

Quality of higher education: case study Universidad Autónoma de Guerrero, Mexico

Calidad de la educación superior: estudio de caso Universidad Autónoma de Guerrero, México

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Abstract

From the various theoretical references and scientific research analyzed, the objective was to present in a synthesized way the educational quality indicators at the Autonomous University of Guerrero. The method used was the documentary analysis on the characteristics agreed in the printed and digital literature on education in general and the case of UAGro, in particular. Results, it was obtained that in the emerging countries of Latin America such as Mexico the standards have to do with: a) the number of students served; b) spatial coverage; c) financing obtained by the State and/or the Federation, among others. Conclusions: 1) the educational quality at UAGro is visualized through the linking of said study house with the civilian population, as demonstrated in this COVID 19 pandemic; 2) it is recognized both by civil society and by the three levels of government and accrediting bodies of the quality in the Educational Programs that are offered and 3) from the socioformation, the teaching staff, researchers and students characterize, diagnose and propose concrete solutions to problems real that affect the Guerrero society.

Quality education, Higher education, Knowledge society

Resumen

A partir de los diversos referentes teóricos e investigaciones científicas analizadas, el objetivo fue exponer de manera sintetizada los indicadores de calidad educativa en la Universidad Autónoma de Guerrero. El método empleado fue el análisis documental sobre las características consensadas en la literatura impresa y digital sobre la educación en general y el caso de la UAGro, en particular. Resultados, se obtuvieron que en los países emergentes de América Latina como México los estándares tienen que ver con: a) la cantidad de estudiantes atendidos; b) cobertura espacial; c) financiamiento obtenido por el Estado y/o la Federación, entre otros. Conclusiones: 1) la calidad educativa en la UAGro se visualiza a través de la vinculación de dicha casa de estudios con la población civil como quedó demostrado en esta pandemia de COVID 19; 2) ostenta reconocimiento tanto de la sociedad civil como de los tres órdenes de gobierno y organismos acreditadores de la calidad en los Programas Educativos que se ofertan y 3) desde la socioformación el personal docente, investigadores y estudiantes caracterizan, diagnostican y proponen soluciones concretas a problemas reales que afectan a la sociedad guerrerense.

Calidad de la educación, Educación superior, Sociedad del conocimiento

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Introduction

This study is part of the line: Socioformation and Quality of Education (Ambrosio, 2018), interrelated with the management of educational institutions of relevance in the current educational revolution, thanks to the convergence of three elements: *a)* advances in cognitive science; *b)* the development, use, and management of high-quality technological platforms and *c)* the radical change like the labor market with operating phenomena such as neoliberalism, which still influences the educational system, a service that tends to be increasingly competitive, accountability, quality policies, etc. (Monarca, 2014; Ondokia & Lloyd, 2014). But beyond business logic, in parallel, higher education subsists as long as it seeks equity, relevance, and social responsibility. “However, there is minimal research regarding the initiation of the quality development process” (Tadesse *et al.*, 2020, p. 1), as also emphasized by Olopade *et al.*, (2016), Tadesse and Gillies (2015) for the context of developing countries.

Slaughter and Leslie (1997) called this competitive current of education “academic capitalism”, understood as “the capacity of higher education institutions to act as a free economic agent in the market for goods and services” (Leal et al, 2014, p.100), which refers to the fact that higher education institutions have the power to compete for financial resources that allow them to operate without depending totally on the financial protection of the State (Wurjaningrum *et al.*, 2020).

Practices of institutional competition for scarce economic resources or even the services of the best professor-researchers who lead projects are explained, in addition to obtaining the most voluminous money bags to guarantee results and in turn, increase their perceptions. The opposite side of the coin is represented by careers or degrees in the “public interest”, such as the social sciences and even the humanities, which have to conform to “accreditation parameters” in order to be considered with official recognition, national validity of the titles or good quality (Ibarra, 2002).

In this sense, Caballero and Almada (2014) stated that educational policies should be oriented to reassess the mission of: higher education institutions, the affirmation of autonomy, diversity and the promotion of democratic values, that is, higher education must have academic quality and social relevance. Where they explicitly propose “four levels of evaluation: 1) relevance and impact of the educational program, based on the actual training needs in the locality-country-region; 2) the academic contributions and added value that characterize the program; 3) the coherence between the mission and the educational project and 4) the academic contributions and the added social value that identify the educational program” (*Idem*, 2014, pp. 130-131).

The general objective was to present in a synthesized way the educational quality indicators at the Autonomous University of Guerrero and for this it was subdivided into three particular goals of the study are: *a)* to expose the socioformative approach as an option to innovate in higher education in Mexico; *b)* summarize the evaluation agencies of higher education in Mexico: The National Association of Universities and Institutions of Higher Education (ANUIES by its acronym in Spanish), The National Council for Science and Technology (CONACYT), Inter-Institutional Committees for the Evaluation of Higher Education (CIEES), National Evaluation Center for Higher Education (CENEVAL), Council for Accreditation of Higher Education (COPAES) and *c)* synthesize eight indicators of educational quality at the Universidad Autónoma de Guerrero and its link with the Guerrero society.

Methodology

The method was based on the theoretical concepts of the socioformative approach; this allows the analysis and interrelation of the physical and geographic elements with socioeconomic aspects. The theoretical-methodological elements of this approach acquired boom due to the paradoxical increase in environmental problems in the world (erosion, food, and water shortages, pollution, deforestation, etc.

It also included the compilation, consultation, examination and selection of printed and digital literature on topics such as higher education, evaluation of higher education, accreditation, natural heritage and tourism from socioformation (Niño-Gutiérrez & Tobón, 2017), society-nature relationship (Salgado *et al.*, 2015), planning and competitiveness (Almazán *et al.*, 2015) and competitiveness variables in a consolidating university (Niño-Castillo *et al.*, 2018).

The present research can be considered exploratory, since it is characterized by a focus on the understanding of the facts. Data collection was performed through a bibliographical survey in the search for information available in national and international publications. Bibliographic research is carried out based on the collection of theoretical references already analyzed and published by written and electronic means, such as books, scientific articles, and academic search engines. This allows the researcher to know what has already been studied on the subject.

Theoretical and conceptual framework

For the construction of the theoretical framework, a bibliographic survey of articles was carried out in the databases of the Scientific Electronic Library Online; Web of Science; Scopus, SciELO using the keywords: higher education and socioformation. Within the framework of these learning scenarios, competences are of great importance as the basis of university to training (Durán *et al.*, 2019). Around this competence, the model of key competences of the 21st Century citizen has been articulated (European Commission, 2006; 2016) that includes: communication in the mother tongue; competence in mathematics; Science and technology; digital competence; learning to learn skills; social and civic competence; entrepreneurship competition: expression competence and cultural awareness. These competencies are recognized by other international organizations such's as the Organization for Economic Development Cooperation (OECD, 2010) or the United Nations Organization for Education, Science and Culture (UNESCO, 2011).

In Latin American countries, when evaluating higher education, it can be seen that the standards emphasized at the graduate or undergraduate level are: a) institutional context (Martínez *et al.*, 2020); b) training (Vargas *et al.*, 2018); c) curriculum; d) faculty-researchers (Niño-Gutiérrez, 2017); e) total enrollment of students; f) total of graduates; g) support staff (CEPAL, 2020); h) infrastructure, among others. In Mexico, in addition to the above, the substantive functions of teaching, research (Niño-Gutiérrez, et al, 2016), and extension of culture are considered significant thanks to the incorporation of collaborative learning pedagogies ad happens in other countries such as Ethiopia (Tadesse *et al.*, 2020) and Turkey (Caliskan *et al.*, 2020).

The evaluation of higher education has to do directly with two types of indicators according to Kells, (1991), the first refers to process indicators that provide more and richer information on the educational reality analyzed, generating judgments and opinions on how to improve said evaluated careers and those performance indicators that allude to the results of the teaching processes, both in what is related “to the institutional effectiveness in the graduation of the students, the learning acquired by them, or the impact of the career on society” (Lamarra & Aiello, 2014, p.40).

In summary, the international regulations on the quality of higher education are synthesized in: a) United States of America: the general accreditation process is carried out by the market and institutional competition in linked to student enrollment, research financing; public fiscal support and private donations; b) in Europe, university quality is evaluated by students based on their capacity for reflection, self-learning and training for employment and c) Latin America have state support, others semi-state or private (Fernández & García, 2021). The main purpose is to give a public guarantee of quality, through the accreditation of carrers with standardized evaluations of minimum conditions (Varea & Coral, 2017).

In Latin America, there is Mexico and to the South of the Capital is the state of Guerrero, whose alma mater is the Universidad Autónoma de Guerrero (UAGro in Spanish); In 2009, the Higher Education Institution (HEI) considered the accreditation of the bachelor's and graduate degrees it offers; In this sense, it is committed to "developing with quality and social inclusion teaching, research, dissemination, extension, and administrative tasks", the city of knowledge is the port of Acapulco (Niño-Gutiérrez *et al.*, 2016, p.7); Figure 1.

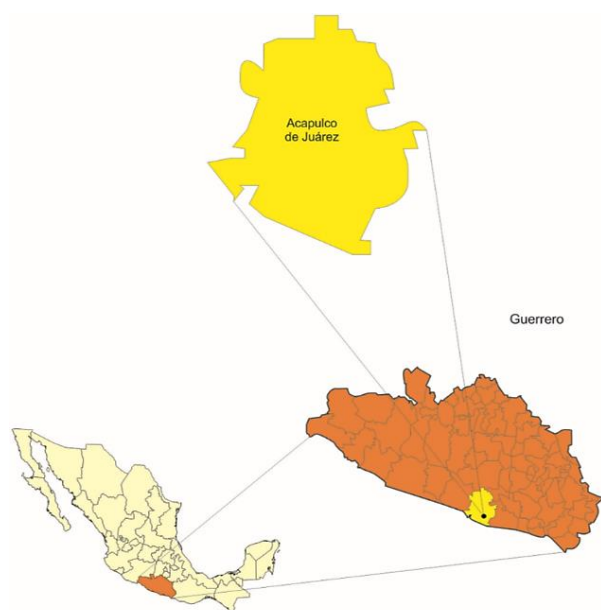


Figure 1 Geographic location of Guerrero, Mexico
Source: Own elaboration

This study was undertaken at UAGro, a public university located in South Mexico (Guerrero State; Niño-Castillo *et al.*, 2020). UAGro is the most qualified academic staff and liberal atmosphere have allowed it to maintain a reputation of excellence, and it continues to be regarded as a leading contributor human talent, scientific, economic and social achievement in favor of the local population. The importance of the present essay lies in joining the world bibliography that is published in print and digitally regarding the evaluation of higher education but with an emphasis on socioformation, given that it is an approach originated and applied in Latin American contexts. The research problem is that the writings on this topic in Mexico are almost non-existent, so this document will be an antecedent to help correct this problem. The objective is to reflect on the variables: evaluation, accreditation, and quality of higher education from socioformation, applied to the HEI in question.

Assessment is a structured and reflective analysis process, which allows understanding the nature of the object of study and making value judgments about it, providing information to help improve and adjust educational action. In this sense, it is convenient to place particular emphasis on a relatively new concept that alludes to socio-formative evaluation. The socio-formative evaluation is based on student performance but also values the role of the teacher in addition to the management of the educational institution. In this way, a comprehensive perception is generated for the government, businesspersons and civil society, currently relevant, when national problems require concrete solutions to local, regional and supranational situations.

This has to do with educational quality, which implies "the transformation of styles of educational management and also of teaching-learning styles to ensure better results" (Caballero & Almada, 2014, p.131). In this sense, Favela and García (2014) enriched the contribution by incorporating the theoretical-practical set that allows graduates to respond to the demands of their profession and, at the same time, enter the labor market, continue their specialty or postgraduate studies, when the programs completed previously in the HEI of origin are recognized and validated.

To fulfill the stated objective, the socioformative approach was considered, whose purpose is to interrelate the biophysical system of elements of nature with the population system, which was enriched by Cruz, Enríquez and Morales (2018), conceptualizing it as an educational approach with didactic, methodological and evaluation bases that seeks to develop human talent (Tobón & Luna-Nemecio, 2020), from the perspective of training people committed to social experience, with an ethical sense, collaborative work, complex thinking and the necessary competencies to face the challenges that life offers in different contexts.

To practice this approach, the students and the facilitators refer to the geographical recognition of the landscape, namely: relief, geology, and climate, which in turn act on water, soil and biota to influence its dynamics and patterns of distribution. It includes the human factor (demography, human settlements, land uses, productive activities, development plans, and programs), which intervene in the natural environment. In this way, it is sought that the training process is in line with the challenges of the knowledge society, which involves collaborative work (Tobón *et al.*, 2015).

Indicator	Result at UAGro
Contribution to quality education in Guerrero society	Training and human talent through a competency-based approach
Increase in national and international student mobility	Creation of the Virtual University
Creation of five regional campuses of Higher and Postgraduate Education	Multimodal, distance and virtual continuing education during the Covid-19 pandemic
Links with the State and Civil Society	High-tech equipment
Educational services accessible to the vulnerable population	UAGro costs per student are lower than in Higher Education institutions in Mexico
UAGro consolidates in the South-Southeast Region of Mexico	Massive access to information and communication technologies

Table 1 Qualitative indicators in quality education of the Autonomous University of Guerrero
Source: Niño-Castillo *et al.*, 2018

Results

The interdisciplinary research approach includes the human factor that intervenes in the natural environment, it is the one that best adheres to the evaluation of higher education from the socioformation given that it interrelates the student, teaching and institutional dynamics (Niño-Gutiérrez, 2021), where each of the actors contributes their knowledge to solve specific problems they face in their real contexts. For example, the graduate's profile contributes to the strengthening of the social fabric where they are located (Aguilar-Fernández, *et al.*, 2021).

The evaluation of higher education is essential because it is useful to train the human talents of the future with the necessary skills and knowledge to “think, act, work, exercise their rights and guarantee the duties of life, regardless of their place of work, birth or existence: linguistic competences (national and foreign) ... as well as more and more emotional competences” (Roegiers, 2014, p. 9).

The socio-formative evaluation of higher education can be seen from three methodological axes, according to Servín and Vázquez (2017): 1) resolution of context problems; 2) determination of the level of performance based on criteria, evidence and evaluation instruments, and 3) identification of achievements and actions to improve the process.

The certification is the accreditation granted to autonomous institutions and their programs that have achieved satisfactory standards in the quality evaluation process. Thus understood, accreditation is the culmination of any evaluation process. Accreditation can be granted at the institutional level and/or academic programs. Its granting means that accredited institutions and programs are more reliable” (Hernández, 2006, p. 53).

In the case of Mexico, the accrediting bodies for higher education are, among others, the National Association of Universities and Institutions of Higher Education (ANUIES), “which has among its functions the accreditation of public institutions and, more recently, of individuals” (*Idem*, 2006). The National Council for Science and Technology (CONACYT) and the Inter-institutional Committees for the Evaluation of Higher Education (CIEES) which accredit undergraduate and graduate programs in various fields of knowledge. The National Evaluation Center for Higher Education (CENEVAL) is the one in charge of applying the evaluation of both entry and exit students, among others.

A key concept related to accreditation is certification, and in this case, reference will be made in particular to the ISO 9001: 2008 standard, given that it is the one in force at UAGro; Said certification is a tool to reach foundations as well as cooperation organizations to compete for economic resources to finance the studies of the undergraduate, master's or doctoral students, from the economic exchanges to which you can compete in Mexico (SEP, CONACYT, Mixed Funds, Sector Funds) or abroad (Fabela & García, 2014).

The certification of administrative processes includes strategic planning (López, 2005; Ruíz, 2005), which aims to respond to the needs, shortcomings, aspirations in the business, educational and even human areas in general, in order to reach results that contribute to solving needs. Thus, the inventory of needs should be the starting point of any planning process (Sposito, 2005, p. 45). This, from the point of view of the existential needs of having and doing according to the pillars of current education: being, knowing, doing, and living with others.

All public HEIs such as UAGro have a permanent vocation; Since 1960, it seeks to definitively consolidate itself in the entity as the highest house of studies, for which it strengthens its weaknesses, so the vision of 2030 is to obtain a set of positive results in different areas, as an approach to the client who wants face-to-face studies, semi-presidential and remote, "that is, connected to millions of resources, which we take advantage of to construct meanings in a different and more sophisticated way" (Cassany, 2012, p. 50).

The Educational Programs (PE) of the bachelor's, master's and/or doctorates that make up higher education at UAGro are fundamental pillars of the Quality Management processes, hence, on July 15, 2016, "The design, evaluation and/or updating of Bachelor level study plans and the process of improvement of study plans and programs" (UAGro, 2016, p. 33), to face the current challenges of the Guerrero context.

As part of the evaluation of the UAGro and the search for its certification, in 2016 the certification of the process "Development and Evaluation of Competences" was obtained, in addition to the "Academic Evaluation Area in the Quality Management System (ISO 9001: 2008)" (*Ibid*, 2016, p. 34-35), to strengthen the skills and competencies of the members of 76 recognized Academic Bodies (AC) of the university.

In April 2016, the UAGro had 75 PE of Higher University Technician (TSU) and Bachelor's degree, which represented a total enrollment of 32 042 students enrolled in 21 BA of bachelor's degrees, recognized for their Quality: "11 accredited by the Council for Accreditation of Higher Education (COPAES) and 10 evaluated at level 1 by the Inter-institutional Committees for the Evaluation of Higher Education (CIEES)" (*Ibidem*, p. 75), which represented 89% of the total enrollment of bachelor's degrees of good quality (Table 2).

Indicator	Result
Enrollment currently serving	94 000 students
Spatial coverage in the state	80%
Educational offer in Baccalaureate	50
Educational offer in bachelor's degree	74
Educational offer in Postgraduate Degree	42
Full Time Teachers	976
Academic plant consolidated with full-time professors hold a desirable profile (PRODEP-SEP)	879
National Register of Quality Postgraduate Programs (PNPC)	38
Professors in the National System of Research	175
The state research is generated in classrooms, experimental campuses and laboratories	80%

Table 2 Quantitative indicators in quality education of the Autonomous University of Guerrero.

Source: UAGro, 2021

Another element of the quality of higher education offered by the UAGro is represented by 84.5% of the Full-time Teachers who are enrolled in the Teaching Professional Development Program (PRODEP), so that quality is a principle that inspires the work of the university community and it is expressed in high standards of institutional performance, the quality of its educational programs, in the integral formation of the student, where management is at the service of the development of the Educational and Academic Model (UAGro, 2017).

Therefore, the UAGro since 2013 has a brand image that identifies the IES; Other competitive advantages are: 1) a higher quality service is offered than other public and private HEIs; 2) a greater number of services is offered to Guerrero society; 3) important innovations are made in the virtual university and 4) the costs per student of the UAGro are the lowest of all HEIs in Mexico (Pertusa et al, 2013, p. 201).

Even so, higher education in Guerrero is growing, so the University expands its access, in addition to diversifying the educational offer, such as the 35 new careers, including Clean Energy Engineering; Disaster Prevention and Civil Protection; Mines; Sustainable Food Production; Topography and Geomatics; Bachelor's degrees in Food Science and Technology; Government and Public Management; Nutrition and Food Science (UAGro, 2017).

In mid-2018 the UAGro had 28 programs recognized in the National Register of Quality Postgraduates (PNPC-CONACYT), as well as a Program for the Incorporation of Indigenous Women for the Regional Strengthening of the State of Guerrero in which 25 indigenous women were integrated, and in the research area a total of 135 Professor-Researchers were achieved in the National System of Researchers of CONACYT (UAGro, 2018); with this, the university's substantive functions promote links with the various sectors of the population, the government and the business community.

Starting in 2019, the school is the instrument in overcoming the disciplinary structure of higher education, given that now the power is held by those who act, "who undertakes, organizes, manages" (Roegiers, 2014, p.11).

In order to be at the optimal frequency for the development of professional activities in the knowledge society. In this sense, González (2018) explained that in the knowledge society people should manage to solve problems in the context, support actions to transform the environment, in addition to considering self-evaluation (internal), coevaluation (among institutional peers), hetero-evaluation (external) and meta-evaluation.

The UAGro is a medium Higher Education Institution in Mexico, compared to the National Autonomous University of Mexico, which served 360 883 students in the 2019-2020 school year; 79 doctorates; 57 master's degrees and 42 quality specialties (UNAM, 2021). With excellent physical infrastructure such as: libraries, workshops, laboratories, classrooms, cubicles, buildings, computer centers, auditoriums and audiovisual classrooms.

Since January 2020, the UAGro has responded with its commitment to social responsibility by implementing concrete actions to safeguard the lives of the people of Guerrero during COVID 19 pandemic. It provides support to society in general, to the authorities of the three orders of government, where it has distributed antibacterial gel (60 thousand liters) free; opening university canteens in Acapulco (50 000 servings) and Chilpancingo (178 thousand servings); university brigades that assisted 100 communities in the interior of the state, benefiting 80 000 people, including others activities (UAGro, 2021).

Conclusions

The UAGro is the highest house of studies in Guerrero since it is of a public nature, it enhances this merit since it has managed to transcend internal and external evaluation to such a degree that it is recognized as a quality university with social inclusion, in addition to having accredited 74 PE of Higher-level as well as the enrollment of 38 postgraduates in the National Register of Quality Postgraduate (PNPC) of CONACYT.

Socioformation as a novel approach that is applied in local Latin American contexts contributes to the characterization, diagnosis, prognosis, and implementation of particular strategic plans and programs in even regional, state, and national settings. Where collaborative work is essential in addition to the socialization of achievements or goals achieved in the academy but that contributes positively to the solution of real problems in specific places.

References

- Aguilar-Fernández, M., Monroy-Reza, A., García-Jarquín, B., Tinoco-Silva, A. I., Álvarez-Cedillo, J. A. & Álvarez-Sánchez, T. (2021). Habilidades de investigación científica en los alumnos de nivel superior. Estudio de caso. *Directorio*, 11(42), 61-82. <https://docplayer.es/213227983-Revista-posibilidades-educativas.html>
- Ambrosio, R. A. (2018). La socioformación: un enfoque de cambio educativo. *Revista Iberoamericana de Educación*, 76(1), 57-82. <https://doi.org/10.35362/rie7612955>
- Caballero, J. & Almada, C. (2014). Evolución de los mecanismos de evaluación de la calidad de la Educación Superior en Paraguay. En Héctor A. Monarca y Javier Valle. (coords.). *Evaluación de la calidad de la Educación Superior en Iberoamérica*. (Pp. 125-164). Madrid: Grupo de Investigaciones sobre Políticas Educativas Supranacionales-Universidad Autónoma de Madrid. <https://bit.ly/39TF9u1>
- Caliskan, O., Akin, S. & Enging-Demir, C. (2020). Democratic environment in higher education: The case of a Turkish public university. *International Journal of Education Development*. 72 (2020) 102129. <https://doi.org/10.1016/j.ijedudev.2019.102129>
- Cassany, D. (2012). *En Línea. Leer y escribir en la red*. Barcelona: Anagrama.
- CEPAL (2020). *Universalizar el acceso a las tecnologías digitales para enfrentar los efectos del COVID-19. Informe Especial Núm. 7. COVID-19 Respuestas*. www.cepal.org
- Comisión Europea (2006). *Competencias clave para el aprendizaje permanente. Recomendación 2006/962/CE del Parlamento Europeo y del Consejo de 18 de diciembre de 2006, sobre las competencias clave para el aprendizaje permanente*. [Diario Oficial L 394 de 30.12.2006]
- Comisión Europea (2016). *DigCompOrg. Digitally Competent Educational Organisations*. <https://ec.europa.eu/jrc/en/digcomporg>
- Cruz, M. L.; Enríquez, S. A. & Morales, M. L. (2018). *La evaluación en el Modelo Educativo del Instituto Politécnico Nacional. Un análisis desde la socioformación*. CDMX: IPN.
- Durán, M. C., Prendes, M. P. & Gutiérrez, I. P. (2019). Certificación de la competencia digital docente: propuesta para el profesorado universitario. *RIED. Revista Iberoamericana de Educación a Distancia*, 22(1), 187-205. Doi: 10.5944/ried.22.1.22069
- Fabela, M. & García, A. (2014). Gestión de la calidad educativa en educación superior del sector privado. *Magis. Revista Internacional de Investigación en Educación*, 6(13), 65-82. <https://bit.ly/3otbpIf>
- Fernández, C. & García, M. (2021). Modelos de evaluación de la Educación superior: los circuitos de comunicación científica en México. *Yeiya*, 2(1), 5-16. <https://journals.tplondon.com/yeiya/article/view/1549>
- González, P. (2018). UVE socioformativa: estrategia didáctica para evaluar la pertinencia de la solución a problemas de contexto. *IE Revista de Investigación Educativa de la REDIECH*, 9(16), 133-153. <https://bit.ly/2VMZyZa>
- Hernández, A. (2006). La acreditación y certificación en las instituciones de educación superior. Hacia la conformación de circuitos académicos de calidad: ¿Exclusión o integración??. *Revista del Centro de Investigación. Universidad La Salle*, 7(26), 51-61. <https://bit.ly/3IP988v>

Ibarra, E. (2003). Capitalismo Académico y Globalización: La Universidad reinventada. *Educacao & Sociedade*, 24(82), 1-8. <https://bit.ly/2JWuBz0>

Kells, H. (1991). La insuficiencia de los indicadores de rendimiento para la educación superior: la necesidad de un modelo más global y formativo. En Francisco Mario de Miguel, José Ginés Mora y Sebastián Rodríguez (coords.). *La evaluación de las Instituciones Educativas* (pp. 93-120). Madrid: Consejo de Universidades.

Lamarra, N. & Aiello, M. (2014). La evaluación universitaria en Argentina en el marco de América Latina. Situación y desafíos en relación al aseguramiento de la calidad. En Héctor A. Monarca y Javier Valle. (coords.). *Evaluación de la calidad de la Educación Superior en Iberoamérica*. (Pp. 21-48). Madrid: Grupo de Investigaciones sobre Políticas Educativas Supranacionales-Universidad Autónoma de Madrid. <https://bit.ly/2VI1J0c>

Leal, M.; Robin, S.; Maidana, M. & Lazarte, M. (2014). Las Universidades Nacionales frente a la evaluación externa. Percepciones académicas y breve estado del arte. En Héctor A. Monarca, H. y Javier Valle. (coords.). *Evaluación de la calidad de la Educación Superior en Iberoamérica*. (Pp. 93-124). Madrid: Grupo de Investigaciones sobre Políticas Educativas Supranacionales-Universidad Autónoma de Madrid. <https://bit.ly/3oujUCZ>

López, M. (2005). *Planeación y evaluación del proceso enseñanza-aprendizaje*. Ciudad de México: Trillas.

Martínez, R., Palma, A. & Velásquez, A. (2020). *Revolución tecnológica e inclusión social. Reflexiones sobre desafíos y oportunidades para la política social en América Latina*. Serie Políticas Sociales. Núm. 233, Santiago: CEPAL.

Monarca, H. (2014). Introducción. Evaluación de la calidad de la Educación Superior. En Héctor A. Monarca, H. y Javier Valle. (coords.). *Evaluación de la calidad de la Educación Superior en Iberoamérica*. (Pp.13-20). Madrid: Grupo de Investigaciones sobre Políticas Educativas Supranacionales-Universidad Autónoma de Madrid. <https://bit.ly/33RIZB7>

Niño-Castillo, I. N., Niño-Gutiérrez, N. S., Niño-Castillo, J. E. & Rojas-Copa, A. E. (2020). Territroy, vulnerability and sustainability in the coastal-tourist strip of Acapulco bay. *Journal of Business Development Strategies*. 6(17), 7-19. <https://bit.ly/3lZaC3K>

Niño-Castillo, J.; Niño-Gutiérrez, N.S. & Niño-Castillo, I. N. (2018). De la educación presencial a virtual: caso la UAGro. En Sánchez, José y Mayorga, Paola (Eds.). *La Competitividad como detonante para la mejora social*. Guadalajara: RIICO. pp. 1950-1963. <https://bit.ly/2SP7LxT>

Niño-Gutiérrez, N. S. (2021). Reflexión sobre la gamificación, geografía y educación post-pandémica. En J. Luna-Nemecio (coord.). *Memorias del Sexto Congreso Internacional de Investigación en Socioformación y Sociedad del Conocimiento (CSIFOR 2021)*. Cuernavaca: CIFE. <https://www.researchgate.net/profile/Nau-Silverio-Gutierrez/publications>

Niño-Gutiérrez, N. S. (2017). Natural heritage and tourism in a higher education in South Mexico. *ECORFAN-Journal Mexico*, 8(19), 29-38. <http://rua.ua.es/dspace/handle/10045/106847>

Niño-Gutiérrez, N. S. & Tobón, S. (2017). El plan de mejora de la Unidad de Aprendizaje Patrimonio Natural y Turismo desde la Socioformación. *Universidad & Ciencia*, 6(1), 98-114. <https://bit.ly/3lMU6QQ>

Niño-Gutiérrez, N. S., Niño-Castillo, I. N. & Niño-Castillo, J. E. (2016). Economic and ecological zoning proposal for La Roqueta Island, Mexico. *ECORFAN-Journal Ecuador*, 3(4), 28-39. https://rua.ua.es/dspace/bitstream/10045/106824/1/Nino_etal_2016_ECORFAN-Ecuador.pdf

Niño-Gutiérrez, N. S.; Saldaña, J. & Segrelles, J. A. (2016). La certificación de competencias en la UAGro (2009-2016). *Revista Internacional de Formación y Gestión del Talento Humano*, 1(1), 1-13. <https://bit.ly/36PLgxn>

OCDE (2010). *Working paper 21st Century skills and competences for new millenium learners in OECD countries*. <https://bit.ly/2L9R8sR>. Doi:10.1787/218525261154

- Olopade, F. E., Adarayome, O. A., Raji, Y., Fasola, A. O. & Olapade-Olaopa, E. O. (2016). Developing a competency-based medical education curriculum for the core basic medical sciences in an African Medical School. *Advances in Medical Education and Practice*, 7(1), 389-398. <https://doi.org/10.2147/AMEP.S100660>
- Ondokia, I. & Lloyd, M. (2014). Teorías críticas del estado y la disputa por la educación superior en la era de la globalización. *Perfiles Educativos*, XXXVI (145), 122-139. <https://bit.ly/37IBBrT>
- Pertusa, E.; Tari, J.; Pereira, J.; Molina, J. & López, M. (2013). Certificación en calidad, resultados empresariales y estructura organizativa en el sector hotelero español. *Intangible Capital*, 9(1), 199-224. <https://bit.ly/2VItwXp>
- Roegiers, X. (2014). *Marco conceptual para la evaluación de competencias*. <https://bit.ly/33PekmV>
- Ruíz, M. I. (2005). *Sistema de planeación para instituciones educativas*. Ciudad de México: Trillas-ITESM.
- Salgado, L. Niño-Gutiérrez, N. S. & Saldaña, J. (2015). La relación sociedad-naturaleza en la educación intercultural guerrerense y enfoque basado en competencias. *Memoria del IX Congreso de la Red Internacional de Investigadores en Competitividad*. 1638-1655. <https://bit.ly/3gkOETS>
- Slaughter, S. & Leslie, L. (1997). *Academic capitalism: politics, policies and the entrepreneurial university*. Baltimore: Johns Hopkins.
- Sposito, E. S. (2005). *Producao do espaco e Redefinicoes Regionais: a construcao de uma temática*. Sao Paulo: UNESP.
- Tadesse, T. & Gillies, R. (2015). Nurturing cooperative learning in higher education classrooms: Evidence of instructional reform and potential challenges. *Current Issues in Education* (Tempe. Ariz), 18(2), 1-17. <https://bit.ly/3ggOEox>
- Tadesse, T.; Gillies, R. M. & Manthunga, C. (2020). Shifting the instructional paradigm in higher education classrooms in Ethiopia: What happens when we use cooperative learning pedagogies more seriously?. *International Journal of Educational Research*. 99 (2020) 101509. <https://doi.org/10.1016/j.ijer.2019.101509>
- Tobón, S.; Guzmán, C.; Hernández, J. & Cardona, S. (2015). La sociedad del conocimiento: estudio documental desde una perspectiva humanista y compleja. *Revista Paradigma*, 36(2), 7-36. <https://bit.ly/39NIUB1>
- Tobón, S. & Luna-Nemecio, J. (2020). Proposal for a new talent concept based on socioformation. *Educational Philosophy and Theory*, 53(1), 21-33. <https://doi.org/10.1080/00131857.2020.1725885>
- UAGro (2016). *Tercer Informe de Labores Dr. Javier Saldaña Almazán 2013-2017*. Chilpancingo: UAGro.
- UAGro (2017). *Cuarto Informe de Labores Dr. Javier Saldaña Almazán 2013-2017*. Chilpancingo: UAGro.
- UAGro (2018). *Primer Informe de Labores Dr. Javier Saldaña Almazán 2017-2021*. Chilpancingo: UAGro.
- UAGro (2021). *Anuario estadístico de la UAGro 2021*. <http://informacionestadistica.uagro.mx/inicio>
- UNAM (2021). *Estadísticas, UNAM 2021*. <http://www.estdisticas.unam.mx/numeralia>
- UNESCO (2011). UNESCO ICT competency framework for teachers. <https://bit.ly/36OuMFV>
- Varea, S. & Coral, M. (2017). Educación Superior en el Ecuador. Investigaciones para una Nueva Agenda de cambios necesarios. Universidad Central del Ecuador. <https://bit.ly/37AD7fM>
- Vargas, C., Hernández, H. & Tovar, T. (2018). Importance of education base on citizens' competences to encourage the competitiveness of the knowledge society. *Contemporary Engineering Sciences*, 11(80), 3981-3990. <https://doi.org/10.12988/ces.2018.88430>

Wurjaningrum, F., Auliandri, T. A. & Kartika, N. (2020). Critical Assessment of Higher Education for Sustainable Development: Evidence in Indonesia. *International Journal of Innovation, Creativity and Change*, 11(11), 335-343. <https://bit.ly/3mTbZ1u>.