



METHODOLOGIES THAT FAVOR THE CONSTRUCTION OF KNOWLEDGE

¹OSCAR ORLANDO MARTÍNEZ LADINO, ²LUGO MANUEL BARBOSA GUERRERO, ³JAIRO JAMITH PALACIOS ROZO

¹Candidato a Doctor en Administración Universidad de Celaya
Docente de planta de la Universidad Colegio Mayor de Cundinamarca.

oomartinez@unicolmayor.edu.co

<https://orcid.org/0000-0001-7532-4120>

²Universidad Colegio Mayor de Cundinamarca

lbarbosa@unicolmayor.edu.co

<https://orcid.org/0000-0002-0871-8637>

³Universidad Colegio Mayor de Cundinamarca

jjpalacios@unicolmayor.edu.co

<https://orcid.org/0000-0002-1437-9838>

Summary

This research analyzes the perception of the methodologies that students of public universities favor in the construction of knowledge from experience at the end of their curriculum. A survey is carried out with validated items, supported in a literature to carry out the collection of information, analyzing the data through simple regressions. The results obtained suggest that students prefer methodologies where the teacher proposes group work, having a positive and significant effect towards the development of new skills. This project allows to advance in the knowledge of methodologies which allows to improve the competitiveness towards the immersion of the working life.

Keywords: Knowledge construction, methodology, students, competence.

INTRODUCTION

The methodologies applied by teachers are fundamental in students because it facilitates the construction of knowledge as a result of the teaching-learning processes, teachers introduce methodologies in their classes, but without verifying that these favor the construction of students' knowledge, managing to integrate know-how with know-how from the reflection on the use of active methodologies and technological resources in the classroom, students build knowledge and practical experiences that can contribute to the adaptation of teaching methods for students' learning style and also for social demands (Bispo and Lodi, 2022). Organizational learning is related to the development of new knowledge based on actions and behaviors in the organization and previous experiences (Lenart-Gansiniec et al., 2022). The teacher must be cautious when using a certain methodology in their teaching-learning process because there are some that are a challenge or that students are the protagonists such as the tools of virtual learning environments.

The construction of knowledge, the generation of proposals that allow radical changes within educational spaces in the way we teach and learn, represents for the teacher who leads this process one of the greatest challenges (Roa-Banquez and Romero-Gómez, 2009). A precise selection of the methodology chosen by the teacher becomes a very useful tool that facilitates the transfer of their knowledge to their students helping the construction of knowledge, teachers who work in Higher Education Institutions (IES) in their vast majority have not had training in pedagogical issues (Ibáñez Coronado and Villasana López, 2022). The educational systems present different results depending on the methodologies applied by teachers and the mastery of these in the case of the Universidad Colegio Mayor de Cundinamarca when presenting a level in terms of competencies to face working life.

Likewise, the increase in the use of ICT in education has been positioning itself as an important tool in the teaching-learning process facilitating the construction of knowledge in a context marked by the growing integration of ICT in teaching-learning practices as it is common that students



increasingly involve the construction of their knowledge by actively participating, thanks to the numerous digital tools available to them (Valdivia Yábar, 2022). Currently, higher education institutions continue to use outdated teaching models by not responding to the requirements of society, being the teacher of this century in charge of accompanying their students in the process of building their knowledge (Cruz Huapaya et al., 2022). In this sense, it is proposed to analyze the methodologies that students have in the construction of knowledge in an administration program. Most of the studies have dealt with the issue of the use of different methodologies analyzing how they are supported with technological tools, in addition to the skills that are acquired by students in terms of the analysis of methodologies that favor the construction of knowledge. The motivational climate of the classroom not only depends on the students, but also on the interventions of the teaching staff as a consequence, the way to create an adequate climate in their classrooms and modify what is necessary to motivate their students must be considered (Corrales-Perea and Espada, 2022). Digital technologies were effectively implemented to support student autonomy and collaborative activities while maintaining the quality of learning (Kummer, 2022). To understand how learning occurs at different times of human development and how this disrupts the way they understand and socialize in their environment and their daily lives, it is essential to know the theories that have been developed about the cognitive processes of the human being (Ochoa-López et al., 2022). The experiential knowledge built in the practice centers expresses the capacity for decision and autonomy, the search for solutions for practice situations, know-how, know-how fundamental in the professionalism of teaching (Graça et al., 2022). This new reality requires a reconversion of traditional educational roles based on strategies that allow access and management of information through active and innovative methodologies marked by the predominance of digital (Leiva et al., 2022). Regarding the pedagogical dimension, the use of teaching styles to promote students' autonomy and responsibility was enhanced, observing a tendency to use active methodologies that promote self-regulation of learning (Monguillot et al., 2022).

A society that promotes mass access to information requires people who have the ability to convert this information into knowledge through its analysis and interpretation (Serrano García, 2022). The student will begin to demand greater flexibility in the learning processes and a greater practicality of the teachings where the transversal skills should have a greater weight. It is not only about acquiring knowledge, but also about knowing how to use and apply it (Martín Gómez et al., 2022). Teachers at any level of the educational structure, in addition to imparting knowledge, must transmit it effectively, using all the communication and information tools that institutions provide them (Taborda-Hernández, 2022). The teacher uses ICT to create, express ideas and collectively build new knowledge, adapts and combines technological tools to design learning environments (Velasco Burgos, 2022). The success of the implementation of a methodology that involves online teaching depends on the ability of the student to manage his learning process and his motivation with it (Eom SB, Wen HJ, Ashill N., 2006, as cited in Muñoz et al., 2020). It is necessary to explore new teaching methodologies that enrich creativity in the student in turn allow the teacher to potentiate their pedagogical work with new educational scenarios (Bacca-Pachón and Sierra-Castro, 2022).

METHODOLOGY

For this research, the total population of 145 students in the second academic period of 2022 was taken into account, a total of three courses (Groups A, B and C). The groups had the following number of students: 1) Group A: 55 students. 2) Group B: 46 students. 3) Group C: 44 students, the three groups of students were asked to participate in the completion of the information collection instrument, it was carried out controlling compliance with 100% participation, obtaining the information from table 1, with participation percentages of 57.93% of women and 42.07% of men.

Table 1. Participation by gender.

Group	Women	Men	Total
To	34	21	55
B	24	22	46
C	26	18	44
Total	84	61	145



The 145 students belong to the commercial business administration program of the faculty of administration and economics of the public university Colegio Mayor de Cundinamarca, located in the city of Bogotá, Colombia - Latin America, where they study during the day and night and more than 90% work in companies located in the city or in municipalities very close to it. There are some difficulties to attend classes that are face-to-face such as arriving late because of the traffic of the city, or for working very far from the university. The other 10% either work as freelancers or at the time of the implementation of the instrument were not working for different reasons. In the design of the instrument, questions were asked about gender, marital status, employment status and age, obtaining information to strengthen the results of the research. The students were visited in the classrooms by the research professors where, with the authorization of the teacher of each class, the instrument was applied, different visits were made until completing the 145 instruments completed. The next phase was the digitization of the information, then the realization of the analysis, classifying the answers to take into account the percentages of selection by the students, finding percentages of participation. The research methodology had a quantitative approach through the application model of the survey-type instrument, with semi-structured questions (giving time for research professors to prepare and analyze the questions to be asked), as defined by Hernández, Fernández and Baptista (2014), where the set of questions based on the variables to be measured is described.

Results and discussion

The results obtained show that the information collected by the research professors that of the total number of students who completed the instrument, 57.93% were women and 42.07% men as shown in Figure 1, where it can be inferred that out of every 100 students, 58 are women, having a higher percentage of people who wish to study with respect to men. Despite being a night program where you must study in person after a day of work, making it clear that they are students with different characteristics to day students, among those characteristics is that they already have an experience in their working life, in addition to depending economically on them.

Table 1. Percentage of students by gender

Gender	Percentage (%)
Women	57,93%
Men	42,07%

Likewise, it has that all students surveyed 91.03% are people who are employed with characteristics of not depending economically on other people, but on the contrary are independent in this sense with a percentage of 62% with people in charge these results allows to know that the information obtained are valid data that contributes to reach the methodologies that favor the construction of knowledge due to work experience, where they have the opportunity to build knowledge, acquiring valuable work experience and work skills.

Table 2. Percentage of students working

Condition	Percentage (%)
Employees	91,03%
Unemployed	8,97%

The students within a series of methodologies raised to indicate which ones favor the construction of knowledge, 5 were selected, where the percentages of selection by the respondents were calculated, allowing as a result: the collaborative work methodology 35% was the largest selected, because it is a methodology where each student can contribute ideas and put their experience into practice thus facilitating, the construction of knowledge. Clarifying on the part of the research professors that collaborative learning is not coordinated while cooperative work presents a coordination but is not planned and its interaction is minimal, this methodology of cooperative work was selected by 16% of respondents.



Table 3. Students who selected each methodology

Methodology selected by the student	Number of students	Percentage
Collaborative work	51	35%
Cooperative work	23	16%
Develop social skills	41	28%
Group work	19	13%
Individual work	11	28%
Total	145	100%

The development of social skills was selected by 28% of the students, where this type of social skills are learned and then developed during a strong process of interaction with other people. Social skills are specific responses, since their effectiveness depends on the specific context of the interaction and the parameters that are activated in it. They are acquired mainly through learning, incidentally or as a result of specific training (Tapia-Gutiérrez et al., 2017). Likewise, 28% of the students surveyed accept the methodology of individual work, this is influenced by students who prefer to work individually because it is difficult for them to take time to carry out a meeting with their other classmates, because many have to work on Saturdays.

CONCLUSIONS


The methodologies that students prefer are those that develop the social part, integration with peers, group work, also, this is greatly influenced by being in a large percentage working, which allows them to see the situation from another point of view totally different from the one that may have students of a day day who do not work but dedicate all their time to study, In this way, the research professors will be in charge of socializing all the professors of the Commercial Business Administration program of the University.

We identified the methodologies that students prefer because it facilitates the construction of knowledge such as preferences for collaborative work and group work with a high percentage on the selection of individual work but this is selected more by elements external to the study such as working hours to be extensive and the lack of time they may have in some jobs. It is recommended that teachers, coordinators and directors know and analyze the results in order to make the necessary changes in the delivery of their thematic components and facilitate the construction of knowledge in students and at the same time they feel comfortable in the different subjects they enroll in each semester, this will result in better professional preparation and high academic performance.

It is also essential that training on the use of different methodologies be carried out to the teachers of the program, so that they can apply them and make changes that perhaps they have thought about making but due to lack of knowledge of the methodologies with which students feel more comfortable, they feel a little afraid to implement due to the lack of mastery of these.

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