

Collaborative work in university students

Jairo Jamith Palacios Rozo

Magíster en Educación

Doctorando en Socioformación y Sociedad del Conocimiento – CIFE

Docente de Planta de la Universidad Colegio Mayor de Cundinamarca

jjpalacios@unicolmayor.edu.co; <https://orcid.org/0000-0002-1437-9838>

Lugo Manuel Barbosa Guerrero

Magíster en informática Educativa

Doctorando en Administración- DBA – Universidad de la Salle

Docente de planta de la Universidad Colegio Mayor de Cundinamarca

lmbarbosa@unicolmayor.edu.co; <https://orcid.org/0000-0002-0871-8637>

Oscar Orlando Martínez Ladino

PhD candidato 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>

Abstract

Although there is progress regarding practices that can improve learning by having interaction between students or the lack of knowledge regarding the advantages offered by university collaborative work. The purpose of the present study was to explore the students thinking in the business administration program at a public university regarding the advantages that collaborative work offers. The results are shown in frequency tables according to descriptive statistics, marital status, gender and perception of the topic. Descriptive analysis showed that advantages include improvements in relationships, social skills, critical thinking, self-esteem, confidence, and commitment. It concludes with the existence of different personalities when combined with perspectives that will end up strengthening creativity.

Keywords: Collaborative work, learning, thinking development.

Introduction

This project focuses on analyzing the benefits that these practices bring to students at all levels of academic performance. It seeks to employ an active methodology maintaining the pedagogical principles of cooperation, collaborative and autonomous work and promoting critical reflection through the exchange of ideas that encouraged discussion on the topics (Palomares-Ruiz et al., 2020). The web has given strength to the entire social part, creating a culture that makes it easy to transmit information quickly and at the same time strengthening collaboration between users through a design focused on the needs of each one.

Collaborative learning has been the subject of great interest in the field of educational research, promoting the carrying out of numerous studies that emphasize the potential of the collaborative process in student learning,

knowledge acquisition, the development of certain skills and improving school results (Casillas Martín et. al, 2017). It must be taken into account that collaborative work generates skills in students, so it is convenient to prepare a test with which both individual and group skills can be evaluated and these results can be compared. When using the collaborative model, it is important that the evaluation occurs both individually and in groups to measure individual abilities and skills, as well as the ability to work in a group (Hanson and Deluliis, 2015). The ability to share knowledge, collaborate on projects, and connect with other students through online platforms has fundamentally changed the learning way.

Collaborative work can also be strengthened with research seedbeds, from there, skills can be generated for students, thus improving their ability to produce innovative products or processes. Without a doubt, the collaborative development of production-study-research is an inevitable option to improve the innovation capacity of universities and carry out a connotative development so the construction of these two mechanisms plays an important role (Qiu and Liu, 2018). Collaborative work is necessary because it generates skills in future professionals that companies require to face globalization where competition is stronger every day. Companies will hardly be able to compete if these new professionals are strong in collaborative work and higher-order thinking for this modern work. Likewise, it is required along with collaborative work that technology be incorporated. Additionally, this project seeks to provide a solid foundation for future discussions and decisions related to the integration of collaborative work strategies and social media in educational environments. Understanding its advantages and challenges is essential to improve the education quality in the digital age and adapt it to the changing needs of students.

Collaboration in education is based on the idea that learning is beneficial when students work together to solve problems, create projects, and acquire knowledge. While Facebook has the potential to promote collaborative learning and student interaction, traditional university online learning environments, such as learning management systems (LMS), deny such action through their closed system format (Wang et al., 2012). There is strong evidence that collaborative learning is beneficial for educational development. By participating in collaborative activities, students use each other's perspectives and experiences to solve problems and develop a shared understanding of meaning (Rutherford, 2014). Collaborative learning: theory, strategies and educational benefits. Collaborative learning: theory, strategies and educational benefits. Pp. 1-297. Use of social platforms such as WhatsApp, Facebook, Slack and others allow interaction and exchange of experiences and interests in the web and are valuable for collaborative learning through constant Internet connectivity (Ezequiel Makhoere et al, 2020). Over the past two decades, social media appears to have influenced the way education is delivered in academic institutions and beyond the walls of the classroom (Faizi and Fkihi, 2016). Social networks are an important part of academic life, impacting the way in which students relate to each other. Technological innovation and increased use of the Internet for e-learning by students of higher education institutions has brought revolutionary changes in the communication pattern (Ansari and Khan, 2020). Teachers must understand how these social networks influence the lives of students, and take advantage of them to strengthen the teaching and learning process.

Methodology

This study aimed to investigate how students view collaborative work in classroom with the help of the Web or also know as the social web, within this investigation, we can know that advantages can be present. Because the information was collected through a survey designed in Google Forms and applied to management students, it was analyzed by the teachers, then statistical formulas were applied integrating qualitative research with quantitative research. In the survey design, questions are taken into account to collect information on age, gender, marital status and employment status among other variables. In the second part of the survey, the possible advantages were specified with the aim of responding to the study. Finally, it was decided to apply the online survey to evaluate the perceptions and experiences of the students in relation to collaborative work and the social web, and in this way make it easier for them to complete it, without the need to travel to the university facilities.

Sample Selection: Non-probabilistic sampling is chosen for convenience, allowing teachers easy access to selected students, in addition to having their availability to answer the survey, therefore, the sample was decided by convenience of students, selected due to their accessibility and availability.

Results

The data collected was analyzed by designing formulas to calculate the selection percentages of each of the proposed advantages, with this, the different figures were proposed that allow us to see the behavior visually, the table shows the demographic information of the students who participated in the sample, the frequency table according to their descriptive statistics according to marital status and gender.

Table 1. Descriptive statistics – Frequency by gender and marital status of the student

Frequency by student gender						
Student Status	Marital	Student gender	Frequency	Percent	Valid Percent	Cumulative Percent
Married		Female	2	66.667	66.667	66.667
		Male	1	33.333	33.333	100.000
		Missing	0	0.000		
		Total	3	100.000		
Single		Female	37	59.677	59.677	59.677
		Male	25	40.323	40.323	100.000
		Missing	0	0.000		
		Total	62	100.000		
Free Union		Female	7	77.778	77.778	77.778
		Male	2	22.222	22.222	100.000
		Missing	0	0.000		
		Total	9	100.000		
Widowed		Female	1	100.000	100.000	100.000
		Male	0	0.000	0.000	100.000
		Missing	0	0.000		
		Total	1	100.000		

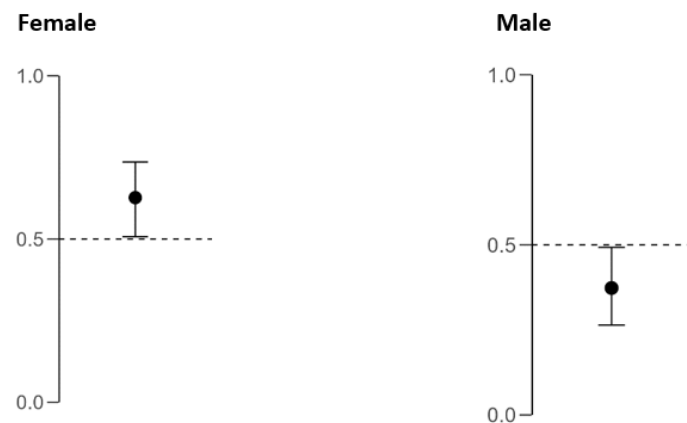
Taken based on, J. B. S. (1932). A note on inverse probability. Mathematical Proceedings of the Cambridge Philosophical Society, 28, 55-61. Jeffreys, H. (1961). Theory of Probability. Oxford, Oxford University Press. O'Hagan, A., & Forster, J. (2004). Kendall's advanced theory of statistics vol. 2B: Bayesian inference (2nd ed.). London: Arnold.

Table 2 shows how gender was distributed by percentage within the students of the administration program who participated in the sample, with the female gender having a greater participation, reaching (63%) percent.

Table 2. Test binomial bayesiano

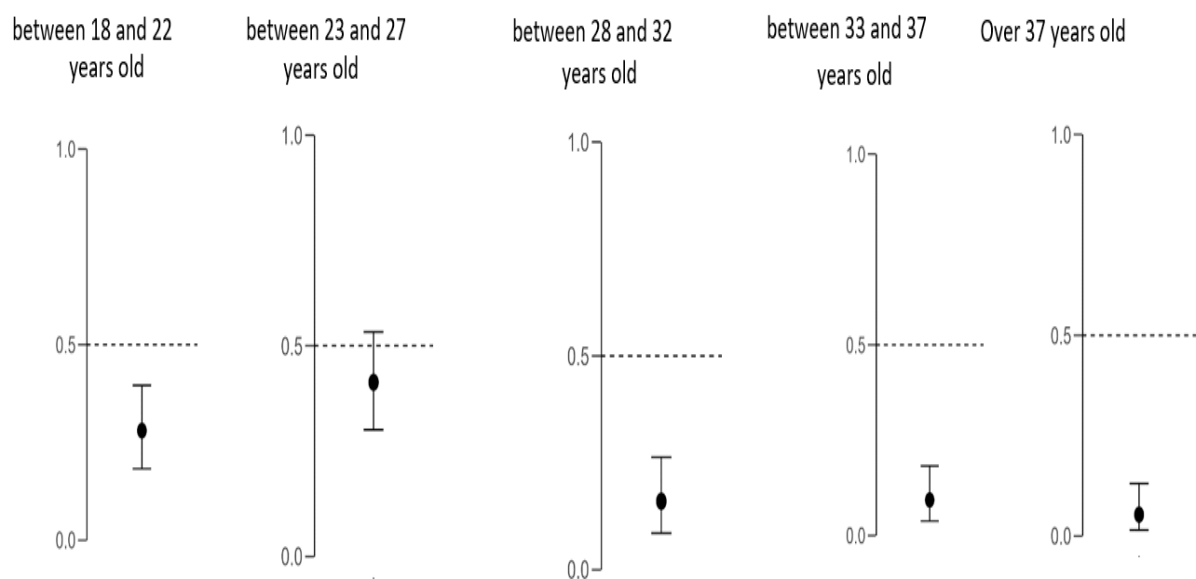
	Level	Counts	Total	Proportion	BF ₁₀
Student Gender	Female	47	75	0.627	1.580
	Male	28	75	0.373	1.580

Figure 1 Distribution of management students by gender.



The figure shows how the age range of the students was distributed, having a very close percentage of students with ages in the “between 18 and 22” age group, which is where the university has the most students and added to the “between 23 and 27” age group, the program is presented this age frequency because it is a program with more than 69% with students between these two age ranges.

Figure 2. Distribution percentages of management students by age range.



The advantages that had a selection by the administration students that the professors defined as the group of the main advantages because they were the most selected by the students, you can see the percentages of participation obtained by each of the advantages that students think provides collaborative work and the use of the social web. The findings revealed that the students selected three advantages as those they feel are the most presented, which are the improvement of interpersonal relationships with 18%, the development of social skills with 19% and also, the development of the thinking is encouraged with 15%, the table 2 shows the percentages obtained by the skills selected by the students.

Table 3. Advantages of working in a group

ADVANTAGES	PERCENTAGES
Improves interpersonal relationships	18%
Increases satisfaction with one's own work	6%
Develop social skills	19%
Increases self-esteem and group integration	7%
Encourages the development of thinking	15%
Others are valued	7%
Create trust	10%
Encourage commitment	17%
TOTAL	100%

It provides an overview of the benefits of the activity or program, with a focus on aspects such as interpersonal relationships, social skills, critical thinking and commitment. These results can be useful in making informed decisions about the implementation of the activity or program. The total is shown in percentages, which represent the distribution of the advantages obtained from the activity or program. This information is valuable to understand which aspects are most relevant and can help in making decisions related to the implementation or participation in said activity. Advantages include improvements in relationships, social skills, critical thinking, self-esteem, confidence and commitment.

Conclusions

This study leaves a series of advantages that the students of an administration program indicate are those that are generated or strengthened when teachers allow group work, which are strengthened with the use of tools that belong to the web and those that help them in their professional training and likewise in their work life. Therefore, this study will allow all the professors of the commercial business administration program at the public university Colegio Mayor de Cundinamarca to socialize with the objective that they can appreciate what their students think and the professors can make the decision to increase the collaborative work assisted through the web in the activities that students must present in their subjects.

Collaborative work will allow students to develop social skills due to teamwork and working with web tools such as Blogger, Google Drive, Facebook itself, among others, hence teachers will also have to be updated in those new tools that technological advances bring every year.

Technological advances facilitate collaborative work as well as communication in relation to facilitating the student's exchange of information, especially in relation to remote work. Therefore, an advantage that was not taken into account by the students is the improvement of communication skills. In addition, creative thinking is encouraged because among students there will always be different types of personalities that by combining the students' perspectives will end up strengthening creativity.

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