

EDUCATECONCIENCIA.

Volume 30, No. 37 E-ISSN: 2683-2836 ISSN: 2007-6347

Period: October-December 2022

Tepic, Nayarit. México

P. 249-265

Doi: https://doi.org/10.58299/edu.v30i37.593

Received: 22 september 2022 Approved: 20 december 2022 Published: 20 december 2022

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# Factors influencing virtual teamwork in a Business School Factores que influyen en el trabajo en equipo virtual en una escuela de negocios

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#### Resumen

El objetivo de este estudio es determinar los factores que influyen en el trabajo en equipo virtual, desde la percepción de estudiantes universitarios. El enfoque es cuantitativo, de cohorte transversal y el tipo de investigación es no experimental. Se diseñó un instrumento en escala de Likert que cumplió con los criterios de confiabilidad, obteniendo valores superiores a 0.7 en cada una de las variables. Respecto a la validez del instrumento, este se elaboró mediante una revisión exhaustiva y sistemática de la literatura, adaptando los ítems de cada variable y solicitando a expertos en el área la revisión de este. El instrumento se aplicó a una muestra aleatoria de 459 estudiantes de una universidad del norte de México. El análisis de regresión lineal múltiple encontró que las variables comunicación y coordinación virtual tienen una relación significativa con la variable dependiente trabajo en equipo virtual a excepción de la variable apoyo mutuo.

**Palabras clave:** Comunicación; Desarrollo de Habilidades; Regresión Lineal Múltiple; Trabajo en Equipo;

#### **Abstract**

The objective of this study is to determine the factors that influence virtual teamwork, from the perception of university students. The approach is quantitative, cross-sectional cohort and the type of research is non-experimental. A Likert scale instrument was designed that met the reliability criteria, obtaining values greater than 0.7 in each of the variables. Regarding the validity of the instrument, it was developed through an exhaustive and systematic review of the literature, adapting the items of each variable and asking experts in the area to review it. The instrument was applied to a random sample of 459 students from a university in northern Mexico. The multiple linear regression analysis found that the virtual communication and

EDUCATECONCIENCIA Magazine. Vol.30, No.37 Quarterly publication October- December 2022 https://doi.org/10.58299/edu.v30i37.593

coordination variables have a significant relationship with the virtual teamwork dependent variable, except for the mutual support variable.

**Keywords:** Communication; Skills Development; Multiple Linear Regression; Teamwork;

#### Introduction

Nowadays, it can be said that the ability to solve problems and propose better solutions, it is better developed in teams, it is here where the union of the skills of each member is obtained, forming concrete knowledge. It can be noted that teamwork has different environments, both virtual and face-to-face, with key factors involved in this concept, as well as communication, coordination, and mutual work, which are part of these two environments.

The comparison that can be obtained from these two ways of teamwork, it has the same objective due to the same performance, it is to be achieved by the members regardless of where they are. According to Mercader et al. (2021) the term of teamwork is having the ability to commit to the actions to be carried out with a group of people to achieve a jointly established goal, reducing risk and increasing return in terms of time, cost, and quality, feeling satisfaction, commitment and pride belonging to the team.

In a certain way, a great teamwork gives a tool for be able to reach the objective set, it is important to mention, that this term do not means just to share tasks, instead, it is a needed of a integration that practices communication and the joint work with the help of the members motivation, Goñi *et al.* (2020).

#### **Problematic situation**

The face-to-face environment has a great advantage by having greater visibility to the loss of talent, lack of confidence or leadership problems, when detecting any of these negative points it is more agile to use strategies so that the team becomes more effective, in this way the member is known more in depth, another advantage is the confidence of expression that exists in the team to give their opinion or share the information they have, the ice is broken and for the most part the differences in social position are not marked.

The role of leader that develops in this environment is fundamental, since he should know what each one can do and put one's knowledge in everyone. Mercader *et al.*, (2021), defined leadership as the art of reach business and individual goals, establish as the collaboration with people and the teams, applying intellectual strategies and the needed ethics that benefits different environments such as social, individual, and business-related.

At the beginning of 2020, due to the COVID-19 contingency, the way of working changed, the need to use the home office arose, for many people it could be comfortable, however, a large part of individuals did not have the same ease of adaptation. Despite the contingency, many employees were able to demonstrate a good workforce in productivity from home, so teamwork became a main element for the structures of different organizations to flow positively, you can see how this situation marked a before and after in the lives of employees and students. (Davidavičiene *et al.*, 2020).

It is well demonstrated by Garro-Abarca *et al.* (2021), saying that the virtualization of organizational life and the digital transformation of labor relations go hand in hand with the accelerated development of technologies such as cloud computing, which means that corporate offices no longer need physical servers, infrastructure of software and hardware, and companies and many processes are increasingly connected through fast internet network access on personal devices or terminals.

For this reason, the following study of teamwork in virtual and face-to-face environments determines which factors influences in a positive way, at the time of practice and implementation, when it is applying at the university and in its work area. This research seeks to explore teamwork as a fundamental element, to achieve collaborative goals effectively, whether in a company or at the university.

#### **Background**

Virtual teams give organizations a competitive advantage by enabling them to recruit talent from around the world and cut the need for physical office availability. However, a major problem hindering virtual team productivity is knowledge sharing. Lack of proper knowledge sharing among team members can cause organizations to fail when it comes to implementing successful strategies. One of the most important competitive advantages are the intellectual one that can be created, shared and disseminated among team members.

It is especially relevant for dispersed teams whose members come from different backgrounds and cultures and have different points of view.

### Virtual teamwork (Y)

Nowadays, teamwork works as one of the most important tools that can be found in any type of organization, one of the approaches that teamwork has is the virtual environment, now it is more common to hear this term, instead, it is more difficult to control than traditional work teams, so a leader would be a fundamental factor for the virtual team to be successful, that's how it is mentioned by Flavian *et al.*, (2019) that said studying different behaviors that were related to the success of a work team in a virtual environment. Factors such as building trust have a strong relation with leadership, having as a result, greater efficiency in the team, improving the compensation of internal processes maximizing the possibilities of working on the computer. (Flavian *et al.*, 2019).

In addition to this, Garro-Abarca *et al.* (2021) mentioned that trust and communication are key pieces for a better performance in virtual work team, also, through a study confirmed that the variable with the greatest significance is the trust due to, it has more influences with the improvement in trust with members of the team, in the same way communicates that the leader of a virtual team should use a style that builds trust, such as mediating factors in the indirect effect that it has on performance. One of the determining factors were the characteristics of the task and the positive influence on communication of the members of the virtual team. The virtual teams are highly dependent on the communication technologies to coordinate their work. Thus, the relationship between the nature of the task and the effectiveness of the communication to find its subsequent impact on computer performance. (Garro-Abarca *et al.*, 2021)

### Communication $(X_1)$

Communication refers to a process of information transmission between agents that share a set of signs and semiotic rules (syntactic, pragmatic, and semantic), whose purpose lies in the construction of meaning. Besides, communicative competence at teamwork can be understood as the ability to find and use networks decentralized to promote communication, as well as use communication following as many open and supportive techniques, or to adequately capture the non-verbal messages of other individuals (Stevens & Campion, 1999).

For Mercader *et al.* (2021), communication is effective when it is represented as the ability to analyze and make ourselves understood in any environment or situation that arises in such a way that it is resolved effectively and where the fact of win-win for the parties involved is manifested, what it means is that the message sent by the sender is understandable by the receiver so that the act of communication can be understood.

On the other hand, Lemon (2019), mentions internal communication, interacting with the members to keep them informed about the plans, the vision and the ideas that they want to achieve, also encourages them to participate in the decision-making processes. decisions, as well as promotes feedback and communication between peers. Effective internal communication requires a combination of multiple channels, numerous speakers, and cross-acknowledgment to reinforce or confirm understanding of information to motivate people to act. The ultimate goal of an internal communication system is to help teams stay oriented toward achieving business goals, which means they can work in a clear, complementary, and focused manner.

Likewise, internal communication is known as part of the management process, which is shared, collects and distributes information to ensure that those involved understand the goals and objectives of the organization. (Smaliukiené & Survilas, 2018), Specially, this type of communication is a fundamental part of a team work, given that should be practiced among the members, in this way conflicts are avoided, doubts are cleared and knowledge or ideas are shared by acting as complements between them members.

The leader's communication is one of the fundamental pillars of the proper functioning of any work team at a collective and individual level, a good team leader without this ability exhibits incomplete leadership because the information does not reach where it is supposed to go, and a leader who communicates effectively must know how and when to communicate. Also, you need to know how to redirect your presentation to each team member to be successful, according to Alyammahi (2020), the communication is the fundamental tool in the workplace. Therefore, the need for its effectiveness and balance to increase productivity.

In addition. Goñi *et al.* (2020) demonstrated by a study comparing two generation of student of the same course in different modalities, one face-to-face and other online, where different attributes were involved, including, communication and teamwork.

The results of this study contrast with previous research on the subject that reported less student satisfaction, causing more communication challenges in the online teamwork. This may indicate that the adaptation towards digitized life it is not just an online course, it also plays an important role as a mediator between online learning, the results of teamwork would be based on the performance of the satisfaction of each student.

### Coordination $(X_2)$

The coordination in work teams is an emerging phenomenon that involves the use of strategies and behaviour guidelines aimed at the integration and alignment of actions, knowledge and objective of interdependent members in order to achieve common objectives, (Malones & Crowston, 1994). It is important to know the planned goals, the work team through coordination can execute various activities to the achievement of these objectives by doing so through the most compatible strategies with the team of worked. This series of actions with their respective methods to be carried out is known as coordination in teamwork.

It is understood for coordination in teamwork as the management action of tasks performed by separate actors to achieve a common goal. It is an important issue for operations management, particularly given the increasing number of activities business organized in teams, for example, in highly interdependent tasks, to complete a task successfully, team members must coordinate their actions and share the information continuously the information. In such cases, the explicit coordination could lead to team members to spend too much time and energy coordinating instead of do the job. Therefore, implicit coordination is likely to have a greater effect positive on team performance when teams perform highly interdependent tasks. (Stefanini *et al.*, 2020).

Previously, coordination was considered similar to collaboration in the sense of that both required some shared responsibility between individuals and clarity of functions, tasks and objectives. It can be said that in the absence of coordination or a failure in the identification of its objectives, negative results can be obtained in teamwork since there will be a bad productivity, being one of the main causes of labour disputes (Reeves *et al.*, 2018).

Finally, Carmichael *et al.* (2019), determined that, by implementing objectives and goals in a group, improvements are obtained in attitudes related to coordination and better performance in the work team. Through the implementation of small non-monetary incentives, members make more effort to meet the established goals, in the same way, when combining this set, it expresses a mechanism to improve the effectiveness of member performance, developing compliance patterns or strategies. Through this method, a sense of collective responsibility and solidarity is generated in the team by emphasizing the value of teamwork, jointly setting up a commitment. Likewise, these researchers achieved better results in work teams through motivation to lead to more effective communication among members.

### **Mutual support (X3)**

According to Khademian *et al.* (2018), refers to mutual support as a situation where members must help their pairs in stressful situation with higher risk of human error to promote team performance. That term works like a tool, when members develop a plan cooperatively providing a sense of support and encouragement in the process of completing a job or an assignment activity It is here where communication is essential, so that among the members of the team occur solidarity, getting motivation between each other to get closer the goal that members have in common.

To have a support team helps participants to trust to their teammates. It is important to mention that team members are not only a source of support but also help each other with a critical thinking and decision making. The team members give advice when it is necessary, requesting support with the team leader when important steps are missed. In an emergency, each team member may have a positive contribution that could be of great benefit to the team and the emergency. In this sense, the participants can demonstrate a sense of serenity and respect towards the team leader to recognize and value other members (Ntlokonkulu *et al.*, 2018).

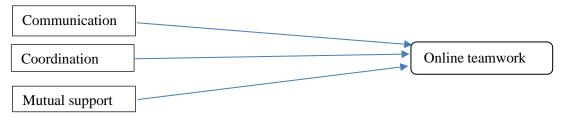
On the other hand, mutual support is defined as providing feedback and guidance to improve performance or when a slip is detected, it help teammates perform a task and complete it for the team member when he is overloaded with work, it is also shown in how everything is possible together, showing how selfishness does not have a cavity in this term which give other the opportunity to advance at the same pace as others. When this action occurs, all team members benefit, mainly because the objective is being reached in a united and faster way because by uniting the abilities of each one, they form a solid advantage. (Baker *et al.*, 2010).

In addition, since it lacks a culture of mutual support, it stands for an individual or organizational problem, since it has been proven that less mutual support is associated with greater exhaustion. When this concept is not practiced in a work team, their opportunity to grow and fully develop their talent decreases, this action will not allow the team to move forward, so it will not be able to meet its goal, representing exhaustion and lack of motivation generating uncertainty (Haruna *et al.*, 2022).

In addition, Haruna *et al.* (2022), related the influence of mutual support with the exhaustion, finding that when a decrease in exhaustion occurs, it gives as result in less mutual support, in this case, the term of mutual support is associated as the participation of team members helping each other by providing feedbacks, exercising assertive and defensive behaviours, finally found a new teamwork system which aims to improve the quality, safety and the efficiency in the elaboration of their tasks. It was highlighted that the use of such a program to improve the mutual support system of professionals can prevent burnout for that mutual support do not be interrupted.

Figure 1 shows the hypothesized relationships of the variable considered for establish the theoretical model, which is validated with the empirical results of the field study.

**Figure 1.**Graphic model of the empirical hypotheses of the field study.



Source: Own elaboration

EDUCATECONCIENCIA Magazine. Vol.30, No.37 Quarterly publication October- December 2022 https://doi.org/10.58299/edu.v30i37.593

# **Hypothesis**

Based on an exhaustive and systematic review of the literature, it was possible to identify some factors that influence teamwork both in virtual environments. Therefore, the general hypothesis of this research is set up as follows: communication, coordination and mutual support are factors that influence teamwork in virtual environments.

H1: Communication influences virtual teamwork.

H2: coordination influences virtual teamwork.

H3: Mutual support influences virtual teamwork.

## **Objectives**

To determine the factors that influence teamwork in virtual environments, in university students. To develop new and/or improve educational programs that allow students from public universities to develop the ability to work as a team, promoting effective communication and coordinating the activities that each one will conduct according to their abilities and knowledge.

#### Method and materials

This study is of a quantitative approach, of an exploratory, descriptive type of research, correlational and explanatory. The design of this research is non-experimental, of type cross-sectional since the data was collected in a specific period. To obtain the results, descriptive statistical analyses were carried out, such as the analysis of reliability and validity of the instrument. As well as a multiple linear regression to analyse the relationship between the independent variable communication, coordination, and mutual support with the dependent variable virtual teamwork.

### **Participants**

This research was addressed to students who were doing their administration studies and business at a public university in northern Mexico, during the semester January to June 2022. To calculate the sample size, the formula was used for populations of finite size (Rosita, 2014). As seen in Figure 2. Where the total population size is 15,740 students from a public university in northern Mexico, considering a significance level of 95% with an estimated error of 5%, the minimum sample size was 457.

It is important to mention that the surveys were applied randomly.

Figure 2.

Sample calculation formula.

$$n = \frac{Ns^2}{(N-1)\left(\frac{d}{z}\right)^2 + s^2}$$

*Note:* Taken from the sample sizes in surveys of the social sciences and their impact on the generation of knowledge (p. 247), by J. Rositas Martínez, 2014, Business Innovations.

# Technique and instruments.

The instrument consists of 25 items to measure the variables, of which 5 items consist of demographic questions and 20 items on a 5-point Likert scale, where one is totally disagreed and five totally agree. The number of items used to measure each variable can be seen in Table 1, as well as the values obtained from the validity and reliability analysis for the Cronbach's alphas.

**Table 1.** *Internal consistency analysis* 

| Variable              | Items  | Cronbach's |  |  |
|-----------------------|--------|------------|--|--|
|                       | number | alpha      |  |  |
| Virtual communication | 5      | 0.905      |  |  |
| Virtual coordination  | 5      | 0.920      |  |  |
| Mutual support        | 5      | 0.903      |  |  |
| Virtual teamwork      | 5      | 0.888      |  |  |

*Note*: Analysis prepared by the authors from the pilot test.

To carry out this analysis, the SPSS software was used. Likewise, a multiple regression analysis through the method of successive steps to obtain the betas and the significance levels of each of the independent variables in relation to with the dependent variable. In the same way, the inflation factor of the variance was obtained for verify that there is no multicollinearity between the independent variable of the model resulting.

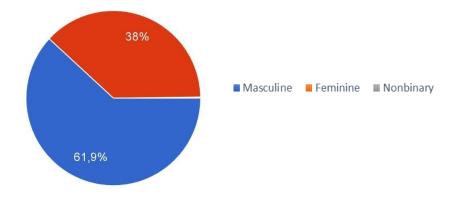
#### **Process**

For data collection in this study, the survey was applied randomly, at the first place, the profile of the respondents was determined, as well as those students who met the characteristics established for the study. At the second place, through email, the questionnaire was sent to those students selected randomly. It is important to mention that once the required sample size was obtained the form was closed to stop receiving responses. It should be mentioned that in the first part of the questionnaire the students signed a privacy notice where they agreed to provide the requested information. Once the data collection was completed, the file was downloaded with the data collected and those incomplete answers were eliminated obtaining a total of 457 survey.

### **Results and discussions**

One the various statistical analyses were completed, a descriptive analysis of demographic variables. It can be seen in figure 3 that 61.9% of the respondents are male, while 38% are female.

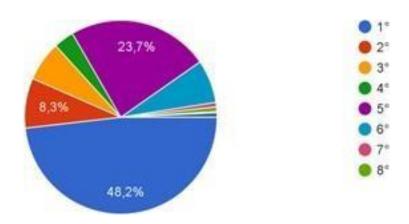
**Figure 3.** *Percentage of participants by gender.* 



*Note:* Graph prepared by the authors

Figure 4 shows that the semesters with the highest percentage of participation, for example, the first semester with 48.2%, the fifth semester with 23.7% and the second semester with 8.3%.

**Figure 4.** *Percentage of participants per semester.* 



Source: Graph prepared by the authors

# Multiple linear regression analysis

The results obtained from the multiple linear regression analysis are show in table 2. Where an R2 of 0.662 is observed, indicating that the variables largely explain the studied phenomenon.

**Table 2.** *Model summary* 

| Model | R                 | Square R | Square R corrected | Standard error of the |  |
|-------|-------------------|----------|--------------------|-----------------------|--|
|       |                   |          |                    | estimate              |  |
| 1     | .814 <sup>b</sup> | .662     | .661               | .57624336             |  |

*Note: Prepare by the autor* 

Table 3 shows that they hypotheses of the virtual communication variables (VCOM) and virtual coordination (VCOORD) do not reject except for mutual support variable (MSV). Whereas the inflection factor of the variance obtained in the analysis shows values closed to two, which means that here is no multicollinearity between the independent variables. (Hair et al., 2004).

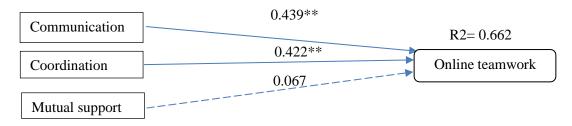
**Table 3.** *Coefficients.* 

|    | Unstandardized coefficients |      | Standardized coefficients |      |        | Statistics of collinearity |           |       |
|----|-----------------------------|------|---------------------------|------|--------|----------------------------|-----------|-------|
| Mo | odel                        | В    | Error típ.                | Beta | t      | Sig.                       | Tolerance | FIV   |
| 1  | (Constant)                  | 031  | .027                      |      | -1.124 | .262                       |           |       |
|    | X1_COMV                     | .439 | .042                      | .444 | 10.556 | .000                       | .428      | 2.336 |
|    | X2_COORDV                   | .422 | .042                      | .424 | 10.091 | .000                       | .428      | 2.336 |
|    | X3_AMV                      | .067 | .059                      | .216 | 1.238  | .216                       | 0.256     | 3.910 |

Note: Prepared by the author

Figure 5 shows the resulting model, in which it can be seen that the mutual support variable was rejected when obtaining a significance value of .216, a value too far from 0.0

**Figure 5.** *Results of the research model.* 



*Note:* \*\* demonstrates that the correlation is significant at the level of 0.01 bilateral

It is important to mention that, in previous research (Haruna et al., 2022) it has been observed a correlation between the mutual support variable and virtual teamwork. However, the results of this investigation did not present such a correlation due to two reasons, the first is that students do not have knowledge of the importance of support each other in the accomplishment of a task or project, for this reason they do not put in practice mutual support in the team, the second reason is caused the context of the study was different in terms of study subjects and geographical area.

#### Conclusion

The objective of this investigation is to determine the factors that influence virtual teamwork, which was satisfactorily fulfilled. Factors such as communication and coordination show a correlation with virtual teamwork because both variables are essential for advanced educational interaction, which reinforces the theories developed in previous studies.

Nonetheless, the mutual support variable was not significant because sometimes the team members coordinate in such a way that the activities are delegated based on the skills and knowledge of each member, which is why on many occasions they do not require the support of the other colleagues. As well as that, the study carried out will contribute to developing new and/or improving educational programs that allow students at public universities to develop, the ability to work as a team, promoting effective communication and coordinating the activities that each one will carry out according to their abilities and knowledge.

It is important to mention that, within the limitation of the present study, it is the demographic factor due to the analysis was carried out in the largest public university in norther Mexico. Along with, another limitation was the methodological factor because this study was carried out quantitatively due to its feasibility. Finally, another limitation that arose during the conduct of this study was content because it focused on determine the factors that affect teamwork. Therefore, it would add a lot of value if a second study was carried out in future research involving other public universities in the country and other variables such as leadership, student profile and technological resources and infrastructure available to have a broader picture of teamwork in university students.

### References

- Alyammahi, A., Alshurideh, M., Kurdi, B.A., Salloum, S.A. (2021). *The Impacts of Communication Ethics on Workplace Decision Making and Productivity*. Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2020. *AISI 2020. Advances in Intelligent Systems and Computing*, (1261), 488-500. https://doi.org/10.1007/978-3-030-58669-0\_44
- Baker, D. P., Amodeo, A. M., Krokos, K. J., Slonim, A., & Herrera, H. (2010). Assessing teamwork attitudes in healthcare: Development of the TeamSTEPPS teamwork attitudes questionnaire. *Quality & Safety in Health Care*, 19(6), 1-6. https://doi.org/10.1136/qshc.2009.036129
- Carmichael, S. L., Mehta, K., Raheel, H., Srikantiah, S., Chaudhuri, I., Trehan, S., Mohanty, S., Borkum, E., Mahapatra, T., Weng, Y., Kaimal, R., Sivasankaran, A., Sridharan, S., Rotz, D., Tarigopula, U. K., Bhattacharya, D., Atmavilas, Y., Munar, W., Rangarajan, A., & Darmstadt, G. L. (2019). Effects of team-based goals and non-monetary incentives on front-line health worker performance and maternal health behaviours: A cluster randomised controlled trial in Bihar, India. *BMJ Global Health*, *4*(4), 1-14. https://doi.org/10.1136/bmjgh-2018-001146
- Davidavičiene, V., al Majzoub, K., & Meidute-Kavaliauskiene, I. (2020). Factors affecting knowledge sharing in virtual teams. *Sustainability (Switzerland)*, *12*(17), 1-15. https://doi.org/10.3390/SU12176917
- Flavian, C., Guinalíu, M., & Jordan, P. (2019). Antecedents and consequences of trust on a virtual team leader. *European Journal of Management and Business Economics*, 28(1), 1-24. https://doi.org/10.1108/EJMBE-11-2017-0043
- Garro-Abarca, V., Palos-Sanchez, P., & Aguayo-Camacho, M. (2021). Virtual Teams in Times of Pandemic: Factors That Influence Performance. *Frontiers in Psychology*, *12*, 1-14. https://doi.org/10.3389/fpsyg.2021.624637
- Goñi, J., Cortázar, C., Alvares, D., Donoso, U., & Miranda, C. (2020). Is teamwork different online versus face-to-face? A case in engineering education. *Sustainability* (*Switzerland*), *12*(24), 1-18. https://doi.org/10.3390/su122410444
- Hair, J., Anderson, R., Tatham, R., & Black, W. (2004). *Análisis Multivariante*. Pearson Prentice Hall. https://cutt.ly/XPHo4op
- Haruna, J., Unoki, T., Ishikawa, K., Okamura, H., Kamada, Y., & Hashimoto, N. (2022). Influence of Mutual Support on Burnout among Intensive Care Unit Healthcare Professionals. *SAGE Open Nursing*, 8, 1-12. https://doi.org/10.1177/23779608221084977
- Khademian, Z., Pishgar, Z., & Torabizadeh, C. (2018). Effect of training on the attitude and knowledge of teamwork among anesthesia and operating room nursing students: A

- quasi-experimental study. *Shiraz E Medical Journal*, *19*(4), 1-6. https://doi.org/10.5812/semj.61079
- Lemon, L. L. (2019). The employee experience: how employees make meaning of employee engagement. *Journal of Public Relations Research*, *31*(5–6), 176-199. https://doi.org/10.1080/1062726X.2019.1704288
- Malone, T. W., & Crowston, K. (1994). El estudio interdisciplinario de la coordinación. *Encuestas Comput. ACM*, 26, 87-119. https://dl.acm.org/doi/10.1145/174666.174668
- Mercader, V., Galván-Vela, E., Ravina-Ripoll, R., & Popescu, C. R. Gh. (2021). A Focus on Ethical Value under the Vision of Leadership, Teamwork, Effective Communication and Productivity. *Journal of Risk and Financial Management*, *14*(11), 1-32. https://doi.org/10.3390/jrfm14110522
- Ntlokonkulu, Z. B., Rala, N. M. deline, & Goon, D. ter. (2018). Medium-fidelity simulation in clinical readiness: A phenomenological study of student midwives concerning teamwork. *BMC Nursing*, *17*(1), 1-8. https://doi.org/10.1186/s12912-018-0303-1
- Reeves, S., Xyrichis, A., & Zwarenstein, M. (2018). Teamwork, collaboration, coordination, and networking: Why we need to distinguish between different types of interprofessional practice. *Journal of interprofessional care*, *32*(1), 1-3. https://doi.org/10.1080/13561820.2017.1400150
- Rositas, J. (2014). Los tamaños de las muestras en encuestas de las ciencias sociales y su repercusion en la generacion del conocimiento (Sample sizes for social science surveys and impact on knowledge generation). *Innovaciones de Negocios*, 11(2), 235–268. http://www.web.facpya.uanl.mx/rev\_in/Revistas/11\_22/11.22 Art4 pp 235 268.pdf
- Smaliukienė, R., & Survilas, A. (2018). Relationship between organizational communication and creativity: How it advances in rigid structures? *Creativity Studies*, 11(1), 230-243. https://doi.org/10.3846/cs.2018.4004
- Stefanini, A., Aloini, D., & Gloor, P. (2020). Silence is golden: the role of team coordination in health operations. *International Journal of Operations and Production Management*, 40(9), 1421-1447. https://doi.org/10.1108/IJOPM-12-2019-0792
- Stevens, M. J., & Campion, M. A. (1999). Staffing work teams: development and validation of a selection test for teamwork settings. *Journal of Management*, 25, 207–228. https://doi.org/10.1016/S0149-2063(99)80010-5