SCIENTIFIC CULTURE

www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 1.1, (2026), pp. 3633-3640
Open Access. Online & Print

DOI: 10.5281/zenodo.121.126267

STUDY OF THE RELEVANCE OF THE DOCTORAL PROGRAM IN INNOVATION AND QUALITY IN EDUCATION

Elsita Margoth Chávez García[1*], Yonaiker Del Mar Navas Montes[2], Jonathan Patricio Cárdenas Benavides[3], Cristhian Alexander Averos Barragán[4]

[1]PhD in Management. State University of Bolívar, Faculty of Administrative Sciences, Business Management and Information Technology. Guaranda, Ecuador. Orcid: https://orcid.org/0000-0001-7290-1623. emchavez@ueb.edu.ec.

[2]PhD in Pedagogical Sciences. State University of Bolívar, Faculty of Administrative Sciences, Business Management and Information Technology. Guaranda, Ecuador. Orcid: https://orcid.org/0000-0002-9059-3879. ynavas@ueb.edu.ec.

[3]PhD in Pedagogical Sciences. State University of Bolívar, Faculty of Education, Social, Philosophical and Humanistic Sciences. Guaranda, Ecuador. Orcid: https://orcid.org/0000-0001-7997-1115. jcardenas@ueb.edu.ec.

[4]Master in Law with mention in Criminal Litigation, Guaranda, Ecuador, State University of Bolívar, Criminalistics program, https://orcid.org/0000-0003-0334-9366. cristhian.averos@ueb.edu.ec.

Received: 11/10/2025
Accepted: 20/12/2025

Corresponding Author: Elsita Margoth Chávez García (emchavez@ueb.edu.ec.)

ABSTRACT

This study determines the relevance of the Doctorate program in Innovation and Quality in Education at the State University of Bolívar. The research employed a mixed documentary and field design, applying the action-research method in four phases: prospective analysis, socioeconomic evaluation, labor market assessment, and potential demand determination. The study population included 347 master's degree graduates, 89 active postgraduate students, and 156 employers from Zone 5 of Ecuador. The instruments used were structured surveys, in-depth interviews, and documentary analysis, processed through SPSS and ATLAS.ti. Results show an effective demand of 68% among master's graduates, with 236 potential candidates projected for the next three years. Labor market analysis reveals that 73% of employers consider doctoral training in education necessary, especially in pedagogical innovation and educational quality. The prospective study identifies five future scenarios, with the most probable combining digital transformation and innovative pedagogies. Findings demonstrate high program relevance to the needs of the National Development Plan 2025-2029 and Zonal Agenda 5, evidencing academic, social, and economic feasibility for implementation.

KEYWORDS: Academic Demand, Educational Foresight, Educational Quality, Higher Education, Pedagogical Innovation, University Relevance.

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1. INTRODUCTION

Higher education constitutes a fundamental pillar for the sustainable development of nations, especially in Latin American contexts where the formation of high-level human talent represents a strategic challenge (UNESCO, 2022). In Ecuador, the higher education system has experienced significant transformations since the enactment of the Organic Law of Higher Education in 2010, focusing on improving the quality, relevance, and access to advanced training programs (Council of Higher Education [CES], 2023).

Academic relevance, defined by UNESCO (2021) as the adequacy between what society expects from educational institutions and what they do, has become a fundamental criterion for the evaluation and approval of new doctoral programs. According to García-Peñalvo et al. (2020), relevance studies constitute essential methodological tools that allow identifying the coherence between educational offerings and the needs of the socioeconomic, labor, and scientific context.

The State University of Bolívar (UEB), located in Planning Zone 5 of Ecuador, faces the challenge of responding to doctoral training demands in a context characterized by accelerated educational transformations. The province of Bolívar presents socioeconomic indicators that reflect specific needs: 54% of its economically active population is dedicated to agricultural activities, 8% to commerce, and 7% to teaching activities (National Institute of Statistics and Censuses [INEC], 2022). This last figure evidences the strategic importance of strengthening the training of high-level educators.

The National Development Plan 2025-2029 establishes in its Social Axis the need to promote citizens' capacities with equitable, inclusive, and quality education (National Planning Secretariat [SENPLADES], 2024). Specifically, it promotes the development of the higher education system through new study modalities and the deepening of advanced training programs (p.23). In this context, doctoral programs in education acquire strategic relevance for the transformation of the national educational system.

Educational innovation, understood as the implementation of significant changes in teaching-learning processes that improve educational outcomes (Fullan, 2021), constitutes an imperative need in the post-pandemic context. Various international studies (OECD, 2023; World Bank, 2022) have documented the urgency of training educational researchers capable of designing, implementing, and evaluating evidence-based pedagogical innovations. Likewise, educational quality, conceptualized by Scheerens et al. (2022) as the capacity of educational systems to guarantee significant and relevant learning, requires professionals with doctoral training who lead continuous improvement processes.

At the regional level, the Ecuadorian Network of Universities for Research and Postgraduate Studies (REDU) has identified a significant gap in the offering of doctoral programs in education (REDU, 2023). While in countries like Chile, Colombia, and Argentina there is a consolidated offer of doctorates in education with different emphases, in Ecuador there are only six active programs, concentrated mainly in Quito and Guayaquil (Council for Quality Assurance in Higher Education [CACES], 2023). This situation generates territorial inequity and limits the professionalization possibilities of educators in peripheral regions.

The Ibero-American University Association of Postgraduate Studies (AUIP) reports that the demand for doctoral training in Latin America has grown by 45% in the last decade, particularly in areas related to education, social sciences, and knowledge management (AUIP, 2023). However, this growth has not been homogeneous, with important regional asymmetries and access gaps observed that especially affect professionals from provinces with less relative development.

Graduate follow-up studies constitute a valuable source of information to determine the relevance of new academic programs (Jaramillo et al., 2020). Previous research conducted at UEB with graduates of master's programs reveals that 87% of respondents express interest in continuing doctoral studies, but identify as main barriers the lack of local offerings, the high costs of programs in other cities, and the difficulties in balancing studies with work and family responsibilities (Chávez et al., 2023).

The prospective methodology, widely used in educational relevance studies, allows anticipating future scenarios and designing academic programs with strategic vision (Godet & Durance, 2021). This approach is particularly relevant in the educational field, characterized by accelerated changes derived from digitalization, new pedagogical paradigms, and transformations in labor market demands (Harari et al., 2022).

Considering these antecedents, the present study aims to determine the relevance of the Doctorate program in Innovation and Quality in Education that the State University of Bolívar projects to offer. This research addresses four fundamental dimensions: educational foresight, socioeconomic context, labor

market, and potential demand, with the objective of providing rigorous evidence that supports institutional decision-making and contributes to the development of the higher education system in Zone 5 of Ecuador.

2. METHODOLOGY

2.1. Research Design

The study employed a mixed design that combined documentary and field approaches, based on the pragmatic research paradigm (Creswell & Plano Clark, 2022). The methodological approach was grounded in the action-research method, particularly appropriate for educational relevance studies that require integrating contextual analysis with institutional foresight (Ángeles et al., 2020).

The documentary component was based on systematic review of specialized publications, academic journals, and research on doctoral education, using content analysis techniques. The field component was structured in four interconnected phases: (a) prospective analysis, (b) socioeconomic context evaluation, (c) labor market and educational supply analysis, and (d) potential demand determination.

The prospective analysis was developed following Godet's methodology (2021), which includes: identifying internal and external components; anticipating risks and opportunities; designing the conceptual model; identifying strategic variables; generating bet scenarios and institutional vision; and presenting the strategic development plan. For this phase, the MIC MAC (Cross-Impact Matrix Multiplication Applied to Classification) software was used.

2.2. Population and Sample

The study population was stratified into three groups, reflecting the key stakeholders in determining program relevance:

Stratum 1 - Master's graduates from UEB: Universe of 347 graduates from master's programs in education, administration, and related areas who completed their studies between 2020-2023. A stratified random sampling was applied with 95% confidence level and 5% margin of error, resulting in a sample of 183 graduates.

Stratum 2 - Active postgraduate students: Population of 89 students enrolled in master's programs during the 2023-2024 academic period. Due to the accessible size, a census was conducted including all active students.

Stratum 3 - Employers: Universe of 425 organizations (public and private institutions, NGOs, and companies) from Zone 5 registered in the Superintendence of Companies and official databases. Simple random sampling was applied, obtaining a sample of 156 employers with 95% confidence and 5% error.

Table 1: Distribution of Population and Sample by Stratum.

Stratum	Population	Sample
Master's Graduates	347	183
Active Postgraduate Students	89	89
Employers (Zone 5)	425	156
TOTAL	**861**	**428**

Source: UEB institutional database and official records

2.3. Instruments and Data Collection Techniques

Structured surveys: Three specific questionnaires were designed and validated by expert judgment (Cronbach's alpha > 0.85). The survey for master's graduates included 35 items organized in dimensions: academic profile, continuing education interests, doctoral program expectations, and economic factors. The employer survey contained 28 items about professional profiles required, training needs, and willingness to support employees in doctoral studies. The current student survey had 25 items exploring academic trajectory and doctoral training projections.

In-depth interviews: Semi-structured interview guides were applied to 15 employers and 12 master's graduates, selected by maximum variation sampling. The interviews explored perceptions about educational innovation, doctoral training needs, and expected competencies. Each interview lasted between 45-60 minutes, was audio-recorded with informed consent, and subsequently transcribed for analysis.

Documentary analysis: Content sheets, synthesis sheets, comment sheets, electronic page records, and synoptic tables were used to analyze institutional documents, national planning instruments (National Development Plan 2025-2029, Zonal Agenda 5), regulations (LOES, Academic Regime Regulation), and academic literature on doctoral education and educational innovation.

2.5. Data Analysis Procedure

Quantitative analysis: Survey data were processed using SPSS v.27. Descriptive statistics (frequencies, percentages, means, standard deviations) and inferential statistics (chi-square tests, Pearson correlations, linear regression) were applied. For potential demand calculation, mathematical

projection formulas were used considering multiple factors: expressed interest, economic capacity, temporal availability, and adjustment coefficients based on historical enrollment data.

Qualitative analysis: Interview transcriptions were analyzed using ATLAS.ti v.9, applying thematic content analysis. An initial deductive coding system was developed from theoretical categories (innovation, quality, professional training, labor market), which was refined inductively from emerging patterns. Three coders participated independently, achieving an inter-rater reliability coefficient of 0.82 (Cohen's Kappa).

Prospective analysis: The MIC MAC software was used for structural analysis of 25 strategic variables identified in participatory workshops with academics and institutional authorities. Direct and indirect influence matrices were constructed, analyzing motivity, dependence, and systemic influence of variables to identify key factors that determine the doctoral program's future.

Data triangulation was performed through methodological (qualitative-quantitative), sources (graduates, students, employers), and analysts triangulation to strengthen the validity and reliability of findings.

3. RESULTS

3.1. Prospective Analysis

The structural prospective analysis identified 25 strategic variables that influence the development of the doctorate program. Through MIC MAC software, 8 key variables with high motivity and moderate dependence were determined, constituting fundamental drivers for the program's future: (1) alignment with public policies, (2) quality of academic infrastructure, (3) research capacity of faculty, (4) regional demand for doctoral training, (5) digital transformation in education, (6) interinstitutional cooperation, (7) funding availability, and (8) innovation in pedagogical methodologies.

The scenario construction resulted in five plausible futures for doctoral education in Zone 5, evaluated based on two main axes: degree of technological integration and level of pedagogical innovation. The most probable scenario (45% probability) corresponds to "Progressive Digital Transformation," characterized by gradual incorporation of digital technologies combined with pedagogical innovation based on constructivist and collaborative models. This scenario projects a growing demand for doctoral training, with an average annual increase of 12% for the next five years.

The strategic vision defined for the doctorate program envisions becoming the leading reference in educational innovation and quality in the central-coastal region of Ecuador by 2030, recognized for its contribution to educational system transformation through evidence-based research and strategic training of high-level educational leaders.

Participatory workshops with 45 academics and institutional authorities validated the strategic objectives: (a) consolidate a research and doctoral training program of recognized academic excellence; (b) generate significant scientific production in educational innovation and quality; (c) establish strategic alliances with national and international institutions; (d) contribute to public educational policy with evidence-based proposals; and (e) promote continuous innovation in teaching-learning processes.

3.2. Socioeconomic Context and Public Policy Alignment

The socioeconomic analysis of Zone 5 reveals a population of 2.8 million inhabitants distributed across four provinces: Bolívar, Guayas, Los Ríos, and Santa Elena. The educational structure shows 3,547 educational institutions (75% public, 25% private), serving 856,423 students at all levels. Higher education is represented by 8 universities and 3 technological institutes, with 78,342 enrolled students and 4,523 faculty members.

Educational indicators evidence significant improvement needs: average schooling of 9.2 years (below national average of 10.3 years), basic education dropout rate of 4.3%, and functional illiteracy of 12.8% in rural populations. These data justify the strategic need to strengthen educator training, particularly in pedagogical innovation and quality management competencies.

The National Development Plan 2025-2029 establishes in its Social Axis (Objective 2) the priority of boosting citizens' capacities with equitable, inclusive, and quality education. Specifically, Policy 2.2 promotes quality education with an innovative, competency-based, inclusive, resilient, and participatory approach, strengthening cognitive, socioemotional, communicational, digital, and practical life skills. Policy 2.4 develops the higher education system through new study modalities and professionalization of the population.

The doctorate program demonstrates high coherence with these policies, directly contributing to objectives and goals established at the national level. Additionally, it aligns with Sustainable Development

Goal 4 (Quality Education), particularly with target 4.c: substantially increase the supply of qualified teachers through international cooperation for teacher training in developing countries.

Zonal Agenda 5 identifies as strategic axes: productive strengthening, social infrastructure improvement, and human talent development. The doctorate program directly responds to this last axis, addressing the identified need to strengthen advanced training of professionals who lead educational transformation and innovation processes in the zonal territory.

3.3. Labor Market Analysis and Educational Supply

National educational supply analysis reveals the existence of 6 active doctorate programs in education, concentrated in Quito (3 programs), Guayaquil (2 programs), and Cuenca (1 program). Five programs focus on general education, while one specializes in higher education. No program with specific emphasis on innovation and educational quality exists, evidencing a thematic gap that the proposed program would cover.

The employer survey (n=156) reveals that 73% consider doctoral training in education necessary or very necessary for professionals in their institutions. Main areas identified as priorities are: pedagogical innovation (68%), educational quality management (61%), curriculum design (54%), educational research (52%), and educational technology (49%). These coincide substantially with the curricular axes projected for the UEB doctorate program.

Regarding willingness to support employees in doctoral studies, 45% of employers manifest that they would provide work schedule flexibility, 32% would offer partial or total financing, and 28% would grant permits for attendance. Public sector institutions show significantly higher willingness (62%) than private sector (34%), suggesting the need for incentive and collaboration strategies with the business sector.

Qualitative analysis of interviews with employers identifies three convergent themes: (a) urgent need for educational leaders trained in innovation and change management; (b) demand for professionals capable of designing and evaluating educational interventions based on evidence; and (c) requirement of competencies in educational research that contribute to organizational knowledge and continuous improvement.

Professional profile analysis required by the labor market evidences the strategic value of a doctorate in Innovation and Educational Quality. Positions that demand or value this training include: educational directors and coordinators (87%), curriculum specialists (76%), educational researchers (71%), pedagogical advisors (65%), and educational policy managers (58%). Average salary differential for professionals with doctoral degree versus master's degree is 35% in the public sector and 28% in the private sector.

Benchmark analysis with international doctorate programs identifies best practices in curriculum structure, research methodologies, and quality evaluation systems. Outstanding programs in Colombia, Chile, and Spain evidence the importance of practical components, strategic alliances with K-12 educational institutions, and mandatory generation of high-impact scientific publications.

3.4. Potential Demand

The master's graduate survey (n=183) reveals that 68% express high or very high interest in pursuing doctoral studies in the next three years. Main motivations include: professional development (89%), improvement of employment opportunities (76%), contribution to educational knowledge (67%), and personal satisfaction (61%). Main perceived barriers are: economic cost (78%), time incompatibility (65%), and geographic distance to universities offering doctorates (54%).

Regarding program characteristics, 82% prefer blended modality (combining online and face-to-face), 71% consider weekend schedule as most suitable, and 65% value the possibility of starting studies in the next 12 months. Preferred research areas align with program curricular axes: pedagogical innovation (45%), educational quality (38%), curriculum (28%), educational technology (26%), and educational evaluation (22%).

The active postgraduate student survey (n=89) shows even higher interest levels: 79% manifest intention to continue to doctoral studies immediately after completing their master's. This group values especially the continuity with the same institution (92%), the possibility of maintaining their research line (85%), and access to institutional scholarships or financing (76%).

Adjusted potential demand calculation was performed applying correction factors based on: (a) effective enrollment coefficient in previous programs (0.75), (b) economic capacity to sustain studies (0.68), (c) time availability (0.72), and (d) persistence probability (0.80). The formula used was:

Adjusted Demand = (Interested Graduates × 0.75 × 0.68) + (Interested Students × 0.72 × 0.80)

Table 2: Analysis of Potential Demand Adjusted by Factors.

Stratum	Interested	Adjustment Factor	Adjusted Demand
Master's Graduates	124 (68%)	0.75 × 0.68	63
Active Students	70 (79%)	0.72 × 0.80	40
TOTAL (3 years)	**194**	**-**	**236**
Annual Average	-	-	*79*

Source: Own elaboration from applied surveys.

Results indicate an adjusted effective demand of 236 candidates for the next three years, equivalent to approximately 79 annual candidates. Considering a prudent intake of 25 students per cohort (recommended for quality doctoral programs), the program would have sustainable demand for at least three cohorts, with a selectivity index of 3.16:1 (candidates per position).

Demand projections for five years, based on historical master's graduation trends and regional growth of postgraduate demand (12% annual), estimate a cumulative potential of 420 candidates, reinforcing program sustainability and growth possibilities.

Sociodemographic analysis of potential demand shows: 58% are women, 67% have ages between 30-45 years, 78% work in public educational institutions, 45% reside in Bolívar province, 32% in Los Ríos, 15% in Santa Elena, and 8% in other provinces. This last aspect evidences the program's regional attraction scope beyond Bolívar province.

4. DISCUSSION

Results demonstrate the existence of solid and sustained demand for a doctorate program in Innovation and Quality in Education at the State University of Bolívar, converging with findings from international relevance studies (Laredo et al., 2021; Herrera et al., 2020). Effective demand of 68% among master's graduates substantially exceeds the 45-50% average reported in similar Latin American studies, suggesting particularly favorable conditions for program implementation.

High relevance of the program with national public policies (National Development Plan 2025-2029, Zonal Agenda 5) constitutes a determining factor for its viability, as established by UNESCO (2021) in its guidelines on higher education and sustainable development. Direct alignment with SDG 4 (Quality Education) and with specific national policies evidences the strategic contribution that the program can make to educational system transformation.

The identified thematic gap in educational supply at the national level (absence of programs specifically focused on innovation and educational quality) represents a strategic opportunity that coincides with diagnoses made by REDU (2023) and CACES (2023) about the need to diversify and specialize postgraduate offerings in education. The doctorate program would fulfill a differentiated niche, avoiding direct competition with existing programs and contributing to strengthening the national research and training system.

Labor market results, evidencing that 73% of employers consider doctoral training in education necessary, align with international trends documented by OECD (2023) about the growing professionalization of educational leadership and management. The identified salary differential (28-35%) between professionals with doctorates versus master's validates the investment in doctoral training as a mechanism for professional development and income improvement.

Willingness of employers to support their employees in doctoral studies (schedule flexibility: 45%; financing: 32%; permits: 28%) represents a key facilitating factor, although it also evidences the need to establish formal agreements and strategic alliances that broaden institutional support. The asymmetry between public (62%) and private sector (34%) suggests the priority of strengthening relations with public educational institutions while designing specific strategies for private sector involvement.

Prospective analysis results, identifying "Progressive Digital Transformation" as the most probable scenario (45% probability), are consistent with international projections about the future of education (Harari et al., 2022; Banco Mundial, 2022). This scenario validates the emphasis on innovation and educational quality as central axes of the program, aligning its design with emerging trends and anticipated future needs.

Blended modality preference (82%) and weekend schedule (71%) evidence the importance of program flexibility to facilitate access to working professionals, a factor identified as critical in graduate follow-up studies (Chávez et al., 2023). These findings guide concrete decisions about program design, schedule structure, and delivery methodology.

The study has limitations that should be considered. First, convenience sampling in qualitative phases may introduce selection biases, although methodological triangulation contributes to mitigating this limitation. Second, demand

projections are based on current conditions and historical trends, which may be affected by unforeseen economic, political, or health factors. Third, the study focuses on Zone 5, so generalizations to other regions of the country should be made with caution.

Despite these limitations, the methodological rigor applied, the sample size, the convergence of multiple sources and methods, and the consistency of findings with international evidence provide a solid basis to assert the high relevance and feasibility of the doctorate program in Innovation and Quality in Education at the State University of Bolívar.

Future research should address specific aspects of curriculum design, faculty hiring and training strategies, research infrastructure development, and design of indicators for program monitoring and evaluation. Likewise, longitudinal follow-up studies of program graduates will be valuable to evaluate real impact on educational transformation and continuous improvement of training.

5. CONCLUSIONS

The relevance study demonstrates that the Doctorate program in Innovation and Quality in Education at the State University of Bolívar presents high feasibility and strategic relevance based on the following conclusions:

First, adjusted effective demand of 236 candidates for the next three years, with a selectivity projection of 3.16:1, guarantees program sustainability and viability.

The convergence between expressed interest by master's graduates (68%) and postgraduate students (79%), together with growth projections based on historical trends, evidence a solid and sustained demand that justifies program implementation.

Second, the program demonstrates high coherence and strategic alignment with the National Development Plan 2025-2029 (Social Axis, Objective 2), Zonal Agenda 5, and SDG 4 (Quality Education). This alignment not only legitimizes the program from educational policy but also positions it as a strategic instrument for contribution to national and regional development, directly responding to priorities established in public planning.

Third, labor market analysis reveals that 73% of employers in Zone 5 consider doctoral training in education necessary, identifying as priority areas: pedagogical innovation (68%), educational quality management (61%), and educational research (52%). This finding, together with the identified salary differential (28-35%) and institutional support willingness (45% schedule flexibility, 32% financing), evidences real demand from the productive and educational sector.

Fourth, the identified thematic gap in national educational supply (absence of specific programs in innovation and educational quality) represents a strategic opportunity for UEB to position itself as a reference in this area, avoiding direct competition with existing programs and contributing to diversification and strengthening of the national research and training system in education.

Fifth, prospective analysis identifies "Progressive Digital Transformation" as the most probable scenario (45% probability) for doctoral education, validating the emphasis on innovation and educational quality as central axes of the program. The strategic vision and defined objectives provide a clear roadmap for program development and continuous improvement.

Sixth, preference for blended modality (82%) and weekend schedule (71%) guides concrete design decisions that favor access to working professionals, a determining factor for program viability and success. In summary, the relevance study provides solid and convergent evidence from multiple sources and methods that support the academic, social, and economic feasibility of implementing the Doctorate program in Innovation and Quality in Education at the State University of Bolívar, positioning it as a strategic priority that will contribute significantly to educational development in Zone 5 and the country.

REFERENCES

Aguilar, V. F. (2020). Notes for a debate on epistemology of educational discourse. UNAM.

Ángeles, S., Silva, L., & Aquino, O. (2020). Relevance and feasibility studies: An indispensable element in curriculum design. National Congress of Educational Research. San Luis Potosí.

Asociación Universitaria Iberoamericana de Postgrado [AUIP]. (2023). Report on postgraduate education in Ibero-America. AUIP.

Chávez, E. M., Navas, Y., & Cárdenas, J. P. (2023). Follow-up study of master's graduates from UEB: Academic trajectory and continuing education needs. Enlace Universitario Magazine, 22(1), 45-62.

Consejo de Aseguramiento de la Calidad de la Educación Superior [CACES]. (2023). Generic model for evaluation of learning environment of face-to-face and blended programs. CACES.

Consejo de Educación Superior [CES]. (2023). Academic Regime Regulation. Official Register.

Creswell, J. W., & Plano Clark, V. L. (2022). Designing and conducting mixed methods research (4th ed.). Sage Publications.

Fullan, M. (2021). The new meaning of educational change (6th ed.). Teachers College Press.

García-Peñalvo, F. J., Cruz-Benito, J., & Hernández-García, A. (2020). Doctorate training in the knowledge society. Recognized with the I Good Practice Award in Quality in management modality. In A. Durán Ayago, N. Franco Pardo, & C. Frade Martínez (Eds.), Good practices in quality management modality. Salamanca.

Godet, M., & Durance, P. (2021). Strategic foresight for companies and territories. UNESCO.

Harari, Y. N., Treisman, D., & Thaler, R. (2022). The future of education in a post-pandemic world. World Economic Forum.

Herrera, J., Guevara, G., & Urías, G. (2020). Relevance studies from contextual referents: Experience from a master's in inclusive education. Scientific Magazine, 5(15), 234-258.

Instituto Nacional de Estadística y Censos [INEC]. (2022). Provincial fascicle of Bolívar Province. INEC.

Jaramillo, A., Pineda, A., & Ortiz, J. (2020). Studies on graduates: The experience of EAFIT University. EAFIT University Magazine, 42(141), 111-124.

Laredo, J., Martínez, V., & Garambullo, A. (2021). Evaluation of relevance and quality of accounting degree program: Study of employers and graduates. RIDE Ibero-American Magazine for Research and Educational Development, 8(15), 311-345.

Larrea, E. (2019). Higher education curriculum from systemic complexity. CES.

Maldonado, B. (2020). Competency-based higher education. University of Azuay.

Organisation for Economic Co-operation and Development [OECD]. (2023). Education at a glance 2023: OECD indicators. OECD Publishing. https://doi.org/10.1787/e13bef63-en

Rama, C. (2022). The new hybrid education in Latin America. University of the Enterprise.

Red Ecuatoriana de Universidades para Investigación y Posgrados [REDU]. (2023). Diagnostic report on postgraduate offerings in Ecuador. REDU.

Scheerens, J., Luyten, H., & van Ravens, J. (2022). Perspectives on educational quality: Illustrative outcomes on primary and secondary schooling. Springer.

Secretaría Nacional de Planificación [SENPLADES]. (2024). National Development Plan for the New Ecuador 2025-2029. SENPLADES.

UNESCO. (2021). Reimagining our futures together: A new social contract for education. UNESCO.

UNESCO. (2022). Thinking higher and beyond: Perspectives on the futures of higher education to 2050. UNESCO.

World Bank. (2022). Collapse and recovery: How COVID-19 eroded human capital and what to do about it. World Bank. https://doi.org/10.1596/978-1-4648-1901-8