

Performance level of the General Exam for the Graduate of the Bachelor of Architecture (EGEL-ARQUI) of the Tecnológico de Estudios Superiores de Valle de Bravo (TESVB) in the pandemic

Nivel de desempeño del Examen General para el Egreso de la Licenciatura en Arquitectura (EGEL-ARQUI) del Tecnológico de Estudios Superiores de Valle de Bravo (TESVB) en la pandemia

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DOI: 10.35429/JAD.2021.13.5.29.37

Received March 23, 2021; Accepted June 17, 2021

Abstract

One way in which universities measure the level of competencies achieved or identify the level of academic knowledge and skills of graduates is through the General Examination for Undergraduate Exit (EGEL). Know the level of performance of the General Examination for the Graduate Degree in Architecture (EGEL-ARQUI) of the students before and during the pandemic. The generation that obtained the highest average score in the different areas is that of 2019 with 946 points and two students achieved satisfactory performance, followed by that of 2020 with 928 points with one student in satisfactory performance and the lowest in score. It is the generation of the year 2018 with 898 points, satisfactory performances were not achieved. The area with the lowest score on average was presented in the Architectural Project with 800 points on average of the three generations, being the year 2020 (COVID-19 pandemic), the lowest average with 760 points.

CENEVAL (EGEL), Architecture Graduate, Evaluation

Resumen

Una forma en que las universidades miden el nivel de competencias logradas o identifican el nivel de conocimientos y habilidades académicas de los egresados es mediante el Examen General para el Egreso de Licenciatura (EGEL). Conocer el nivel de desempeño del Examen General para el Egreso de la Licenciatura en Arquitectura (EGEL-ARQUI) de los estudiantes antes y durante la pandemia. La generación que obtuvo el mayor puntaje en promedio en las diferentes áreas es la del año 2019 con 946 puntos y dos estudiantes lograron un desempeño satisfactorio, seguido por la del año 2020 con 928 puntos con un estudiante en desempeño satisfactorio y la más baja en puntuación es la generación del año 2018 con 898 puntos, no se alcanzaron desempeños satisfactorios. El área con menor puntaje en promedio se presentó en el Proyecto Arquitectónico con 800 puntos en promedio de las tres generaciones, siendo el año 2020 (pandemia COVID-19), el promedio más bajo con 760 puntos.

CENEVAL (EGEL), Egreso Arquitectura, Evaluación

Citation: CASTELÁN-URQUIZA, Demetrio. Performance level of the General Exam for the Graduate of the Bachelor of Architecture (EGEL-ARQUI) of the Tecnológico de Estudios Superiores de Valle de Bravo (TESVB) in the pandemic. *Journal of Architecture and Design*. 2021, 5-13: 29-37

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Introduction

In the current global context in which as a result of the health emergency caused by Covid-19, the activities of our daily lives have undergone an unprecedented radical change, global education has new challenges to face, not only from educational policies, adaptations of the educational infrastructure and study plans but also in the proposal of new forms of learning and interrelation between the teacher and the student, since these changes have led as never before that the student, especially the university student, should be the protagonist of his own learning.

It is in these times when computer technology has become more strongly present in education with virtual classes, conferences and online socialization and remote research, it is urgent that the university student be trained to be autonomous in their learning. This can only be achieved when the student knows how their own learning processes work and, based on this, can plan, self-regulate and evaluate it effectively; In other words, the student uses metacognition to achieve the necessary competencies that the career he studies requires (Alegría, 2021).

Mamani (2021), affirms that Educating is communicating, producing changes in the parts. It is known that the triad: teacher-apprentice-environment, tends to condition the human being, not as a repository of information, but as a thinking, intelligent and sensitive being, in whom the educational process should promote knowledge and self-confidence, the development of skills in the management of their own resources, the exploration and improvement of the internal and external individual mechanisms of learning and the cultivation of different modes of expression and communication, with a view to a creative and nurturing interaction with society favoring the development of skills so that each individual assumes responsibility for their own learning, learning to use and direct their brain, and therefore their own life.

Cruz (2021), comments that in families, great weight is given to elements such as the prevailing gender mandates and social position, which are fundamental in the generation of future school expectations and strategies for women and men.

Then, in an educational panorama of great heterogeneities and inequalities, the school appears as a setting in which these expectations and strategies are configured. There, gender orders recreate an unequal sexual division and with important implications for expectations and academic performance in some subjects. In such journeys, preparation for an exam appears to be more a strategic balance between acquired and inherited capital, and gender mandates, than a career based on individual merit and disconnected from social position.

López (2021) in his research, comments on the limitations and problems that adults can face, theories about his learning, including approaches such as cognitive, humanistic and communicative. In addition to laws: of action that teaches the individual to learn not only through theory but by putting into practice what has been learned in the real world; of the exercise which he mentions that every practice executed satisfactorily creates a habit that with time will be used automatically and correctly; Finally, the law of the beginning, in this the first impression that the student has about the class will result in interest in the study, in addition to generating a pleasant atmosphere.

Accelerated changes, technological progress and the various ways of transmitting knowledge have led university authorities and teachers to arouse a particular interest in knowing the academic performance of university students, because it is an indispensable indicator of approach to reality and educational quality; Therefore, pertinent strategies are needed to promote optimal performance. However, choosing these strategies is not an easy task because, in recent years, those that promote rote, depersonalized and unmotivated learning have been criticized (Castillo, 2021).

The National Evaluation Center for Higher Education, A.C. (Ceneval) is a Civil Association that offers, since 1994, evaluation services to hundreds of schools, universities, companies, educational authorities, professional organizations and other private and governmental bodies.

Its main activity is the design and application of evaluation instruments. Its mission is to provide reliable information on the learning achieved by students of different educational levels. In the field of education, as in all human activities, evaluation is the process that allows evaluating the successes, recognizing the failures and detecting potentialities. Having valid and reliable information guarantees making the right decisions. This guide is aimed at those who will hold the General Exam for the Graduate Degree in Architecture (EGEL-ARQUI). Its purpose is to offer information that allows the subjects to become familiar with the main characteristics of the exam, the contents that are evaluated, the type of questions (reagents) that they will find in the exam, as well as with some study and preparation suggestions to present the exam.

The General Examination for Bachelor's Degree Exit (EGEL) is an assessment instrument of national coverage whose purpose is to determine whether graduates who complete a bachelor's degree study plan have the knowledge and skills that are considered essential at the end of the degree. their academic training (CENEVAL, 2021).

Who is it for? To graduates of higher education programs that have covered 100% of the credits and, where appropriate, to students who are studying the last semester of the degree, as long as the training institution so requests. Ceneval offers a specific EGEL for 39 undergraduate and engineering programs, and one more for technical professionals. The applicant is recommended to carefully review the complete guide and use it permanently during its preparation and to clarify any doubts about academic, administrative or logistical aspects in the presentation of the EGEL-ARQUI.

Currently there are different types of qualifications that are carried out in private and public higher education institutions, previously before the Coronavirus pandemic, EGEL exams were carried out in person, as a degree option; But due to the situation of the pandemic that has led us to confinement for a year, options that are not a risk to the health of teachers and students were chosen, with online exams as a means of solving the exit of students and not postponing their work or study opportunities.

Theoretical Framework

The National Center for Evaluation of Higher Education (Ceneval) is a non-profit civil association whose main activity is the design and application of instruments for evaluating knowledge, skills and competencies, as well as the analysis and dissemination of the results. that throw the tests.

Since 1994, it has provided reliable and valid information on the knowledge and skills that people acquire as beneficiaries of educational programs at different levels of formal and informal education.

Its highest authority is the General Assembly, made up of educational institutions, professional associations and associations, social and productive organizations, as well as government educational authorities. It has a Board of Directors that guarantees the proper day-to-day running of the Center. Its general director is the executive authority of the mandate issued by the General Assembly.

Its facilities are located in Mexico City and its activities are based on the latest advances and research in psychometrics and other disciplines, on the experience and commitment of its team, made up of almost 600 people.

The measurement instruments developed by the Center are the result of standardized design and construction processes, adhering to international standards; Numerous collegiate bodies participate in its preparation, made up of specialists from the country's most representative educational institutions and nationally recognized professional organizations.

The General Exam for the Graduate in Architecture (EGEL-ARQUI) is a test of national coverage that assesses the level of knowledge and academic skills necessary to start the professional practice of recent graduates of the degree.

Advantages**For the supporter:**

- Know the result of their training with respect to a national standard, through the application of a reliable and valid exam, tested throughout the country.
- Know the result of the evaluation in each area of the exam and identify those in which it has a good performance, as well as in which it presents weaknesses.
- Have an additional reference to join the labor field.

For higher education institutions:

- Incorporate the General Exam for Graduate Graduates as a means of evaluating and comparing the performance of its graduates with a national parameter, in addition to using it as a degree option.
- Have valid and reliable judgment elements that support the curricular planning and evaluation processes to undertake actions to improve the academic training of its graduates, and for the adaptation of study plans and programs.
- Provide information about the results of the supporters to the main educational agents (authorities, accrediting bodies and society in general) on the knowledge considered necessary to integrate into the labor field.

For employers and society:

Better know the profile of the candidates to be hired who are starting their working lives, through reliable elements of judgment and objectives related to professional quality.

Purpose and scope of EGEL-ARQUI

The purpose of the EGEL-ARQUI is to identify if the graduates of the Bachelor of Architecture have the knowledge and skills necessary to start effectively in the exercise of the profession.

It is aimed at graduates of the Bachelor of Architecture who have covered 100% of the credits, whether or not they are graduates and, where appropriate, to students who are in the last semester of the degree, as long as the training institution so requests. .

The EGEL-ARQUI was written in Spanish, so it is aimed at individuals who can perform this assessment under said linguistic condition. Supporters with special physical needs will be cared for according to their special requirement.

Construction of the EGEL-ARQUI; In order to ensure the relevance and validity of the evaluation instruments, Ceneval relies on Technical Councils made up of experts in the areas that make up the profession, which may represent different educational institutions, colleges or professional associations, employers of the public, private and independent sector. These Technical Councils operate in accordance with regulations and are periodically renewed.

The content of EGEL-ARQUI is the result of a complex methodological, technical and consensus-building process in the Technical Council and in its Academic Support Committees around:

- The definition of the main functions or areas of action of the professional.
- The identification of the various activities that are related to each area.
- The selection of the essential tasks for the development of each activity.
- The knowledge and skills required to carry out these professional tasks.
- The inclusion of these knowledge and skills in the current study plans and programs of the Bachelor of Architecture.

All this has as a fundamental reference the opinion of hundreds of professionals active in the field of Architecture, trained with diverse study plans and in different institutions, who (in a national survey) contributed their point of view regarding:

1. The professional tasks that are performed most frequently.
2. The level of importance that these tasks have in the exercise of their profession.
3. The study or not, during the degree, of the knowledge and skills that are necessary to carry out these tasks.

EGEL-ARQUI Characteristics

It is an assessment instrument that can be described as an exam with the following attributes:

Specialized for the professional career of Architecture, assesses specific knowledge and skills of the professional training of the graduate in Architecture that are critical to start in the practice of the profession. It does not include generic or transversal professional knowledge and skills.

National in scope, it considers the essential aspects of the degree in Architecture to start practicing the profession in the country. It is not related to a particular curriculum. They are designed and prepared to be valid throughout the country.

Standardized has fixed rules for design, preparation, application and qualification.

Critical, the results of each subject are compared against a national performance standard pre-established by the Technical Council of the exam. The results are expressed on the Ceneval index scale, a scale whose rating range goes from 700 to 1,300 points.

An ideal or desirable standard is set; In other words, a minimum percentage of correct answers required in each area of the exam is defined, which is set at 1000 points on the Ceneval scale, and the higher results correspond to a satisfactory level of mastery. A score of 1150 or higher reflects outstanding proficiency.

Objective, it has univocal and precise qualification criteria, which allows its automation.

Of maximum effort, it allows to establish the level of performance of the supporter, on the basis that he makes his best effort when answering the test reagents.

Of high impact, based on their results, the supporters can graduate and the HEIs obtain an indicator of academic performance.

Multiple choice, each question is accompanied by four answer options, among which only one is correct.

Content focused on problems, allows to determine if the supporters are able to use what they learned during their Bachelor's degree in solving problems and situations that a graduate typically faces at the beginning of their professional practice.

Sensitive to instruction, it evaluates learning outcomes of professional training programs for the Bachelor of Architecture, which are a consequence of the institutionally organized educational experience.

Social validation, socially validated content, content validated by expert committees and hundreds of practicing professionals in the country.

EGEL-ARQUI structure (areas and subareas)

The exam includes four areas, three that are assessed with multiple-choice items and one through the development of an architectural blueprint in situ. This is due to the need to evaluate other types of complex skills typical of the profession that are not susceptible to being measured with multiple-choice items. Exam areas that are assessed with multiple-choice items This part of the exam is made up of areas, subareas, and topics. The areas correspond to professional fields in which the work of the graduate in Architecture is currently organized.

The subareas comprise the main professional activities of each of the aforementioned professional fields. The aspects to be evaluated include the knowledge and skills necessary to carry out specific tasks related to each professional activity.

The exam includes three areas that will be evaluated with multiple choice items and one area whose evaluation will be made from the development of an architectural project in situ.

The foregoing, due to the need to evaluate other types of complex skills typical of the profession that are not susceptible to be measured with multiple-choice reagents. The areas correspond to professional fields in which the work of the graduate in Architecture is currently organized (CENEVAL, Guide for the sustainable EGEL-ARQUI, 2020).

The reagents that make up the exam have been technically validated by specialists who are members of the Academic Committee.

Specialists of the degree in Architecture who meet the following profile:

- Have at least two years of teaching experience in the bachelor's degree and in the labor field.
- With experience in curriculum design or updating of the discipline.
- Know the supporting population in detail
- With an overview of the competencies that a bachelor's degree graduate must have.
- Preferably, that you have information on the monitoring of graduates of your institution in the labor field.
- If possible with experience in evaluation processes.
- Teachers with a maximum of two years of retirement.

Area / Subarea	Number of questions	% in the exam	Distribution of questions per session	
			1a	2a
A. Construction of spaces livable sustainable	54	37.76 %	54	
1. Development of the construction system	17	11.89	17	
2. Development of facilities	18	12.59	18	
3. Development of the structure	9	6.29	9	
4. Development of the executive project	10	6.99	10	
B. Construction administration and management	26	18.18%	15	11
1. Steps to materialize the project	15	10.49	15	
2. Administration of architecture services	11	7.69		11
C. Living spaces project with a sustainable approach	63	44.06%		63
1. Elaboration of the theoretical-conceptual framework of the user's habitat problem	31	21.68		31
2. Identify the characteristics and needs of the user	5	3.50		5
3. Analysis of the context of the problem to be solved	18	12.59		18
4. Formulation of the architectural program	9	6.29		9
Total	143*	100%	69	74

* Additionally, 28% pilot reagents are included.
Structure approved by the EGEL-ARQUI Technical Council on June 11, 2015.

Figure 1 Distribution of the EGEL-ARQUI exam by Areas and Subarea
Source: EGEL-ARQUI Sustainer Guide, (2020)

Area / Subarea	Aspects to evaluate	% in the exam	Distribution of the aspects to be evaluated per session	
			Single session	
A. Architectural Project Area	12	100		
1. Development of the preliminary schemes of the sustainability and universal accessibility project	5	41.6		5
2. Preparation of the preliminary project with sustainability and universal accessibility	4	33.4		4
3. Communication of the architectural proposal	3	25.0		3
Total	12	100		12

Structure approved by the EGEL-ARQUI Technical Council on June 11, 2015.

Figure 2 Distribution of the EGEL-ARQUI exam Area of the Architectural Project
Source: EGEL-ARQUI Sustainer Guide, (2020)

Osuna et al. (2020), investigated the factors related to the student with respect to the evaluation of the exit exam in the Bachelor of Architecture, the results of the evaluations were interpreted during the course of their bachelor's degree, taking into account from your bachelor's access score, the final average and other variables that could be correlated with the four areas of knowledge of the General Examination for Bachelor's Degree (EGEL). This in order to make suggestions to the academy that allows it to focus efforts and carry out academic-administrative strategies that help to achieve improvements in the results of the students and that this same achieve the necessary skills for their graduation.

Within the results, it was highlighted that the access score is correlated with the EGEL average, the general average, as well as the different areas of knowledge with the exception of the Architectural Project area (PA), for this reason, the different recommendations are They directed towards this practical exam, which turned out to obtain the lowest results in the areas of knowledge of the aforementioned evaluation.

One way in which universities measure the level of competencies achieved or identify the level of knowledge and academic skills of graduates is through the General Examination for Bachelor's Degree (EGEL), the results of this test have not been entirely satisfactory since its beginnings to date, leaving a gap of opportunity in the educational task.

Velazquez Ramírez (2021), comments that, regarding educational evaluation, this context has brought multiple challenges such as the postponement or cancellation of exam applications at the beginning of the pandemic. The institutions did not have the conditions to carry them out in person and they lacked alternative remote assessment plans that complied with the security measures necessary to address potential problems of protection of information, supporters, their responses and content. of the tests, which could jeopardize the reliability and validity of the results.

For students, the EGEL test is an option as a degree modality and it is a mandatory requirement to present the test, but it is not something that prevents or determines graduation; In other words, a student can obtain a No Testimony result and graduate from another modality without any problem. Thus, the relevance of the test does not lie in the possible direct consequences for the student, but rather at an institutional level (which also includes students, but not directly in the graduation-graduation process) (Jiménez Moreno & Gutiérrez Zavala , 2017).

Performance testimonials achieved at the national level.

Based on the described criteria established by the EGEL Technical Council in Architecture, the distribution of testimonials of performance of the supporters who presented the EGEL during 2018. Of these, 9% obtained an outstanding performance testimony; 12%, a satisfactory performance testimony and 79% did not obtain testimony (Ceneval, Annual Report of Results 2018 EGEL-ARQUI, 2019).

Sustainers who presented the EGEL during 2019, 9.4% obtained an outstanding performance testimony; 13.8%, a testimony of satisfactory performance, and 76.9%, did not obtain testimony (Ceneval, Annual Report of Results 2019 EGEL-ARQUI, 2020) Sustainability who presented the EGEL during 2020, 19.7% obtained an outstanding performance testimony; 21.1%, a testimonial of satisfactory performance; and 59.2%, did not obtain testimony (Ceneval, EGEL-ARQUI Annual Results Report 2020, 2021).

Objective

To know the level of performance of the General Examination for the Exit of the Degree in Architecture (EGEL-ARQUI) of the students before and during the pandemic of the Degree of Architecture of the Tecnológico de Estudios Superiores de Valle de Bravo.

Methodology

Developing

The research is quantitative-qualitative and descriptive, not experimental, it is longitudinal of three generations of the years 2018, 2019 and 2020, which presented the EGEL-ARQUI exam, the results of each generation were analyzed taking the total averages of the areas/subareas.

A previous three-year review of the graduation results of the Bachelor of Architecture was carried out, where a decrease in favorable results of the students who passed the exam to date was observed, in the pandemic.

From the different situations that could influence satisfactory performance such as accessibility to a computer, internet connection, a suitable place to take the exam, preparation to answer the exam.

Results

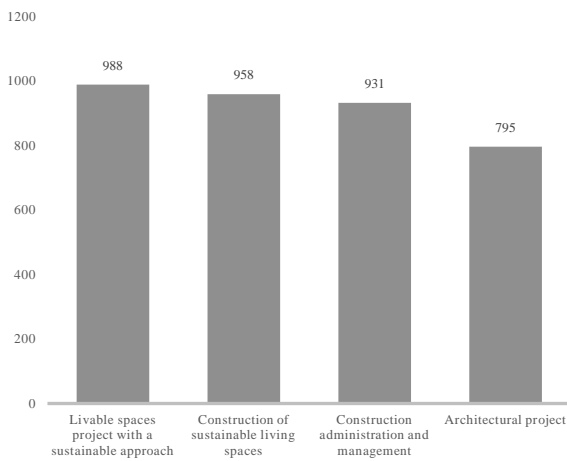
Table 1 shows the summary of the general averages of the areas and subareas of the different generations.

Generation	Livable spaces project with a sustainable approach	Averages Area /Sub-Areas Construction of sustainable living spaces	Construction administration and management	Architectural project	General average	Students satisfactory performance
2018	908	958	931	795	898	0
2019	944	994	1,001	846	946	2
2020	951	1,007	995	760	928	1
Average	934	986	976	800	924	1

Table 1 General summary of the Results for the three years 2018, 2019 and 2020.

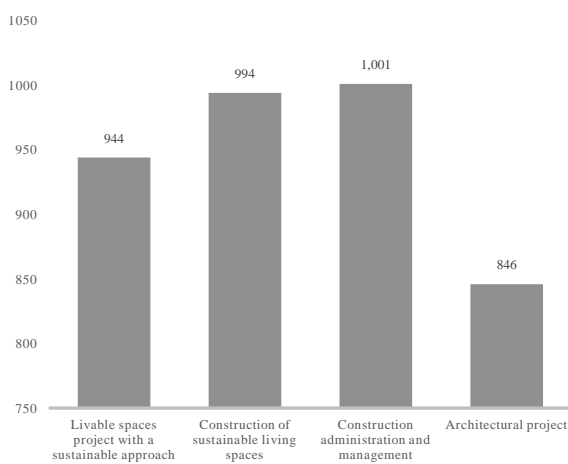
Source: self made

From obtaining data from the 2018 generation, in graph 1 it can be seen that the highest average was obtained by the area of construction of sustainable living spaces with 958 points.



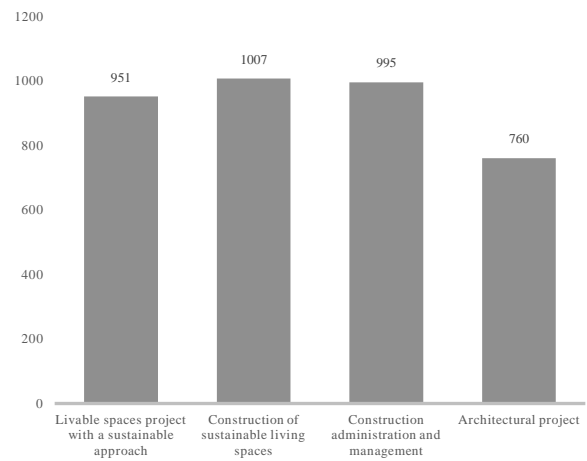
Graph 1 Averages of Areas/Subareas year 2018
Source: Self Made

In the generation of the year 2019, in graph 2 it can be seen that the data showed the highest average for the Administration and construction management area with 1,001 points.



Graph 2 Averages of Areas/Subareas year 2019
Source: Self Made

In the generation of the year 2020, in graph 3 it can be seen that the area of construction of sustainable habitable spaces has the highest average with 1,007 points.



Graph 3 Averages of Areas/Subareas year 2020
Source: Self Made

Analysis of results

The results that were presented in the different generations yielded the averages of the following data: the area of knowledge that presented the highest score is that of Construction of sustainable habitable spaces, being the theoretical area with the highest score in the three generations, in second place, construction administration and management, thirdly, the Living Spaces Project with a Sustainable Approach and the lowest score was presented in the Architectural Project.

The generation that obtained the highest average score in the different areas is that of 2019 with 946 points and two students achieved a satisfactory performance, followed by that of 2020 with 928 with a student with satisfactory performance and the lowest in score is The generation of the year 2018 with 898, satisfactory performances were not achieved.

The area with the lowest score on average was presented in the Architectural Project with 800 on average of the three generations, being the year 2020 (COVID-19 pandemic), the lowest average with 760 points out of 1000 possible to obtain a satisfactory performance, which implies that this area failed.

Generally satisfactory performance cannot automatically be obtained since it is required to obtain at least two satisfactory performances from three areas or subareas.

Conclusions

Greater attention must be given to subjects that are directly related to the Architectural Project, especially the Architectural Design, since the students lack the skills to present the final executive project and work on pressure in the delivery of the architectural project. Strengthen the Project Area for living spaces with a sustainable approach, Administration and management of the construction and Construction of sustainable living spaces.

Recommendations

With the analysis and results obtained, the pertinent actions are proposed to achieve satisfactory and outstanding performances of the students when presenting the exit exam. Academic consultancies will be assigned to the groups that will present the exit exam, with teachers in the four areas of the exam as responsible. Group and individual consultancies will be provided by teachers of the different areas, which include Architectural Design, Construction Administration, Costs and budgets, Supervision and control of work, Structures, Installations.

References

- Alegría Vidal, R. M. (2021). Metacognición y logro de competencias en la asignatura Taller IV del cuarto ciclo de la carrera de Arquitectura de la USMP-2018.
- Castillo Zumaran, S. J., & Leon Diaz, E. E. (2021). Modelo Flipped Classroom en el desempeño académico de estudiantes universitarios.
- Ceneval. (Septiembre de 2019). *Informe Anual de Resultados 2018 EGEL-ARQUI*. Obtenido de https://ceneval.edu.mx/wp-content/uploads/2021/07/ARQUI_2018.pdf
- Ceneval. (noviembre de 2020). *Guía para el sustentante EGEL-ARQUI 2020*. Obtenido de https://ceneval.edu.mx/wp-content/uploads/2021/07/EX-EGEL-GUIA_EGEL_ARQUITECTURA_20210715.pdf
- Ceneval. (Mayo de 2020). *Informe Anual de Resultados 2019 EGEL-ARQUI*. Obtenido de https://ceneval.edu.mx/wp-content/uploads/2021/07/ARQUI_2019.pdf
- Ceneval. (Noviembre de 2021). Obtenido de <https://ceneval.edu.mx/examenes-egreso-egel/>
- Ceneval. (Abril de 2021). *Informe Anual de Resultados 2020 EGEL-ARQUI*. Obtenido de https://ceneval.edu.mx/wp-content/uploads/2021/07/ARQUI_2020.pdf
- Cruz Pérez, A. M. *Trayectorias, encuentros y desencuentros en la aspiración a la UN: ¿Cómo van las desigualdades de género?* (Doctoral dissertation, Universidad Nacional de Colombia).
- Jiménez Moreno, J. A., & Gutiérrez Zavala, A. P. (2017). *La Calidad Educativa en Educación Superior: La importancia de su definición por parte de las IES y la evaluación de sus estudiantes al egreso de la licenciatura*. San Luis Potosí, México.
- LÓPEZ, G. B. (2021). *Aprendizaje del idioma inglés de un adulto intermedio con estudiantes jóvenes en el Departamento de Lenguas Tuxtla, UNACH*.
- Mamani Coaquira, H. (2021). *La neuroeducación y desempeño docente en la Escuela Profesional de Educación Primaria UNAP-2020*.
- TESVB. (20 de diciembre de 2017). *Reglamento de Titulación Integral del Tecnológico de Estudios Superiores de Valle de Bravo*. (P. O. LEGISTEL, Ed.) Obtenido de <http://legislacion.edomex.gob.mx/node/34338>
- Velazquez Ramírez, S. (2021). *La evaluación en el mundo durante la pandemia*. *Revista de Evaluación e Investigación Educativa*. Obtenido de <https://online.flippingbook.com/link/871941/2/>