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STUDENT SKILLS

IN THE TEACHING OF INTERNATIONAL LAW THE CENTRAL UNIVERSITY IN ECUADOR

COMPETENCIAS DE LOS ESTUDIANTES EN LA ENSEÑANZA DEL DERECHO INTERNACIONAL EN LA UNIVERSIDAD CENTRAL DE ECUADOR

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ABSTRACT

The objective of this study is to determine the student competencies with the greatest impact to promote in law students at the Central University of Ecuador, to develop their learning capacity in International Law. For this, the competencies suggested by the Pacific Alliance for law students are selected. The use of multicriteria tools, and neutrosophy, allowed to determine the competencies closest to the ideal solution, according to the evaluation criteria conceived. The skills closest to the optimal solution were related to knowing, interpreting, and applying the rules and principles of the national and international legal system; and that related to the ability to work in interdisciplinary teams. The study allowed the evaluation of some dimensions associated with the evaluated competencies. It was observed that there is a low general level of performance in the competencies analyzed. The competence associated with the understanding of political, social, economic, personal, and psychological phenomena and their association with law, obtained the lowest results in both dimensions analyzed.

Keywords: student skills, international law, neutrosophy

RESUMEN

El objetivo de este estudio es determinar las competencias estudiantiles de mayor impacto a promover en los estudiantes de Derecho de la Universidad Central del Ecuador, para desarrollar su capacidad de aprendizaje en Derecho Internacional. Para ello, se seleccionan las competencias sugeridas por la Alianza del Pacífico para los estudiantes de Derecho. El uso de herramientas multicriterio, y la neutrosofía, permitieron determinar las competencias más cercanas a la solución ideal, según los criterios de evaluación concebidos. Las competencias más cercanas a la solución óptima fueron las relacionadas con el conocimiento, interpretación y aplicación de las normas y principios del sistema jurídico nacional e internacional; y la relacionada con la capacidad de trabajo en equipos interdisciplinarios. El estudio permitió evaluar algunas dimensiones asociadas a las competencias evaluadas. Se observó que existe un bajo nivel general de desempeño en las competencias analizadas. La competencia asociada a la comprensión de los fenómenos políticos, sociales, económicos, personales y psicológicos y su asociación con el derecho, obtuvo los resultados más bajos en las dos dimensiones analizadas.

Palabras clave: competencias de los estudiantes, derecho internacional, neutrosofía

INTRODUCTION

Nowadays, knowledge is considered a strategic, productive, and priority investment in the economy and society. Expenses associated with education are no longer perceived as a burden and are beginning to be valued as a contribution to social justice, productivity, and equity (Jane, 1993). The globalization that the current world is experiencing has strengthened this trend, favoring, in many cases, the field of pedagogy. (Tham et al, 2021).

The fundamental objective of pedagogical knowledge management is the incorporation, in the teacher's work, of an integrating process that makes it possible to strengthen teaching and learning. This allows generating, in students, the ability and tranquility to face situations that may arise in their academic and professional development. (Brun & Hinostroza, 2014).

The teaching of Law is one of the most important training activities in order to maintain equity and social justice. Traditionally, the teaching of Law has a certain inclination towards strengthening the theoretical aspects while, in professional practice, practical skills are acquired. In this way, the conception that the student should worry about learning Law from his teacher is strengthened, so that later, in a promised short term, develop the essential skills for the exercise. (Li & Sun, 2022).

In this context, the teacher is considered "a repeater of knowledge" in front of his students. Among the ambivalent aspects generated by this model, there is the quality of the experience accumulated by the teacher. In this way, the teacher enriches the knowledge of the students, but only to the extent that their own knowledge is updated. (Gökçe, 2020). Likewise, when imparting such knowledge, the student is limited to what the teacher transmits in front of the group. So, in the traditional model, the teacher is responsible for organizing knowledge, isolating and elaborating what must be learned, and tracing the path his students will follow. (Anand, 2018).

In this sense, as a general rule, the teaching of Law has a strong theoretical character, with a predominance of the magisterial chair and memory retention, due to the repetition of codes and laws and inflexible curricula. (Tsaoussi, 2020). This generates an absence of innovative pedagogical strategies, which results in the student's inability to communicate and argue their ideas. As a result, the development of critical and reflective thinking in the student and future lawyer is hindered to a certain extent. (Tamanaha, 2020; Kuchuk et al, 2019).

In such a context, the traditional university model has been generating important changes to adapt to the social reality that requires a permanent evolution. In this sense, the previous perspective has been modified, because it has been understood that the teaching activity must go one step forward. This means developing, if you want to do it seriously, the necessary skills in students for their professional, social, and personal development. (Kholikova, 2021; von Feigenblatt et al, 2022).

Competency-based learning refers to systems of instruction, assessment, grading, and academic reporting, which are based on the knowledge and skills that students demonstrate they have learned and are expected to learn as they progress through their education. (Levine & Patrick, 2019). Competency-based education attempts to promote dynamic functional knowledge beyond theoretical and memorizing pedagogy. Innovative aspects are incorporated into it. Among them, is the active participation of the student to achieve significant learning through the creation, use, and enhancement of their skills. (Everett, 2019).

According to the abovementioned, in the competency-based educational model, the student builds knowledge with what he investigates, so the teacher is a learning guide. (Anderson, 2018). On the other hand, among the fundamental professional skills in the training of jurists and lawyers are those that enhance interpretation, systematization, integration, argumentation, and application. Together with this, knowing how to reflect, identify, choose, dominate and integrate social problems allows us to interpret the principles, theories, norms, and axioms, in order to understand and apply the discipline of law. (Guevara et al, 2019)

Taking into account what was previously established, the great importance of promoting a competency-based education for law students throughout the country is evident. This work responds to the needs expressed by the Central University of Ecuador (UCE in Spanish). The center seeks to improve current teaching methods, to maintain flexibility and international relevance for the optimal preparation of its graduates.

The faculty of Jurisprudence, Political and Social Sciences, is one of the faculties with the greatest weight on social responsibility. It welcomes the country's future law professionals, so the training of competent professionals in all possible areas is a task of national impact. Given the situation stated above, the directive of the faculty proposes the realization of the present study that aims to determine the student competencies with the greatest impact to be promoted in the law students of the UCE to enhance the learning capacity towards International Law.

As support for the decision-making process, multi-criteria decision methods and the application of neutrosophy are

used. At the same time, methods of generating ideas, review of the documentary, and bibliographic base are also utilized. The first section of this work focuses on providing a theoretical basis for the main methods used during the study, then proceeds to the application of the proposed methods after which the results obtained are shown.

METHOD

First, some basic concepts about the neutrosophic theory and its relationship with the multicriteria method used are defined.

Definition 1. Let X be a space of points (objects) with generic elements in X denoted by x. A single-valued neutrosophic set (SVNS) A in X is characterized by truth-membership function TA(x), indeterminacy-membership function IA(x), and falsity membership function FA(x). Then, an SVNS A can be denoted by $A = \{x, TA(x), IA(x), FA(x) \ x \in X\}$, where TA(x), IA(x), FA(x), $FA(x) \in [0.1]$ for each point x in X. Therefore, the sum of TA(x), IA(x) and FA(x) satisfies the condition $0 \le TA(x) + IA(x) + FA(x) \le 3$. (Xu et al, 2020)

For convenience, a SVN number is denoted by A = (a b c), where a, b, c \in [0,1] and a + b + c \leq 3

Definition 2. Let A1= A1= (a1, b1, c1) and A2 = (a2, b2, c2) be two SVN numbers, then summation between A1 and A2 is defined as follows:

$$A1 + A2 = (a1 + a2 - a1a2, b1b2, c1c2)$$
 (1)

Definition 3. Let A1= (a1, b1, c1) and A2 = (a2, b2, c2) be two SVN numbers, then multiplication between A1 and A2 is defined as follows:

$$A1 * A2 = (a1a2, b1 + b2 - b1b2, c1 + c2 - c1c2)$$
 (2)

Definition 4. Let A = (a, b, c) be a SVN number and an arbitrary positive real number, then: $\lambda \in \mathbb{R}$

$$\lambda A = (1 - (1 - a)^{\lambda}, b^{\lambda}, c^{\lambda}), \lambda > 0$$
(3)

Definition 5. Let be a set of n SVN numbers, where Aj = (aj, bj, cj) (j = 1, 2,..., n). The single value neutrosophic weighted average operator on them is defined by $A = \{A_1, A_2, ..., A_n\}$

$$\sum_{j=1}^{n} \lambda_{j} A_{j} = \left(1 - \prod_{j=1}^{n} \left(1 - a_{j}\right)^{\lambda_{j}}, \prod_{j=1}^{n} b_{j}^{\lambda_{j}}, \prod_{j=1}^{n} c_{j}^{\lambda_{j}}\right)_{(4)}$$

Where is the weight of Aj (j= 1, 2, ..., n), and $\lambda_j\lambda_j\in[0,1]\sum_{j=1}^n\lambda_j=1$

Definition 6. Let be a vector of n SVN numbers, such that $Aj^* = (aj^*, bj^*, cj^*)$ (j= 1,2,...,n), and (i= 1,2,...,m), (j= 1,2,...,n). Then the separation measure between Bi and

$$\mathbf{A}^* = \{A_1^*, A_2^*, \dots, A_n^*\}$$
 $\mathbf{B}_i = \{B_{i1}, B_{i2}, \dots, B_{im}\}$ \mathbf{A}^* based on Euclidian distance is defined as follows:

$$\mathbf{s}_{i} = \left(\frac{1}{3}\sum_{j=1}^{n} (\left|a_{ij} - a_{j}^{*}\right|)^{2} + (\left|b_{ij} - b_{j}^{*}\right|)^{2} + (\left|c_{ij} - c_{j}^{*}\right|)^{2}\right)^{\frac{1}{2}}$$
(i= 1,2,...,m)

Next, we proposed a score function for ranking SVN numbers as follows:

Definition 7. Let A = (a,b,c) be a single-valued neutrosophic number, a score function S of a single-valued neutrosophic value, based on the truth-membership degree, indeterminacy-membership degree, and falsehood membership degree is defined by

$$S(A) = \frac{1 + a - 2b - c}{2} \tag{6}$$

where

The score function S is reduced to the score function proposed by (Li, 2005) if b = 0 and $a + b \le 1$.

The concept of a linguistic variable is very useful for solving decision-making problems with complex content. The value of a linguistic variable is expressed as an element of its term set. Such linguistic values can be represented using single-valued neutrosophic numbers.

In the method, there are k-decision-makers, m-alternatives, and n-criteria.k-decision makers evaluate the importance of the m-alternatives under n-criteria and rank the performance of the n-criteria with respect to linguistic statements converted into single-valued neutrosophic numbers. The importance weights based on single-valued neutrosophic values of the linguistic terms are given in Table 1.

Table1: Linguistic variable and SVNSs. Source: (Biswas et al, 2016)

| Linguistic term | SVNSs |
|---------------------------|------------------|
| Very Low Influence/ (MNI) | (0.9;0.1;0.1) |
| No Influence/(NI) | (0.75;0.25;0.20) |
| Medium Influence/(MI) | (0.50;0.5;0.50) |
| Influence/(I) | (0.35;0.75;0.80) |
| Very High Influence/(VHI) | (0.10;0.90;0.90) |

The TOPSIS method for SVNS used consists of the following:

Assuming that $A = \{\rho_1, \rho_2, ..., \rho_m\}$ is a set of alternatives and $G = \{\beta_1, \beta_2, ..., \beta_n\}$ is a set of criteria, the following steps will be carried out:

Step 1: Determine the relative importance of the experts. For this, the specialists evaluate according to the linguistic scale that appears in Table 1, and the calculations are made with their associated SVNN. Let's call $A_t = (a_t, b_t, c_t)$ the SVNS corresponding to the t-th decision-maker (t = 1, 2,..., k). The weight is calculated by the following formula:

$$\delta_{t} = \frac{a_{t} + b_{t} \left(\frac{a_{t}}{a_{t} + c_{t}}\right)}{\sum_{t=1}^{k} a_{t} + b_{t} \left(\frac{a_{t}}{a_{t} + c_{t}}\right)}$$

$$\delta_{t} \geq 0 \text{ and } \sum_{t=1}^{k} \delta_{t} = 1 \quad (7)$$

Step 2: Construction of the aggregate unique value neutrosophic decision matrix. This matrix is defined by $D = \sum_{t=1}^k \lambda_t D^t$, where $d_{ij} = (u_{ii}, r_{ij}, v_{ij})$ and is used to aggregate all the individual evaluations. d_{ij} is calculated as the aggregation of the evaluations $(u_{ij}^t, r_{ij}^t, v_{ij}^t)$ given by each expert, using the weights of each one with the help of Equation 4. In this way, a matrix $D = (d_{ij})_{ij}$ is obtained, where each d_{ij} is a SVNN (i = 1,2,..., m; j = 1,2,..., n).

Step 3: Determination of the Weight of the Criteria. Suppose that the weight of each criterion is given by $W = (w_1, w_2, ..., w_n)$, where w_j denotes the relative importance of the criterion $\lambda_t w_j^t = (a_j^t, b_j^t, c_j^t)$. Si is the evaluation of the criterion by the t-th expert. Equation 5 is then used to add the with the weights λ_t .

Step 4: Construction of the neutrosophic decision matrix of the weighted mean of single values with respect to the criteria.

$$D^* = D * W,$$
where $d_{ij} = (a_{ij}, b_{ij}, c_{ij})$ (8)

Step 5: Calculation of the positive and negative SVNN ideal solutions. The criteria can be classified as cost-type or benefit-type. Let G1 be the set of benefit-type criteria and G2 be the cost-type criteria. The ideal alternatives will be defined as follows:

The positive ideal solution corresponds to G1.

$$\rho^{+} = a_{\rho+w}(\beta_j), b_{\rho+w}(\beta_j), ac_{\rho+w}(\beta_j)$$
(9)

The negative ideal solution corresponds to G2.

$$\rho^{-} = (a_{\rho-w}(\beta_j), b_{\rho-w}(\beta_j), ac_{\rho-w}(\beta_j))$$
(10)

Where:

$$a_{\rho+w}(\beta_{j}) = \begin{cases} \max_{i} a_{\rho i w}(\beta_{j}), si \ j \in G_{1} \\ \min_{i} a_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases} \qquad a_{\rho-w}(\beta_{j}) = \begin{cases} \min_{i} a_{\rho i w}(\beta_{j}), si \ j \in G_{1} \\ \max_{i} a_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases}$$

$$b_{\rho+w}(\beta_{j}) = \begin{cases} \max_{i} b_{\rho i w}(\beta_{j}), si \ j \in G_{1} \\ \min_{i} b_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases} \qquad b_{\rho-w}(\beta_{j}) = \begin{cases} \min_{i} b_{\rho i w}(\beta_{j}), si \ j \in G_{1} \\ \max_{i} b_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases}$$

$$c_{\rho+w}(\beta_{j}) = \begin{cases} \max_{i} c_{\rho i w}(\beta_{j}), si \ j \in G_{1} \\ \min_{i} c_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases}$$

$$c_{\rho-w}(\beta_{j}) = \begin{cases} \min_{i} c_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases}$$

$$c_{\rho-w}(\beta_{j}) = \begin{cases} \min_{i} c_{\rho i w}(\beta_{j}), si \ j \in G_{2}, \end{cases}$$

Step 6: Calculation of the distances to the positive and negative SVNN ideal solutions. With the help of Equation 5, the following equations are calculated:

$$d_i^+ = \left(\frac{1}{3}\sum_{j=1}^n \left\{ \left(a_{ij} - a_j^+\right)^2 + \left(b_{ij} - b_j^+\right)^2 + \left(c_{ij} - c_j^+\right)^2 \right\} \right)^{\frac{1}{2}}$$
(11)

$$d_{i}^{-} = \left(\frac{1}{3}\sum_{j=1}^{n}\left\{\left(a_{ij} - a_{j}^{-}\right)^{2} + \left(b_{ij} - b_{j}^{-}\right)^{2} + \left(c_{ij} - c_{j}^{-}\right)^{2}\right\}\right)^{\frac{1}{2}}$$
(12)

Step 7: Calculation of the Proximity Coefficient (CP). The CP of each alternative is calculated with respect to the positive and negative ideal solutions.

(13)

Where 0≤.

Step 8: Determination of the order of the alternatives. They are ordered according to what was achieved by . The alternatives are ordered from highest to lowest, with the condition that \rightarrow 1 is the optimal solution.

Methodology

Competency-based training is an approach to education specifically focused on teaching and assessment. According to (James, 2019), the competencies focus on:

- a) the integration of knowledge, cognitive processes, skills, abilities, and values;
- b) the construction of training programs according to the needs of the context;
- c) the orientation of education through standards in all its processes.

According to this, competencies imply a set of combined knowledge, procedures, and attitudes. In this sense, the student must know how to be and be for the professional activity. On the other hand, it should be considered that being competent does not only imply having certain knowledge or skills but also having the ability to mobilize those resources.

The main objective of this association is focused on economic development, however, within it, various lines of cooperation have been promoted and implemented, including student and academic exchange. In this field, the associations achieved between law and jurisprudence centers, which are in charge of cultivating future professionals in the field, stand out. In this way, this non-governmental

organization has drawn up a list of desirable skills to be developed by budding lawyers. (Sanromán & Morales, 2016).

RESULTS

For the development of the analysis, there are 5 experts, Doctors in Law Sciences, fully trained for the evaluation of the selected competencies. Experts are asked for their opinion on which of the listed competencies may be of greater weight for the development of skills in students, taking into account: 1. Usefulness for optimal development in international fields; 2. Development of adaptability and 3. Usefulness in personal and human development.

For the proposed study, the experts considered that the criteria to be evaluated do not have the same level of significance. It was estimated that C1. "Utility for optimal development in international fields" and C2. "Development of adaptive capacity" have greater significance for the evaluation to be carried out, according to the elements shown in Table 2.

Table 2: Weights of the evaluation criteria according to the opinion of the experts

| Criteria | Criterion weight | |
|--|---------------------------|--|
| Utility for optimal develop- ment in international fields | (0.85573;0.14427;0.13195) | |
| Development of adaptability | (0.85573;0.14427;0.13195) | |
| Usefulness in personal and human development | (0.76091;0.23909;0.20913) | |

The activities for the development of the evaluations are carried out in a work session destined solely for it. For the study, the opinion of each expert is considered extremely important and no significant differences between them are considered. To carry out better handling and presentation of the information, the coding of the competencies to be analyzed is carried out as shown in Table 3.

Table 3: Coding of selected competencies

| Coding | Competencies |
|---------|---|
| Comp. 1 | Ability to analyze a wide variety of complex works in relation to law and synthesize their arguments accurately. |
| Comp. 2 | Ability to make reasoned legal decisions. |
| Comp. 3 | Know, interpret and apply the rules and principles of the national and international legal system in specific cases. |
| Comp. 4 | Be aware of the ethical dimension of the legal profession and the social responsibility of the law graduate, and act accordingly. |
| Comp. 5 | Ability to apply scientific research criteria in their professional activity. |
| Comp. 6 | Ability to write texts and express themselves orally in a fluent and technical language, using precise and clear legal terms. |

| them, to propose a reasonable solution. Comp. 10 Ability to reason and argue legally. Comp. 11 Adequately understand political, social, economic, personal, and psychological phenomena -among others-, condering them in the interpretation and application of the law. Comp. 12 Ability to work in interdisciplinary teams as a legal expert and contribute effectively to their tasks. Comp. 13 Ability to apply their knowledge especially effectively in a given area of their profession. Comp. 14 Ability to use the necessary technology in the search for relevant information for performance and professional dating. Comp. 15 Seek justice and equity in all situations in which it intervenes. Comp. 16 Act loyally, diligently, and transparently in defense of the interests of the people it represents. Comp. 17 Consider the relevance of the use of alternative means in conflict resolution. Comp. 18 Understand and relate the philosophical and theoretical foundations of law with its practical application. Comp. 19 Ability to act legally and technically in different administrative or judicial instances with the proper use of process acts, and procedures. | | |
|--|----------|---|
| Comp. 9 Ability to dialogue and debate from a legal perspective, understanding the different points of view and articular them, to propose a reasonable solution. Comp. 10 Ability to reason and argue legally. Comp. 11 Adequately understand political, social, economic, personal, and psychological phenomena -among others-, codering them in the interpretation and application of the law. Comp. 12 Ability to work in interdisciplinary teams as a legal expert and contribute effectively to their tasks. Comp. 13 Ability to apply their knowledge especially effectively in a given area of their profession. Comp. 14 Ability to use the necessary technology in the search for relevant information for performance and professional dating. Comp. 15 Seek justice and equity in all situations in which it intervenes. Comp. 16 Act loyally, diligently, and transparently in defense of the interests of the people it represents. Comp. 17 Consider the relevance of the use of alternative means in conflict resolution. Comp. 18 Understand and relate the philosophical and theoretical foundations of law with its practical application. Comp. 19 Ability to act legally and technically in different administrative or judicial instances with the proper use of process acts, and procedures. Comp. 20 Know a foreign language that allows efficient performance in the legal field (English, Portuguese and Spanish). | Comp. 7 | Demonstrate critical awareness in the analysis of the legal system. |
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| Comp. 11 Adequately understand political, social, economic, personal, and psychological phenomena -among others-, c dering them in the interpretation and application of the law. Comp. 12 Ability to work in interdisciplinary teams as a legal expert and contribute effectively to their tasks. Comp. 13 Ability to apply their knowledge especially effectively in a given area of their profession. Comp. 14 Ability to use the necessary technology in the search for relevant information for performance and professional dating. Comp. 15 Seek justice and equity in all situations in which it intervenes. Comp. 16 Act loyally, diligently, and transparently in defense of the interests of the people it represents. Comp. 17 Consider the relevance of the use of alternative means in conflict resolution. Comp. 18 Understand and relate the philosophical and theoretical foundations of law with its practical application. Comp. 19 Ability to act legally and technically in different administrative or judicial instances with the proper use of process acts, and procedures. Comp. 20 Know a foreign language that allows efficient performance in the legal field (English, Portuguese and Spanish). | Comp. 9 | Ability to dialogue and debate from a legal perspective, understanding the different points of view and articulating them, to propose a reasonable solution. |
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| Comp. 14 Ability to use the necessary technology in the search for relevant information for performance and professional dating. Comp. 15 Seek justice and equity in all situations in which it intervenes. Comp. 16 Act loyally, diligently, and transparently in defense of the interests of the people it represents. Comp. 17 Consider the relevance of the use of alternative means in conflict resolution. Comp. 18 Understand and relate the philosophical and theoretical foundations of law with its practical application. Comp. 19 Ability to act legally and technically in different administrative or judicial instances with the proper use of process acts, and procedures. Comp. 20 Know a foreign language that allows efficient performance in the legal field (English, Portuguese and Spanish). | Comp. 12 | Ability to work in interdisciplinary teams as a legal expert and contribute effectively to their tasks. |
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| Comp. 19 Ability to act legally and technically in different administrative or judicial instances with the proper use of process acts, and procedures. Comp. 20 Know a foreign language that allows efficient performance in the legal field (English, Portuguese and Spanish). | Comp. 17 | Consider the relevance of the use of alternative means in conflict resolution. |
| comp. 19 acts, and procedures. Comp. 20 Know a foreign language that allows efficient performance in the legal field (English, Portuguese and Spanish). | Comp. 18 | Understand and relate the philosophical and theoretical foundations of law with its practical application. |
| | Comp. 19 | Ability to act legally and technically in different administrative or judicial instances with the proper use of processes, acts, and procedures. |
| Comp. 21 Ability to decide whether the factual circumstances are clear enough to make a decision based on law. | Comp. 20 | Know a foreign language that allows efficient performance in the legal field (English, Portuguese and Spanish). |
| | Comp. 21 | Ability to decide whether the factual circumstances are clear enough to make a decision based on law. |
| Comp. 22 Ability to face new situations and contribute to the creation of institutions and legal solutions in general and particles. | Comp. 22 | Ability to face new situations and contribute to the creation of institutions and legal solutions in general and particular cases. |
| Comp. 23 Ability to exercise their profession working as a team with colleagues. | Comp. 23 | Ability to exercise their profession working as a team with colleagues. |
| Comp. 24 Know, interpret and apply the general principles of law and the legal system. | Comp. 24 | Know, interpret and apply the general principles of law and the legal system. |

According to the analyzed criteria, the aggregate decision matrix resulting from the process is shown in Table 4.

Table 4: Aggregate decision matrix resulting from the analysis performed

| Competencies | Criteria | | | |
|--------------|---------------------|---------------------|---------------------|--|
| Competencies | C1 | C2 | C3 | |
| Comp. 1 | (0.242,0.758,0.725) | (0.129,0.871,0.871) | (0.083,0.944,0.956) | |
| Comp. 2 | (0.369,0.631,0.631) | (0.129,0.871,0.871) | (0.083,0.944,0.956) | |
| Comp. 3 | (0.369,0.631,0.631) | (0.369,0.631,0.631) | (0.129,0.871,0.871) | |
| Comp. 4 | (0.242,0.758,0.725) | (0.242,0.758,0.725) | (0.129,0.871,0.871) | |
| Comp. 5 | (0.242,0.758,0.725) | (0.083,0.944,0.956) | (0.129,0.871,0.871) | |
| Comp. 6 | (0.242,0.758,0.725) | (0.129,0.871,0.871) | (0.083,0.944,0.956) | |
| Comp. 7 | (0.369,0.631,0.631) | (0.083,0.944,0.956) | (0.129,0.871,0.871) | |
| Comp. 8 | (0.129,0.871,0.871) | (0.369,0.631,0.631) | (0.083,0.944,0.956) | |
| Comp. 9 | (0.129,0.871,0.871) | (0.369,0.631,0.631) | (0.129,0.871,0.871) | |
| Comp. 10 | (0.242,0.758,0.725) | (0.083,0.944,0.956) | (0.242,0.758,0.725) | |
| Comp. 11 | (0.369,0.631,0.631) | (0.083,0.944,0.956) | (0.369,0.631,0.631) | |
| Comp. 12 | (0.369,0.631,0.631) | (0.129,0.871,0.871) | (0.369,0.631,0.631) | |
| Comp. 13 | | | (0.242,0.758,0.725) | |
| Comp. 14 | (0.242,0.758,0.725) | (0.129,0.871,0.871) | (0.242,0.758,0.725) | |
| Comp. 15 | (0.242,0.758,0.725) | (0.083,0.944,0.956) | (0.242,0.758,0.725) | |

| Comp. 16 | (0.129,0.979,0.631) | (0.129,0.871,0.871) | (0.129,0.871,0.871) |
|----------|---------------------|---------------------|---------------------|
| Comp. 17 | (0.129,0.979,0.631) | (0.083,0.944,0.956) | (0.129,0.871,0.871) |
| Comp. 18 | (0.129,0.871,0.871) | (0.129,0.871,0.871) | (0.369,0.631,0.631) |
| Comp. 19 | (0.242,0.758,0.725) | (0.242,0.758,0.725) | (0.242,0.758,0.725) |
| Comp. 20 | (0.369,0.631,0.631) | (0.129,0.871,0.871) | (0.129,0.871,0.871) |
| Comp. 21 | (0.129,0.871,0.871) | (0.129,0.871,0.871) | (0.369,0.631,0.631) |
| Comp. 22 | (0.129,0.871,0.871) | (0.369,0.631,0.631) | (0.129,0.871,0.871) |
| Comp. 23 | (0.242,0.758,0.725) | (0.242,0.758,0.725) | (0.242,0.758,0.725) |
| Comp. 24 | (0.129,0.871,0.871) | (0.129,0.871,0.871) | (0.369,0.631,0.631) |

Subsequently, the neutrosophic decision matrix is obtained from the weighted average of unique values with respect to the criteria, from the use of equation (8). Table 5 shows the result obtained.

Table 5: Neutrosophic decision matrix of the weighted mean of single values

| | Criteria | | | |
|--------------|---------------------|---------------------|---------------------|--|
| Competencies | C1 | C2 | C3 | |
| Comp. 1 | (0.207;0.793;0.761) | (0.11;0.89;0.888) | (0.063;0.957;0.965) | |
| Comp. 2 | (0.316;0.684;0.68) | (0.11;0.89;0.888) | (0.063;0.957;0.965) | |
| Comp. 3 | (0.316;0.684;0.68) | (0.316;0.684;0.68) | (0.098;0.902;0.898) | |
| Comp. 4 | (0.207;0.793;0.761) | (0.207;0.793;0.761) | (0.098;0.902;0.898) | |
| Comp. 5 | (0.207;0.793;0.761) | (0.071;0.952;0.962) | (0.098;0.902;0.898) | |
| Comp. 6 | (0.207;0.793;0.761) | (0.11;0.89;0.888) | (0.063;0.957;0.965) | |
| Comp. 7 | (0.316;0.684;0.68) | (0.071;0.952;0.962) | (0.098;0.902;0.898) | |
| Comp. 8 | (0.11;0.89;0.888) | (0.316;0.684;0.68) | (0.063;0.957;0.965) | |
| Comp. 9 | (0.11;0.89;0.888) | (0.316;0.684;0.68) | (0.098;0.902;0.898) | |
| Comp. 10 | (0.207;0.793;0.761) | (0.071;0.952;0.962) | (0.184;0.816;0.783) | |
| Comp. 11 | (0.316;0.684;0.68) | (0.071;0.952;0.962) | (0.281;0.719;0.708) | |
| Comp. 12 | (0.316;0.684;0.68) | (0.11;0.89;0.888) | (0.281;0.719;0.708) | |
| Comp. 13 | (0.207;0.793;0.761) | (0.11;0.89;0.888) | (0.184;0.816;0.783) | |
| Comp. 14 | (0.207;0.793;0.761) | (0.11;0.89;0.888) | (0.184;0.816;0.783) | |
| Comp. 15 | (0.207;0.793;0.761) | (0.071;0.952;0.962) | (0.184;0.816;0.783) | |
| Comp. 16 | (0.11;0.982;0.68) | (0.11;0.89;0.888) | (0.098;0.902;0.898) | |
| Comp. 17 | (0.11;0.982;0.68) | (0.071;0.952;0.962) | (0.098;0.902;0.898) | |
| Comp. 18 | (0.11;0.89;0.888) | (0.11;0.89;0.888) | (0.281;0.719;0.708) | |
| Comp. 19 | (0.207;0.793;0.761) | (0.207;0.793;0.761) | (0.184;0.816;0.783) | |
| Comp. 20 | (0.316;0.684;0.68) | (0.11;0.89;0.888) | (0.098;0.902;0.898) | |
| Comp. 21 | (0.11;0.89;0.888) | (0.11;0.89;0.888) | (0.281;0.719;0.708) | |
| Comp. 22 | (0.11;0.89;0.888) | (0.316;0.684;0.68) | (0.098;0.902;0.898) | |
| Comp. 23 | (0.207;0.793;0.761) | (0.207;0.793;0.761) | (0.184;0.816;0.783) | |
| Comp. 24 | (0.11;0.89;0.888) | (0.11;0.89;0.888) | (0.281;0.719;0.708) | |

The results allow obtaining the positive and negative ideal values for each criterion. Subsequently, this allows determining the ideal distances that are used for the calculation of the coefficient of proximity. Table 6 shows the distances to the positive and negative ideal values of each competence, according to the criteria, as well as the calculated coefficients of proximity.

Table 6: Distances to the positive and negative ideal values of each competence and proximity coefficients calculated

| Competencies | d+ | d- | СР |
|--------------|--------|------|-------|
| Comp. 3 | 0.1854 | 0.34 | 0.647 |
| Comp. 12 | 0.2067 | 0.32 | 0.608 |
| Comp. 19 | 0.1684 | 0.24 | 0.588 |
| Comp. 23 | 0.1684 | 0.24 | 0.588 |
| Comp. 11 | 0.2654 | 0.32 | 0.547 |
| Comp. 9 | 0.2776 | 0.25 | 0.474 |
| Comp. 22 | 0.2776 | 0.25 | 0.474 |
| Comp. 20 | 0.2776 | 0.24 | 0.464 |
| Comp. 4 | 0.2336 | 0.2 | 0.461 |
| Comp. 8 | 0.3154 | 0.25 | 0.442 |
| Comp. 13 | 0.2469 | 0.19 | 0.435 |
| Comp. 14 | 0.2469 | 0.19 | 0.435 |
| Comp. 2 | 0.3154 | 0.24 | 0.432 |
| Comp. 18 | 0.2923 | 0.22 | 0.429 |
| Comp. 21 | 0.2923 | 0.22 | 0.429 |
| Comp. 24 | 0.2923 | 0.22 | 0.429 |
| Comp. 7 | 0.3238 | 0.24 | 0.426 |
| Comp. 10 | 0.2978 | 0.19 | 0.389 |
| Comp. 15 | 0.2978 | 0.19 | 0.389 |
| Comp. 16 | 0.3476 | 0.18 | 0.341 |
| Comp. 17 | 0.3854 | 0.18 | 0.318 |
| Comp. 1 | 0.331 | 0.15 | 0.312 |
| Comp. 6 | 0.331 | 0.15 | 0.312 |
| Comp. 5 | 0.339 | 0.15 | 0.307 |

The analysis carried out shows the relative importance of all the competencies analyzed. More than 70% are in ranges close to the ideal values and more than 20% are in ranges greater than 0.50. In this sense, it is observed that the competencies that reached the highest level of similarity in terms of the ideal solution were those related to knowing, interpreting, and applying the norms and principles of the national and international legal system in specific cases; and that related to the ability to work in

interdisciplinary teams as an expert in law and contribute effectively to their tasks.

The enhancement of these skills in students will allow the effective development of future professionals in International Law. Extensive knowledge in national and international instances is essential for such purposes. Likewise, in many cases, the ability to work in a team is more than necessary, as well as association with other professionals, which may result from branches outside the law.

On the other hand, values close and significant to the ideal solutions were observed. Such is the case of competence referring to the ability to act legally and technically in different administrative or judicial instances with the proper use of processes, acts, and procedures; the ability to practice their profession working as a team with colleagues; as well as adequately understand the political, social, economic, personal and psychological phenomena, considering them in the interpretation and application of the law.

The competencies detected as the closest to the ideal solutions constitute a measure on which to work. To this end, it seeks to grant students who wish to profile themselves in International Law, the maximum chances of success in the sector. In this sense, to evaluate the current level of the skills derived from the analysis, an exercise is carried out to evaluate them in a set of 160 students of the career randomly sampled for such purposes.

The evaluation of the competencies was carried out by designing an exercise aimed at evaluating 3 key elements: cognitive knowledge, the practices associated with the competencies, and the behaviors associated with the competencies. (Barry, 2017). The exercise was designed and evaluated together with the faculty of the selected students. An observational factor intervenes in the process of evaluating the competencies, for which the intervention of the faculty was essential.

The results were grouped and tabulated for graphic representation. Simple scales of three levels of performance evaluation were used with respect to the elements evaluated by competency. Figure 1 shows the results obtained.

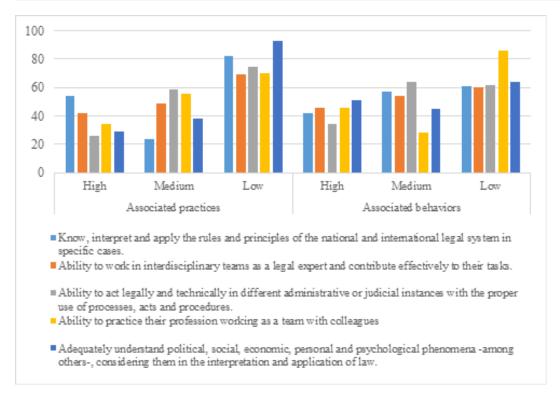


Figure 1: Graphical representation of the current proficiency levels achieved by the students of the sampled course

As can be seen, in general, there is a predominance of students with a low level of performance in terms of the practices associated with the competencies analyzed. Such a case is especially accentuated in the competence associated with the understanding of political, social, economic, personal, and psychological phenomena, considering them in the interpretation and application of the law. In this case, it is observed that more than 50% of the students have low performance.

Regarding this dimension, it is observed that the most positive results are focused on the fact that 33% of the students have a high level of performance in the competence related to the interpretation and application of the norms and principles of the national and international legal system. Likewise, relevant average performance values are observed in terms of the ability to act legally and technically in different administrative or judicial instances and the ability to work as a team.

When analyzing the behaviors associated with the analyzed competencies, it is observed that, in general, there is a slightly higher average with respect to the previous dimension. Even so, an average of almost 50% of students who have low levels in this dimension for each of the competencies is still observed. In this case, the competence associated with the understanding of political, social, economic, personal, and psychological phenomena and their association with law stands out again, with 58% of students with a low level of performance in such rubric.

CONCLUSIONS

The teaching of Law in university centers throughout the country is a fundamental activity that must be carried out with the utmost rigor and efficiency. International law poses challenges and characteristics to legal professionals that require the appropriation of specific or specialized skills that must be fostered from the university stage. The present study allowed to determine the main competencies that a university student of the Law career must develop to be a competent professional in the field of International Law.

The knowledge of experts was used to reach the results achieved. The use of multicriteria tools, and neutrosophy, allowed to determine the competencies closest to the ideal solution, according to the evaluation criteria conceived. The use of neutrosophy to solve the problem allowed the indeterminacy of real-life to be included in its resolution.

The analysis carried out showed that the competencies closest to the optimal solution were related to knowing, interpreting, and applying the norms and principles of the national and international legal system; and related to the ability to work in interdisciplinary teams.

The study allowed the evaluation of some dimensions associated with the evaluated competencies. In this sense, it was observed that there is a low general level of performance in the competencies analyzed. The competence associated with the understanding of political, social, economic, personal, and psychological phenomena and their association with law obtained the lowest results in both dimensions analyzed. It is recommended to carry out an activity plan or curricular modification for the inclusion of learning processes that enhance the desired competencies, according to the results of the study carried out.

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