

Evaluation of Transversal Professional Competences in Two Latin American Public Universities (UNMSM-UNAM)

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Abstract: History records the processes of the conquest in Mexico and Peru with facts of similarity in the development of culture, political and social organization and various religious manifestations that Spaniards found in approximate prehispanic periods, building empires of great wealth being of greater importance among the discoveries of the new continent. During the viceroyalty two universities were founded, after the foundation of Mexico in 1519 and Lima 1535, San Marcos on May 12, 1551, and the Royal University of Mexico on September 21, 1551, important academic institutions in the development of their future nations.

The UNMSM and the UNAM are, nevertheless, two public universities that represent the complexity and cultural diversity of their nations, the identity of their heritage, their scientific and technological development, antecedents that arouse interest in the study of their new professional educational approaches.

The present study aims to evaluate, analyze and compare the level of relevant transversal professional competences in the training of students from two Latin American public universities. In the Professional School of Education, Faculty of Mathematical Sciences of the UNMSM, and the Faculty of Superior Studies of Aragón of the UNAM.

Key words: evaluation, transversal professional competences, public university, internationalization

1. Introduction

The situation of the current public university leads us to confront the uncertainty of the great challenges that the institution faces, its functions, principles and values in society between the traditional model: the conception, structure, system and functions and the necessary changes that restructure its foundations, its permanence in life and national and regional development as a critical stance of the vertiginous events of the transition to the global university, on the way to the new scenario that is forged for professional training, research, social change and labor insertion.

The transversal professional competences constitute one of the ways of the system in which the connection between professional and personal training and the job function are inserted, for what the capacities have developed that include the generality of the professions.

The connection between vocational training based on transversal competences and employability deserves the attention of higher institutions and the labor market, important for the quality of performance expected in the

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functions that the professional is responsible for, since it is clear that the levels of achievement can be predictive of a good performance or an efficient training compared to their peers in the processes of internationalization of higher education.

It is thus related to economic development due to the intangible contributions that knowledge and its application seek in the performance of excellence of the functions that are expected to be achieved. And, in the sense that the University is a public good.

The transformation of the functions that the university teacher experiences has one more element that is explained by the internationalization that generates new needs that entail a perspective that broadens and invigorates its system in contact with other peer institutions, or in interrelation, communication and transmission of academic, scientific and technological experiences in which transversal competences are evidenced, functions change and increase in new, multiple and complex situations. So it responds to a new professional profile.

In this complex scenario of changes, the sense of quality is projected to training and innovation as a way of solving the new problems that the new role of the teacher brings. But, Mas O. (2012), in this regard, the new competence profile must be delimited in order to adequately develop its teaching, research and managerial functions. The confirmation that in the university settings of Latin American countries the implementation of competencies in the professional profiles and curricula are being adopted does not mean that this process is at an optimal level, due to the various difficulties that arise from the conceptualization, procedures and strategies, as well as the evaluation of the levels reached in higher education that generate academic discussions for decision-making and the creation of consensus to define the holistic horizon that commits the teacher, the student and the authorities and, externally, the Government policies.

The internationalization of the university is important not exclusively for research purposes, improving teaching and exchange, it is in correspondence with competitiveness, which implies the management of knowledge such as the administration and the perspective of the result or professional impact that it is proposed to achieve .

Vega U., Figueroa M., and Del Real F. (2017) affirm that education transmits knowledge, attitudes and values from a validated philosophy in a given social context. Its scientific study should be approached as part of the philosophy where reflections arise of what is required today to positively impact the professional environment. This thought results in the reassessment of the importance of human work in which it highlights, among others, the intelligence, creativity and the ability to adapt to changes. Which would affirm the importance of continuous education, training of competencies and their dominion in professional activity.

2. Methodology

The study is quantitative, descriptive-explanatory and compared. It is a basic research because of the increase of knowledge and understanding of the facts, not experimental, since there is no manipulation of the variables. It is a type of strategic research of extension of the scientific method in the possibilities of applying its designs to independent samples. Data analysis is fundamental, as well as considering contexts and factors when comparing empirical results, establishing the similarity, likeness and difference of the profiles and samples. In preparing the instruments, the competencies established in the professional profile of the students were taken into account, since the curricula or study plans differ in the professional careers of the Universidad Nacional Mayor de San Marcos (UNMSM) and those of the National Autonomous University of Mexico (UNAM).

The analysis of common characteristics such as research, multidisciplinary teamwork, evaluation, didactics, the use of ICT and innovation was made. This makes it possible to explain the level of knowledge of transversal competences and the assessment that students from both universities have in this regard.

Molino L. (2010) refers, Luca, J. understands comparative research as a method of control of empirical relationships hypothesized in different contexts.

It was possible to establish through comparative research the empirical verification of the hypothesis formulated in two contexts: the Professional Schools of the Faculty of Education, Faculty of Mathematical Sciences of the UNMSM, and the Faculty of Higher Studies of Aragon of the UNAM, a heterogeneous level of mastery of transversal professional competences in the students of the sample is evident.

The technique used is the survey and the instruments are two questionnaires

Table 1 Population and Sample

Faculties	Population	Sample	Cycle
Students of the Bachelor of Pedagogy of the Faculty of Higher Studies of Aragon of the UNAM	301	81	VIII
School of Professional Education and Faculty of Mathematical Sciences	694	257	VIII

3. Results

It is observed that more than 50% of the surveyed students define transversal professional competence as the capacities, abilities, skills of common general knowledge of all careers. While for 5.1% it is the exercise of abilities in concrete situations of basic understanding.

Table 2 How do You Define Transversal Professional Competence?

Statement	Frequency	Percentage (%)
a) Procedures, experiences involved in specific actions.	16	6.2
b) Capacities, abilities, skills, of general knowledge, common to all careers.	159	61.9
c) Specific knowledge in the realization of actions typical of some careers.	25	9.7
d) Exercising skills in basic concrete situations, of understanding.	13	5.1
e) Aptitude, attitudes, skills that develop in the practice of specific actions	44	17.1

Source: Universidad Nacional Mayor de San Marcos.

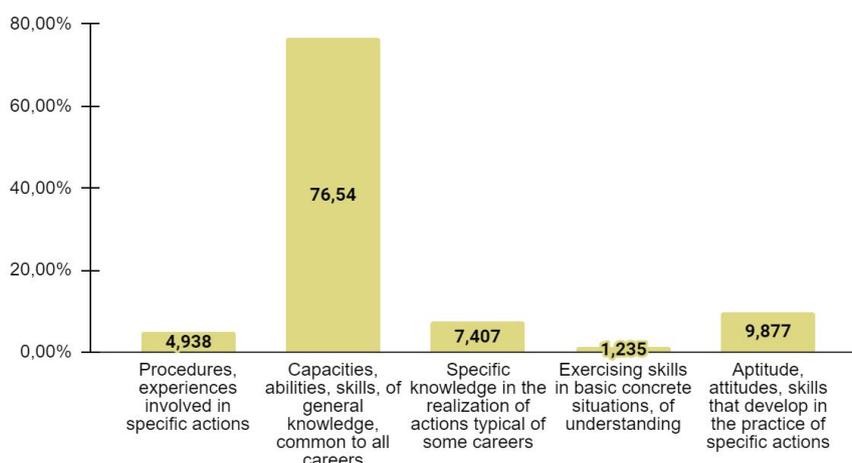


Figure 1 How Do You Define Transversal Professional Competence

In the Faculty of Higher Studies of Aragon of the UNAM, 62 students (76.5%) are correct in the definition of transversal professional competences, such as capacities, abilities, skills, of general knowledge common to all careers; the level is of achievement. 8 answered that they are the attitudes, aptitude, skills that are developed in the practice of specific actions, 9.9%; the sense of development is not exclusive to transversal competences, it is a characteristic of competencies. 6 indicate that they are the specific knowledge in the performance of actions typical of some careers.

It is evidenced that more than 60% of the surveyed students consider that interactive professional competence is observed in carrying out the research work in a multidisciplinary team, while for 2.3% it is in the realization of the professional report.

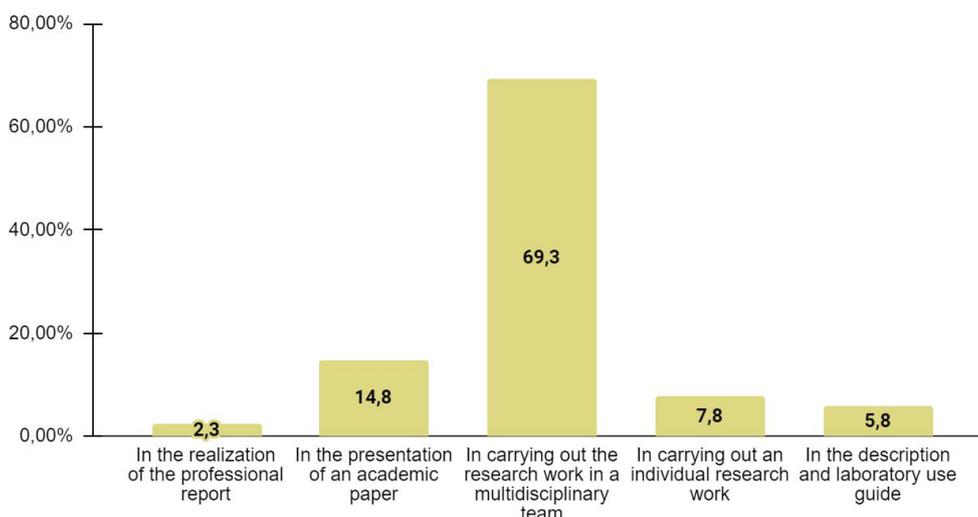


Figure 2 In Which of This Options Interactive Professional Competence Is Observed?
Source: UNMSM.

57 students are right, 70.4% interactive professional competence is observed in multidisciplinary team research work; the level is of achievement. 9 consider in the presentation of an academic paper, 11.1%, is more limited in time and procedure. In the realization of the professional report 6, 7.4%. Description and laboratory use guide, 3 students, 3.7%.

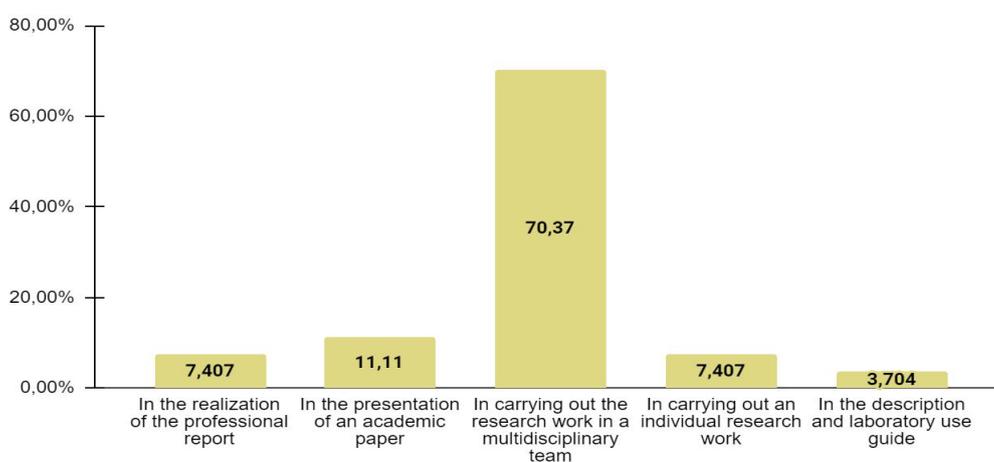


Figure 3 In Which if This Options Interactive Professional Competence Is Observed?
Source: UNAM.

We observe that 49.8% of the surveyed students consider that the transversal professional competences that the professional profile of their career presupposes new educational products are multidisciplinary teamwork, research, use of ICT, innovation, didactics; while for 8.9% they are creativity, use of information, self-learning, self-regulation; also for 15.6% they are decision making, metacognition, use of ICT and contextualization.

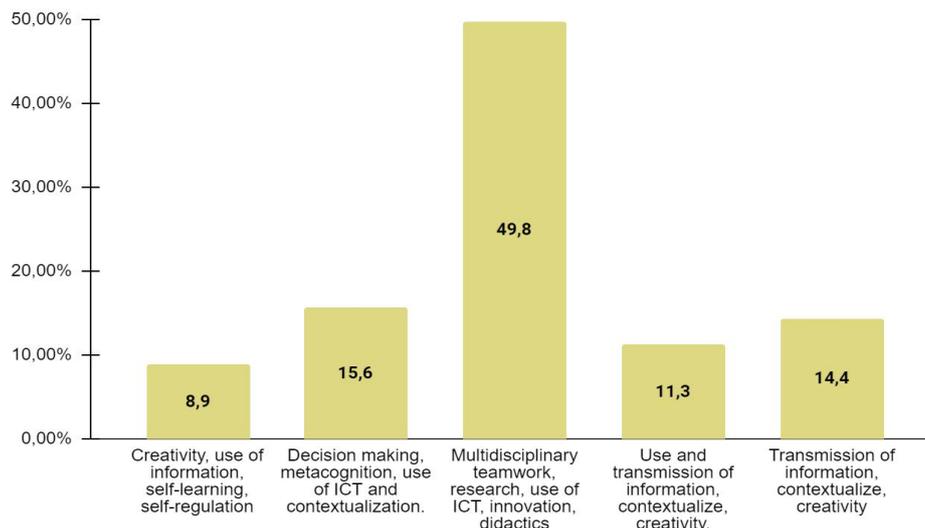


Figure 4 What Are the Transversal Professional Competencies That the Profile of Your Career Presupposes New Educational Products?

Source: UNMSM

The success of 60 students is observed when answering about the transversal professional competences that the profile of their career presupposes new educational products are: multidisciplinary teamwork, research, use of ICT, innovation, didactics; 74.1%; the level is of achievement. Decision making, metacognition, use of ICT, contextualization, 8 students, dispenses with the competences that all careers develop, 9.9%., research, teamwork, innovation. For 5 they are: creativity, use of information, self-learning, self-regulation, 6.2%. 4 indicate that they are: use and transmission of information, contextualize, creativity, 4.9%. Another 4 answered: transmission of information, self-learning, decision-making, creativity, 4.9%.

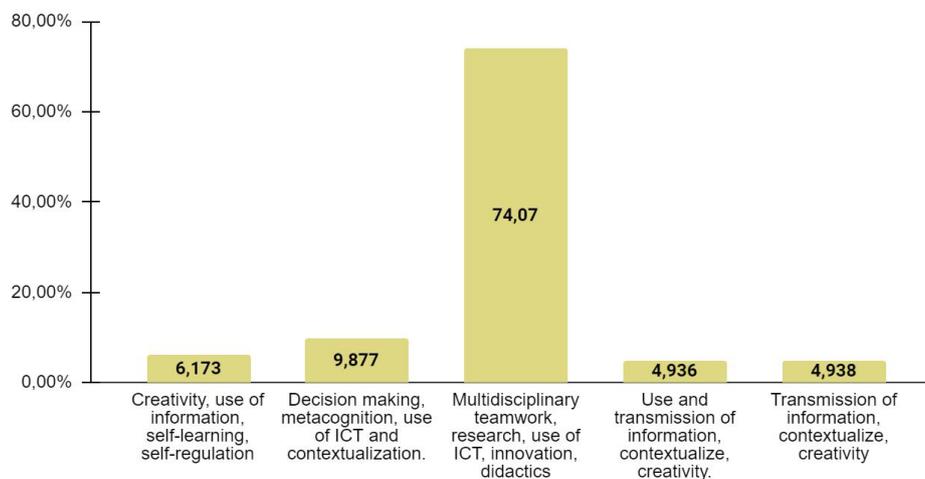


Figure 5 What Are the Transversal Professional Competencies That the Profile of Your Career Presupposes New Educational Products?

Source: UNAM

4. Discussion and Conclusions

It is evident that the level of mastery of the transversal professional competences in both samples is heterogeneous with a predominant tendency of achievement, which means the similarity of the result and the difference in the percentages achieved. 66.6% is an achievement level, 25% intermediate and 8.3% start level, similar results in the students of the UNMSM and the UNAM, which corroborates the hypothesis.

The level of conceptual mastery of the transversal professional competences is achieved in both samples (61.87%) UNMSM and (76.5%) UNAM. Conceptual knowledge differs in the percentage achieved. The evaluation shows that this knowledge exists.

The UNAM reaches a higher percentage in the achievement items compared to the UNMSM, however, in the intermediate items the percentage of correct answers is higher in the UNMSM than in the UNAM. Innovation is not considered as a necessary professional competence in the career, both samples show a starting level of 9.73% and 14.8%.

Interactive professional competence is observed in the realization of the research work in the multidisciplinary team 69, 26% UNMSM and 70, 4% UNAM, the level is of achievement

The transversal professional competences that the career profile presupposes new educational products are multidisciplinary teamwork, research, use of ICT, innovation, didactics 49, 81% UNMSM and 74.1% UNAM. In this way, the level of achievement is observed, in the difference of the percentages achieved in both samples.

Multidisciplinary research teamwork achieves innovation because it applies interactive strategies, research methods and ICT in the production of knowledge 45.14% and 74.1%, the level is of achievement.

There are common professional profile features in the careers of both Universities, although the characteristics of the UNAM profile are presented in a general way as designing, executing and developing academic training and job updating projects, explaining and proposing solutions to specific educational problems in the society and give pedagogical advice in research and studies. So the transversal professional competencies of the present are implicit.

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