

# Revista de Ciencias Sociales

50 *Años*  
ANIVERSARIO

# Factors in the development of university students' job skills in business' careers in Ecuador

**Guim Bustos, Paola\***  
**Marreno Ancizar, Yaimary\*\***  
**Bustamante Ubilla, Miguel Alejandro\*\*\***

## Abstract

Companies demand personnel who have the key's competencies for business. This research aims to determine the development's factors of job skills of university students of business' careers in the province of Guayas, Ecuador. The design is quantitative, non-experimental and cross-sectional, a questionnaire with closed questions and a sample of 318 students was used. An exploratory factor analysis was developed through which key dimensions were configured. The results show five factors that intervene in the development of job competencies called competency learning, professional development planning, relationships and teamwork, professional development events, and work practice in companies. It is concluded that the first three factors identified explain between 17.9%, 11.8% and 10.2% of the variance, accumulating 40.02% of the total variance, this provides a clear orientation of which are the factors with the greatest impact on the development of labor skills. This work has theoretical implications, contributes to the literature with evidence of the factors that intervene in the development of job skills in business' students, and has practical implications because university managers can focus on these factors to develop job skills in students.

**Keywords:** Competency-based education; job skills; pre-professional internships; job placement; universities.

---

\* PhD candidate in Administration Sciences at the The Universidad de la Habana, Habana, Cuba. Master's Degree in Taxation and Finance. Economist. Professor of the Faculty of Economics and Business at the Universidad Católica Santiago de Guayaquil, Guayaquil, Ecuador. E-mail: [paola.guim@cu.ucsg.edu.ec](mailto:paola.guim@cu.ucsg.edu.ec); [elizabethguimb@hotmail.com](mailto:elizabethguimb@hotmail.com) ORCID: <https://orcid.org/0000-0002-1770-4069>

\*\* PhD in Economics. Vice-Dean of Research and Graduate Studies of the Faculty of Economics at the Universidad de la Habana, Habana, Cuba. E-mail: [yaimary@fec.uh.cu](mailto:yaimary@fec.uh.cu); [yaimaryma@gmail.com](mailto:yaimaryma@gmail.com) ORCID: <https://orcid.org/0000-0002-8050-0843>

\*\*\* PhD in Economic and Business Sciences. Magister in Business Management. Associate Professor of the Faculty of Business and Economics at the Universidad de Talca, Talca, Chile. E-mail: [mabu@utalca.cl](mailto:mabu@utalca.cl) ORCID: <https://orcid.org/0000-0002-5079-9856>

# Factores del desarrollo de competencias laborales de estudiantes universitarios en carreras de negocios de Ecuador

## Resumen

Las empresas demandan personal que tenga las competencias clave para los negocios. Esta investigación tiene como objetivo determinar los factores del desarrollo de competencias laborales de estudiantes universitarios de carreras de negocios en la provincia del Guayas, Ecuador. El diseño es cuantitativo, no experimental y transversal, se utilizó un cuestionario con preguntas cerradas y una muestra de 318 estudiantes. Se desarrolló un análisis factorial exploratorio mediante el cual se logró configurar dimensiones clave. Los resultados muestran cinco factores que intervienen en el desarrollo de competencias laborales denominados aprendizaje competencial, planificación desarrollo profesional, relaciones y trabajo en equipo, eventos de desarrollo profesional, práctica laboral en empresas. Se concluye que los primeros tres factores identificados explican entre el 17,9%, 11,8% y 10,2% de la varianza acumulando un 40,02% de la varianza total, esto proporciona una clara orientación de cuáles son los factores de mayor impacto en el desarrollo de las competencias laborales. Este trabajo tiene implicaciones teóricas, aporta a la literatura con evidencia de los factores que intervienen en el desarrollo de competencias laborales en estudiantes de carreras de negocios y tiene implicancias prácticas porque directivos de universidades pueden enfocarse en estos factores para desarrollar las competencias laborales en estudiantes.

**Palabras clave:** Educación basada en competencias; competencias laborales; prácticas pre-profesionales; inserción laboral; universidades.

## Introduction

Organizations in general and especially companies requires in nowadays personnel with key business skills such as: teamwork, use of technologies, especially digital ones, interdisciplinary vision. In this context, the university has the important role of preparing students with these key competencies that companies demand to improve the insertion of students in the labor market.

Empirical evidence shows that universities develop competencies at lower levels than those required by companies, so companies must continuously adapt their processes and methods to develop labor competencies in students (Álvarez-Santullano & De Prada, 2018).

Students' competencies that are required at work have received more attention in the

literature than the methods or factors that are required to achieve the development of these competencies, and consequently there is a gap in the literature on the factors involved in the development of students' job competencies (Virtanen & Tynjälä, 2018). For this reason, the objective of this research is to contribute to reducing this gap of the literature by identifying the factors that need to be addressed for the development of labor competencies of university students of business careers in the province of Guayas-Ecuador.

## 1. Theoretical foundation

Constructivism is a learning theory which explains how people acquire and transform their knowledge based on the experience they acquire in the company, that

is, it considers that learning is a dynamic and interactive process in which the student constructs knowledge (Piaget, 1980; Von Glasersfeld, 1995; Biggs, 2014), and is an active agent in the process of knowledge acquisition (Bada, 2015; Lluch et al., 2017). Competency-based education contains the constructivist teaching approach since it develops competency skills, so that the student can build knowledge (Raelin, 2016; Grande et al., 2021; Tarmo & Kimaro, 2021).

The development of skills and knowledge to improve students' job performance should be a priority in universities (Cázares & Cuevas, 2007), this is achieved through competency-based education that can provide skills and critical reasoning to face the complexities of the work environment (Allen & Simpson, 2019; Bratianu, Hadad & Bejinaru, 2020), so it is necessary to design and develop the skills and knowledge or abilities that students require in the next stages of their development or in their working life (Johnstone & Soares, 2014; Lluch et al., 2017) focusing universities on the processes of developing these skills for work (Peterson & Lundquist, 2021).

Students require skills for working life beyond achieving a specialization at university (Raelin, 2016; Bozu & Aránega, 2017), especially the basic ones to be inserted into the workplace (Cobb, Meixelsperger & Seitz, 2015). In this context, there are several talents required for this insertion, among them, the interdisciplinary vision of business or the ability to get involved in working in two or more disciplines together in the business area (Bajada & Trayler, 2013).

Other competencies are: the ability to adapt to change and the development of transversal skills (Agudo et al., 2013; Raelin, 2016), with a vision of integrating different areas of knowledge (Van den Beemt et al., 2020). Finally, creativity to create or improve products and services (Ghosh, 2014), as well as technological and digital creativity, which are at the base of the requirements of companies and institutions (Pan & Seow, 2016; Spante et al., 2018; Zhao, Pinto & Sánchez, 2021). Digital skills, in addition to being necessary

for work activity in companies, help academic performance and student development (Ramírez et al., 2022).

The transversal competencies that students need to acquire and that must be part of the training at the university are directly related to critical thinking and emotional intelligence, which will be useful in any field of work and in any type of company that the student subsequently works for (Jiménez-Bucarey et al., 2023).

Creativity and critical thinking competencies are important both for work in companies and for strengthening the entrepreneurial culture of students in business careers, and it is important that they are part of a training process in universities and of mechanisms that allow the development of these competencies in students (Quispe et al., 2022).

The literature shows evidence of the results achieved by universities in the development of competencies, such as creativity (Álvarez-Santullano & De Prada, 2018), and teamwork, as well as leadership and entrepreneurship (Martínez, Gonzalez & Rebollo, 2019), although the results indicate that universities manage to develop these competencies at levels lower than what the market demands (Pan & Seow, 2016; Lluch et al., 2017; Álvarez-Santullano & De Prada, 2018).

To develop students' competencies, universities must improve the quality of teaching, reorganize their processes, and improve control (Delgado, 2020). On the one hand, they must know the opinion of employers of the skills they demand (Henrich, 2016) and, on the other hand, develop in students the skills required by the industry (Raelin, 2016; Anderson, 2018), whose expected result is precisely to achieve synergy between what the industry requires and what universities develop in terms of skills and talents (Martínez et al., 2019), implementing processes to evaluate achievements in the development of competencies for work (Burnette, 2016; Pan & Seow, 2016). However, evidence shows in the literature that the competencies developed

by universities are not always the same as those required by students for working life (Montoro-Sánchez, Mora-Valentín & Ortiz-de-Urbina-Criado, 2012).

Among the methods available to universities to develop competency skills are pre-professional internships through the application of knowledge to a real situation in companies (Valencia, Macías & López, 2018). To this end, pre-professional practices are used as an alternative and complementary method to traditional teaching that incorporates a theoretical-practical approach to teaching and learning through which students are expected to apply their knowledge to real situations (Molina et al., 2007).

Active learning methodologies increase student achievement and have a significant impact on the quality of learning, favoring teamwork beyond individual learning (Freeman et al., 2014; Raelin, 2016). In this same context, internships and pre-professional practices increase the employability of graduates and provide a mechanism for cooperation between universities and organizations, including companies (Pereira, Vilas-Boas & Rebelo, 2020).

The literature shows other activities or factors that are important for achieving competency development in universities, such as implementing competency-based learning (Henri, Johnson & Nepal, 2017), so it is important to develop competency development plans at university (Buenviaje et al., 2016).

This is why it is important to evaluate the strengths and weaknesses that students have in these competencies and to have a plan for their development based on the strengths and weaknesses that students present (Hunt et al., 2017), which implies, in principle, selecting an appropriate internship environment and, then, access to real experiences to ensure that the student develops relationship and teamwork skills (Fleming, McLachlan & Pretti, 2018), precisely to put into practice the knowledge acquired and skills developed (Lluch et al., 2017; Megahed, Elshater & Afifi, 2020; Perusso et al., 2021).

Although the literature shows

evidence of the development of students' work competencies in universities (Álvarez-Santullano & De Prada, 2018; Martínez et al., 2019), the literature has little evidence of the factors involved in the development of these competencies in universities, so there is still a gap in the literature on the factors involved in the development of work skills (Pan & Seow, 2016; Virtanen & Tynjälä, 2018).

On the basis of the theoretical synthesis described above, which determines the need to study pre-professional competencies, the foundations that support the relevance of the development of students' talents and skills in their respective training processes, and the referenced conceptual evidence that gives universities the responsibility to focus beyond teaching and incorporate the development of professional competencies, the following research question is declared: What are the factors that intervene in the development of competencies of students in business careers in universities in Ecuador?

## **2. Methodology**

The research design is quantitative, non-experimental and sectional. We worked with students from the Universidad Católica de Santiago de Guayaquil (UCSG) who participate in pre-professional internships located in the province of Guayas, Ecuador, which are carried out in companies in the business areas, and develop activities planned by professors and managers of companies in order to develop skills or competencies that are required to work in companies.

The Universidad Católica de Santiago de Guayaquil has the following model of pre-professional internships: In business careers, the curricular design is oriented to the development of competencies for the work activity (creativity and innovation, interdisciplinary vision, teamwork, use of technologies) which is complemented in the academic units with the design of the learning environment and objectives of the pre-professional internships for Students for

periods that are normally one year, selecting suitable companies so that, through on-site practice, the student develops the skills for the work activity.

In this sense, the University designates a tutor to guide the student, while the company selects a tutor to guide the student on site and at the end of the internship, both the tutor of the company and the tutor of the university, qualify separately, according to the objectives proposed according to the performance of the student and the competencies available to the student (UCSG, 2022).

A questionnaire was developed for the research and adapted from the literature (Robinson, Garton & Vaughn, 2007; Baker & Henson, 2010; Abbas & Imam, 2016; El Mansour & Dean, 2016; Adriaensen, Bijsmans & Groen, 2019) composed of demographic questions on personal and academic data, and questions on the main competencies for work, as well as those related to labor insertion, the unit of measurement that was designed is the student who has completed pre-professional internship.

The variables of the competencies developed by the students were measured on a scale of 0-4 (0 = not developed, 1 = low, 2 = medium, 3 = high, 4 = very high) in relation to the adequate or necessary level for the achievement of the variables. Labor insertion was also measured on a scale of 0-4 (0 = not developed, 1 = low, 2 = medium, 3 = high, 4 = very high), in relation to the importance of pre-professional internships through the development of labor skills, for obtaining the first job after the internship.

The study population consisted of 1,600 students who met this condition of having achieved a first job after the pre-professional internship. The sample consisted of 310 students. The sample was non-probabilistic, non-random and convenience-based, since it was carried out with students who were willing to collaborate with the development

of the study. The total number of contacts was 354 and 318 valid contacts were obtained. The reliability of the data was calculated using Cronbach's alpha and an index of 0.8 was obtained, which means that the instrument achieves high reliability.

The methodology used for the processing of the data was the factor analysis of principal components since it is desired to reduce the variables in a group of factors or constructs, for which a feasibility analysis of the instrument with Cronbach's alpha was carried out in order to determine the consistency of the scale, whereas to be reliable, Cronbach's alpha must be greater than 0.8. Subsequently, the Kaiser-Meyer-Olkin (KMO) test was performed to determine the adequacy of the sampling, considering that it should be greater than 0.6. Additionally, Bartlett's sphericity test was performed, which, in order to be adequate, is expected to be less than 0.05 significant. With the acceptable values of KMO and Bartlett's sphericity, the conditions for developing a factor analysis would be met.

The factor analysis was developed using the extraction method principal component analysis with Varimax rotation and Kaiser normalization, and the criterion for the conformation of factors was that they should explain at least 60% of the total variance, and the contribution of factor load of each variable was estimated to be greater than 0.5.

### **3. Results and discussion**

Below are the various sections that synthesize the results of the present study, beginning with factor analysis and the findings that derive from its analysis. Table 1 shows the reliability analysis of the construct items, obtaining a Cronbach's alpha of 0.922, which allows us to affirm the internal consistency of the scale used.

**Table 1**  
**Instrument Reliability Analysis**

Case Processing Summary				Reliability Statistics	
		N	%	Cronbach's alpha	N of Elements
Cases	Valid	318	89.8	0.922	43
	Barred	36	10.2		
	Total	354	100.0		

to. List deletion is based on all procedural variables.

Source: Own elaboration, 2023.

The exploratory factor analysis obtained a KMO test value of 0.915 (see Table 2), which is higher than 0.60, so it is determined that this factor analysis technique can be used, a Bartlett

sphericity test was also performed that contrasts if the correlation matrix is an identity matrix and a significance = 0.000 is obtained, which shows that this factor analysis technique can be used.

**Table 2**  
**Factor analysis**

KMO & Bartlett Test									
Kaiser-Meyer-Olkin Measure of Sampling Adequacy				0.915					
				Approx. Chi-square		8279.974			
Bartlett's sphericity test				G1		903			
				Say.		0.000			
Total Variance Explained									
Component	Initial eigenvalues			Load Extraction Sums Squared			Load Rotation Sums Squared		
	Total	% Variance	Cumulative %	Total	% Variance	Cumulative %	Total	% Variance	Cumulative %
1	12,681	29,490	29,490	12,681	29,490	29,490	7,699	17,904	17,904
2	4,758	11,066	40,556	4,758	11,066	40,556	5,114	11,894	29,797
3	2,193	5,101	45,657	2,193	5,101	45,657	4,396	10,222	40,020
4	1,837	4,272	49,929	1,837	4,272	49,929	2,991	6,956	46,976
5	1,575	3,662	53,591	1,575	3,662	53,591	2,029	4,720	51,695

Extraction method: principal component analysis.

Source: Own elaboration, 2023.

In general, five factors were extracted using the criterion that the factors can explain 60% of the total variance, consequently, as shown in Table 2, the factors are correctly determined since the explained variances of each of the five factors are disaggregated in a manner consistent with the progressive sedimentation of the factors of a construct.

Table 3 shows the set of items that make

up each of the five factors determined by the principal component factor analysis, which methodologically has the ability to allow the items to be grouped by similarity, according to their factor loads with their respective factors. by discrimination, determined by the differential components that shape each of the respective factors and that explain a different proportion of the total variance.

**Table 3**  
**Determined Factors**

Variables	Determined Factors	Factorial Load
<b>F1: Competency-based learning</b>		
V33	Continuous self-learning	0.833
V36	Systematic planning and monitoring	0.826
V34	Persistence	0.813
V31	Taking Risks	0.808
V35	Research	0.802
V32	Negotiation	0.801
V30	Leadership	0.779
V29	Mental agility	0.753
V28	Emotional Intelligence	0.661
V20	Adaptation to change	0.545
<b>F2: Professional Development Planning</b>		
V4	Practice Job Interviews	0.871
V6	Networking training	0.869
V5	Follow-up of work proposals	0.843
V7	Practice of psychotechnical tests	0.821
V3	Resume Preparation	0.802
V2	Entrepreneurship Program	0.701
V1	Professional Development Plan	0.608
<b>F3: Relationships and Teamwork</b>		
V26	Professional Ethics	0.708
V23	Development of interpersonal relationships.	0.706
V24	Self-improvement	0.696
V27	Social Responsibility	0.666
V19	Oral and written expression	0.657
V22	Proficiency in English	0.653
V25	Incorporation into teamwork	0.580
<b>F4: Professional Development Events</b>		
V9	Events (seminars, workshops, congresses)	0.806
V8	Trade Shows	0.771
V10	Social Media	0.722
<b>F5: Work Practice in Companies</b>		
V15	Does the subject of professional or work practices taught in the FEE courses facilitate their insertion into the labour market?	0.751
V18	Creativity, innovation and independence in their professional work	0.669
V17	Interdisciplinary vision	0.584

**Note:** Main component removal method, with rotation: Varimax and with Kaiser normalization. The rotation has converged in 10 iterations.

**Source:** Own elaboration, 2023.

Based on the above, the first factor F1 called “Competency Learning” refers to the student’s ability to learn based on the competencies he or she is developing, that is, making the student capable of bringing knowledge to reality. The second factor obtained F2, “Professional development planning”, integrates a set of actions to follow to achieve professional development.

Consistent with what has been described, the third factor obtained F3 refers to “Relationships and teamwork”, with respect to the ability to interact and work with other people; Next, the fourth factor F4 contains items related to “Professional development events” such as the ability to participate in fairs, seminars, workshops, among other activities of a similar nature.

Finally, the fifth factor, determined F5, registers as relevant the “Work Practice in companies”, in relation to the ability to build learning experiences and development of competencies, based on the systematic application of the knowledge acquired, which is progressively put to the test throughout their respective professional practices.

Additionally, as detailed in Table 4, the results allowed us to identify a set of 4 factors from F6 to F9, which were eliminated because they did not meet the minimum number of components necessary to be ratified (Factors: F6, V40, V41; F7, V21, V11; F8, V14, V13 and F9, V38, V42), in addition to a set of items that did not achieve the minimum factor loads necessary to be included in the determined factors (items: V43, V16, V12, V37 and V39).

**Table 4**  
**Factors and items eliminated**

Factors and items eliminated					
Code	Variable	6	7	8	9
V43	How does a UCSG FEE graduate relate to graduates from other universities in the country?				
V16	Do you know what a professional competition is?				
V12	What value would you give to a job bank in favor of your job placement?				
V40	It’s a personal competition.	0.840			
V41	It’s a lifelong continuous development.	0.837			
V21	Use of technology.		0.768		
V11	Does the UCSG FEE have a job bank that supports you in your job placement?		0.552		
V14	What assessment do you give to the graduates’ association in favour of their employability?			0.677	
V13	Does the UCSG FEE have a graduate association that supports you in your job placement?			0.565	
V37	Do any of your teachers use competency development in their classroom?				
V39	It’s a goal of the university.				
V38	What is your sense of belonging (identification) with the UCSG FEE?				-0.761
V42	If you had to choose an employee, would you give equal priority to a UCSG graduate?				0.589

**Note:** Items that did not conform to factors with at least 3 components were eliminated from the analysis.

**Source:** Own elaboration, 2023.

The results obtained made it possible to determine five factors in the development of work skills. Thus, for example, with respect to the first factor of Competency-based learning, it can be seen that it highlights the ability to learn centered on the student and based on the results or competencies to be developed, that is, that the student is able to bring knowledge to reality, using the student's learning and previous experiences (Henri et al., 2017).

The second factor, professional development planning, is related to students' competencies for work, i.e., the ability to plan for university activities and projects that allow them to develop these skills (Buenviaje et al., 2016), professional development plans should be based on reflective self-assessment of students' strengths and weaknesses and competencies, the effectiveness of these plans and monitoring contributes to improving the development of students' job skills (Hunt et al., 2017).

The third factor of relationships and teamwork, makes explicit the relationships at work and that allow to obtain skills based on teamwork and based on the knowledge of the relationships that are achieved, this is important because it takes advantage of the experience and knowledge of other people to develop one's own work strengths (Fleming et al., 2018). Teamwork is a skill required by companies and corporations due to the various functions they must perform (Bajada & Trayler, 2013). Teamwork competence is key to employability (Varela & Mead, 2018).

The fourth factor of professional development events is participation in fairs, courses, seminars, workshops, which strengthen knowledge, experiences, and contribute to the development of work skills (Berchin et al., 2018), they are extracurricular activities that continue the student's personal development and contribute to the continuous learning of the person (Ooi, 2021).

Finally, the fifth factor is that it is possible to apply knowledge and build one's own experiences in the company, which improves the competencies and skills of the student, based on the experiences that are

acquired in the company, which is important because the student must develop more skills for the job and this is achieved in the company, which sometimes cannot be achieved with knowledge received at university (Megahed et al., 2020), active learning requires an environment where knowledge can be put into practice that fosters theoretical-practical learning, attitudes, and the development of skills for work (Perusso et al., 2021).

This research has theoretical implications since it contributes to reducing the gap in the literature regarding the factors involved in the development of labor competencies of university business students, due to the fact that the evidence is scarce (Virtanen & Tynjälä, 2018) and has practical implications for universities and companies that can focus on these factors to improve the development of labor competencies in the workplace students of business careers.

## **Conclusions**

The results obtained show that in the development of professional competencies through the method of pre-professional practices, five factors intervene in the development of these competencies, which are called competency learning, professional development planning, relationships and teamwork, professional development events and work practice.

From the theoretical perspective, this paper contributes to reducing the gap in the literature that exists on the factors or constructs that are part of the development of labor competencies of university students in business careers, to the extent that it is evident that it is possible to identify, on the one hand, the intervening dimensions and, on the other, the contents of these represented by the items that shape the respective items.

From a rather practical perspective, the approach of the study allowed us to determine some implications of impact on universities, as it guides them to focus on these factors to improve the development of labor

competencies in students of business careers, which improves the ability of these students to work in general in organizations that require them and in particular, in companies where they can be employed.

In terms of the effects on social elements, universities assume the role of contributing to the development of students' job skills, and increasing the skills that contribute to improving the workforce and the competitiveness of companies, which contributes to the social development of the population.

This research has some limitations that need to be recognized. First, due to the temporality of the data since it was taken between March and September 2021 and represents a certain moment of reality, and, second, the findings were determined in a specific context and, therefore, could mean that these results cannot be transferred or projected to a different university context.

Finally, it is necessary to mention that both the topic and the method developed here suggest the possibility of carrying out future research on the factors that intervene in the development of job skills of university students, perhaps in other university institutions, in other professional disciplines and in other countries of the South American region, which would allow the validation of an instrument and that it is statistically proven and can be applied in other contexts, ratifying the findings of this research.

## Bibliographic references

- Abas, M. C., & Imam, O. A. (2016). Graduates' competence on employability skills and job performance. *International Journal of Evaluation and Research in Education (IJERE)*, 5(2), 119-125. <http://doi.org/10.11591/ijere.v5i2.4530>
- Adriaansen, J., Bijmans, P., & Groen, A. (2019). Monitoring generic skills development in a bachelor European studies. *Journal of Contemporary European Research*, 15(1), 110-127. <https://doi.org/10.30950/jcer.v15i1.1018>
- Agudo, J. E., Hernández-Linares, R., Rico, M., & Sánchez, H. (2013). Competencias Transversales: Percepción de su desarrollo en el grado en Ingeniería en Diseño Industrial y Desarrollo de Productos. *Formación Universitaria*, 6(5), 39-50. <http://dx.doi.org/10.4067/S0718-50062013000500006>
- Allen, D., & Simpson, C. (2019). Inquiry into graduate attributes: Reviewing the formal and informal management curricula. *Journal of Management Education*, 43(3), 330-358. <https://doi.org/10.1177/1052562919839736>
- Álvarez-Santullano, M. M., & De Prada, E. (2018). Evaluación de las competencias profesionales a través de las prácticas externas: Incidencia de la creatividad. *Revista de Investigación Educativa*, 36(1), 203-219. <https://doi.org/10.6018/rie.36.1.275651>
- Anderson, L. (2018). Competency-based education: Recent policy trends. *The Journal of Competency-Based Education*, 3(1), e01057. <https://doi.org/10.1002/cbe2.1057>
- Bada, S. O. (2015). Constructivism learning theory: A paradigm for teaching and learning. *IOSR Journal of Research & Method in Education*, 5(6), 66-70. <https://iosrjournals.org/iosr-jrme/papers/Vol-5%20Issue-6/Version-1/105616670.pdf>
- Bajada, C., & Trayler, R. (2013). Interdisciplinary business education: Curriculum through collaboration. *Education + Training*, 55(4/5), 385-402. <https://doi.org/10.1108/00400911311326027>
- Baker, G., & Henson, D. (2010). Promoting employability skills

- development in a research-intensive university. *Education+ Training*, 52(1), 62-75. <https://doi.org/10.1108/00400911011017681>
- Bratianu, C., Hadad, S., & Bejinaru, R. (2020). Paradigm shift in business education: A competence-based approach. *Sustainability*, 12(4), 1348. <https://doi.org/10.3390/su12041348>
- Berchin, I. I., Sima, M., Andrade, M., Biesel, S., Piazza, L., Ferreira, R. V., Salgueirinho, J. B., & Ceci, F. (2018). The importance of international conferences on sustainable development as higher education institutions' strategies to promote sustainability: A case study in Brazil. *Journal of Cleaner Production*, 171, 756-772. <https://doi.org/10.1016/j.jclepro.2017.10.042>
- Biggs, J. (2014). Constructive alignment in university teaching. *HERDSA Review of Higher Education*, 1, 5-22. [https://www.tru.ca/\\_shared/assets/Constructive\\_Alignment36087.pdf](https://www.tru.ca/_shared/assets/Constructive_Alignment36087.pdf)
- Bozu, Z., & Aránega, S. (2017). La formación inicial de maestros y maestras a debate: ¿Qué nos dicen sus protagonistas? *Profesorado: Revista de Currículum y Formación del Profesorado*, 21(1), 143-163. <https://recyt.fecyt.es/index.php/profesorado/article/view/58056>
- Buenviaje, M. G., Encio, H. A., Refozar, R. F., Anuran, A., Camello, N. C., & Laguador, J. M. (2016). Employability and skills of MBA graduates from literature review as input to student development program. *Journal of Research in Business and Management*, 4(5), 16-21. <https://research.lpubatangas.edu.ph/wp-content/uploads/2016/08/Employability-and-Skills-of-MBA.pdf>
- Burnette, D. M. (2016). The renewal of competency-based education: A review of the literature. *The Journal of Continuing Higher Education*, 64(2), 84-93. <https://doi.org/10.1080/07377363.2016.1177704>
- Cazares, L., & Cuevas, J. F. (2007). *Planeación y evaluación basadas en competencias: Fundamentos y prácticas para el desarrollo de competencias docentes, desde pre-escolar hasta el post-grado*. Editorial Trillas
- Cobb, E. J., Meixelsperger, J., & Seitz, K. K. (2015). Beyond the classroom: Fostering soft skills in pre-professional LIS organizations. *Journal of Library Administration*, 55(2), 114-120. <https://doi.org/10.1080/01930826.2014.995550>
- Delgado, W. (2020). *La competencia digital del profesorado y empoderamiento digital a estudiantes: Estudio de caso de asignaturas semipresenciales* [Tesis doctoral, Universitat Oberta de Catalunya dissertation]. <https://openaccess.uoc.edu/handle/10609/124466?locale=es>
- El Mansour, B., & Dean, J. C. (2016). Employability skills as perceived by employers and university faculty in the fields of human resource development (HRD) for entry level graduate jobs. *Journal of Human Resource and Sustainability Studies*, 4, 39-49. <http://dx.doi.org/10.4236/jhrss.2016.41005>
- Fleming, J., McLachlan, K., & Pretti, T. J. (2018). Successful work-integrated learning relationships: A framework for sustainability. *International Journal of Work-Integrated Learning*, 19(4), 321-335. [https://www.ijwil.org/files/IJWIL\\_19\\_4\\_321\\_335.pdf](https://www.ijwil.org/files/IJWIL_19_4_321_335.pdf)
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering,

- and mathematics. *PNAS Proceedings of the National Academy of Sciences of the United States of America*, 111(23), 8410-8415. <https://doi.org/10.1073/pnas.1319030111>
- Ghosh, K. (2014). Creativity in business schools: Towards a need based developmental approach. *Global Journal of Flexible Systems Management*, 15(2), 169-178. <https://doi.org/10.1007/s40171-013-0049-2>
- Grande, R. A. N., Berdida, D. J. E., Villagrancia, H. N., Ablao, J. N., & Garcia, P. R. B. (2021). Assessment of nursing students' research competencies with competency-based education. *The Journal of Competency-Based Education*, 6(4), 211-221. <https://doi.org/10.1002/cbe2.1260>
- Henri, M., Johnson, M. D., & Nepal, B. (2017). A review of competency-based learning: Tools, assessments, and recommendations. *Journal of Engineering Education*, 106(4), 607-638. <https://doi.org/10.1002/jee.20180>
- Henrich, J. (2016). Competency-based education: The employers' perspective of higher education. *The Journal of Competency-Based Education*, 1(3), 122-129. <https://doi.org/10.1002/cbe2.1023>
- Hunt, J. M., Langowitz, N., Rollag, K., & Hebert-Maccaro, K. (2017). Helping students make progress in their careers: An attribute analysis of effective vs ineffective student development plans. *The International Journal of Management Education*, 15(3), 397-408. <https://doi.org/10.1016/j.ijme.2017.03.017>
- Jiménez-Bucarey, C., Müller-Pérez, S., Gil, M., & Araya-Castillo, L. (2023). Brechas en percepción de contribución de competencias genéricas entre estudiantes en Chile. *Revista de Ciencias Sociales (Ve)*, XXIX(1), 386-403. <https://doi.org/10.31876/rcs.v29i1.39758>
- Johnstone, S. M., & Soares, L. (2014). Principles for developing competency-based education programs. *Change: The Magazine of Higher Learning*, 46(2), 12-19. <https://doi.org/10.1080/00091383.2014.896705>
- Lluch, L., Fernández-Ferrer, M., Pons, L., & Cano, E. (2017). Competencias profesionales de los egresados universitarios: Estudio de casos en cuatro titulaciones. *Currículum - Revista de Teoría, Investigación y Práctica Educativa*, (30), 49-64. <https://www.ull.es/revistas/index.php/currículum/article/view/36>
- Martínez, P., Gonzalez, C., & Rebollo, N. (2019). Competencias para la empleabilidad: Un modelo de ecuaciones estructurales en la Facultad de Educación. *Revista de Investigación Educativa*, 37(1), 57-73. <http://dx.doi.org/10.6018/rie.37.1.343891>
- Molina, E., Bolívar, A., Burgos, A., & Ponce, C. (2007). Mejorar el practicum de Pedagogía. Aportaciones desde la investigación. *Revista de Investigación Educativa*, 25(2), 443-461. <https://revistas.um.es/rie/article/view/96951>
- Montoro-Sánchez, M. Á., Mora-Valentín, E. M., & Ortiz-de-Urbina-Criado, M. (2012). Análisis de las competencias adquiridas en los estudios de Dirección de Empresas y su grado de aplicación en las prácticas en empresas. *Revista Complutense de Educación*, 23(1), 241-263. [https://doi.org/10.5209/rev\\_RCED.2012.v23.n1.39112](https://doi.org/10.5209/rev_RCED.2012.v23.n1.39112)
- Megahed, G., Elshater, A., & Afifi, S. M. (2020). Competencies urban planning students need to succeed in professional practices: Lessons learned from Egypt. *Archnet-IJAR: International Journal of Architectural Research*, 14(2), 267-287. <https://doi.org/10.31876/rcs.v29i1.39758>

- [org/10.1108/ARCH-02-2019-0027](https://doi.org/10.1108/ARCH-02-2019-0027)
- Ooi, P. C. (2021). Students' continuing personal development (S-CPD) - a scheme to promote student engagement in extra-curricular activities. *Higher Education, Skills and Work-Based Learning*, 11(3), 672-682. <https://doi.org/10.1108/HESWBL-06-2019-0079>
- Pan, G., & Seow, P.-S. (2016). Preparing accounting graduates for digital revolution: A critical review of information technology competencies and skills development. *Journal of Education for business*, 91(3), 166-175. <https://doi.org/10.1080/08832323.2016.1145622>
- Pereira, E. T., Vilas-Boas, M., & Rebelo, C. F. C. (2020). University curricula and employability: The stakeholders' views for a future agenda. *Industry and Higher Education*, 34(5), 321-329. <https://doi.org/10.1177/0950422220901676>
- Perusso, A., Van der Sijde, P., Leal, R., & Blankesteijn, M. (2021). The effectiveness and impact of action learning on business graduates' professional practice. *Journal of Management Education*, 45(2), 177-205. <https://doi.org/10.1177/1052562920940374>
- Peterson, L. T., & Lundquist, M. (2021). Competency as outcome and process through transformative learning experiences. *Journal of Teaching in Social Work*, 41(4), 373-388. <https://doi.org/10.1080/08841233.2021.1946234>
- Piaget, J. (1980). The psychogenesis of knowledge and its epistemological significance. In M. Piatelli-Palmarini (Ed.), *Language and learning: The debate between Jean Piaget and Noam Chomsky* (pp. 23-34). Harvard University Press.
- Quispe, G. M., Delgado, R., Ayaviri, V., & Maldonado, A. I. (2022). Competencias emprendedoras para generar una cultura de emprendimiento en la educación superior. *Revista de Ciencias Sociales, (Ve), XXVIII(E-6)*, 297-313. <https://doi.org/10.31876/rcs.v28i.38847>
- Raelin, J. A. (2016). Work-based (not classroom) learning as the apt preparation for the practice of management. *Management Teaching Review*, 1(1), 43-51. <https://doi.org/10.1177/2379298115617736>
- Ramírez, B. V., Camayo, B. F., Vilcatoma, A. G., & Valdez, J. J. (2022). Competencias digitales y rendimiento académico en estudiantes de una institución de educación técnica-productiva peruana. *Revista de Ciencias Sociales (Ve), XXVIII(E-6)*, 199-211. <https://doi.org/10.31876/rcs.v28i.38832>
- Robinson, J. S., Garton, B. L., & Vaughn, P. R. (2007). Becoming employable: A look at graduates' and supervisors' perceptions of the skills needed for employability. *NACTA Journal*, 51(2), 19-26.
- Spante, M., Hashemi, S. S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education*, 5(1), 1519143. <https://doi.org/10.1080/2331186X.2018.1519143>
- Tarmo, A., & Kimaro, A. (2021). The teacher education curriculum and its competency-based education attributes. *The Journal of Competency-Based Education*, 6(3), e01255. <https://doi.org/10.1002/cbe2.1255>
- Universidad Católica de Santiago de Guayaquil - UCSG (2022). *Políticas de gestión de la vinculación en la Universidad Católica de Santiago de Guayaquil*. UCSG. <https://www.ucsg.edu.ec/>

- [wp-content/uploads/pdf/vinculacion/normativas/politicas.pdf](#)
- Valencia, E. M., Macías, J., & López, S. M. (2018). Las prácticas pre-profesionales en el contexto de la carrera de Licenciatura en Educación Inicial de la Universidad Estatal de Milagro. *Revista Conrado*, 14(63), 140-146. <https://conrado.ucf.edu/cu/index.php/conrado/article/view/730>
- Van den Beemt, A., MacLeod, M., Van der Veen, J., Van de Ven, A., Van Baalen, S., Klaassen, R., & Boon, M. (2020). Interdisciplinary engineering education: A review of vision, teaching, and support. *Journal of engineering education*, 109(3), 508-555. <https://doi.org/10.1002/jee.20347>
- Varela, O., & Mead, E. (2018). Teamwork skill assessment: Development of a measure for academia. *Journal of Education for Business*, 93(4), 172-182. <https://doi.org/10.1080/08832323.2018.1433124>
- Virtanen, A., & Tynjälä, P. (2018). Factors explaining the learning of generic skills: a study of university students' experiences. *Teaching in Higher Education*, 24(7), 880-894. <https://doi.org/10.1080/13562517.2018.1515195>
- Von Glasersfeld, E. (1995). A constructivist approach to teaching. In L. P. Steffe & J. Gale (Eds.), *Constructivism in education* (pp. 3-15). Lawrence Erlbaum Associates. <https://doi.org/10.4324/9780203052600>
- Zhao, Y., Pinto, A. M., & Sánchez, M. C. (2021). Digital competence in higher education research: A systematic literature review. *Computers & Education*, 168, 104212. <https://doi.org/10.1016/j.compedu.2021.104212>