

Distance education with short cases through the Teams platform: a methodology

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Summary

Given the increase in digital learning, a didactic methodology based on case studies is presented to support collaborative learning, social constructivism, self-directed learning and the use of tools for university students, through the Microsoft Teams platform. The methodology was developed with the objective of achieving superior learning with an enjoyable format, to decrease the attrition caused by pandemic, social distancing and screen time. In evaluating the methodology, the results emphasized the importance of accessibility and comprehension of the platform for better learning. Students perceived that with the proposed methodology they achieved high learning and recommended it for other subjects. They valued considerably the use of class time, not having extra activities and being able to interact and communicate with their classmates in an appropriate space..

Keywordse: Distance Education, Teams Platform, Case Methodology, Collaborative Learning, Teaching Methodology

Formación a distancia con casos cortos a través de la plataforma Teams: metodología

Resumo

Con el incremento del aprendizaje digital, se presenta una metodología didáctica con el uso de casos prácticos como apoyo en el aprendizaje colaborativo, el constructivismo social, el aprendizaje autodirigido y el uso de herramientas para estudiantes universitarios, a través de la plataforma Microsoft Teams. La metodología se desarrolló con el objetivo de lograr un aprendizaje superior con un formato ameno, para disminuir el desgaste causado por la pandemia, la distancia social y el tiempo de pantalla. Al evaluar la metodología, los resultados destacaron la importancia de la facilidad de acceso y la comprensión de la plataforma para un mejor aprendizaje. Los alumnos percibieron que con la metodología propuesta alcanzaron un alto nivel de aprendizaje y la recomendaron para otras asignaturas. Valoraron considerablemente el aprovechamiento del tiempo de clase, no tener actividades adicionales y poder socializar y comunicarse con los compañeros en el espacio adecuado.



Palabras clave: Aprendizaje a distancia, Plataforma de equipos, Método del caso, Aprendizaje colaborativo, Metodología didáctica.

1 Introduction

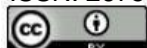
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Faced with the situation caused by the COVID 19 pandemic, many activities have had to be carried out remotely using digital communication tools as an alternative, since a face-to-face meeting was not possible (CANO et al., 2020).

Such is the case of education, in which, although there were already advances in what is called digital learning (GARCÍA ARETIO, 2017), digital tools had to be used from one day to the next to continue learning. Teachers began to use social communication platforms such as WhatsApp and Facebook to maintain contact with students, which they complemented with the use of platforms for videoconferencing, mainly Zoom and Google Meets, and also with some free applications and platforms for education such as Schoology and Edmodo, among others (OKTAVIANI; ZULFA; ELMANORA, 2020).

Regarding students, the pandemic accelerated their technological skills. Information Technology (IT) has not only become their main working tool, but also a practical way to interact and learn from other people and media. However, it has also been complicated for them. A study focused on knowing the domains and difficulties in distance education, highlights that although students had some knowledge of IT, they showed difficulties in handling some digital tools, which was reflected in their performance (de Moraes, de Sousa, Ponce and Fialho, 2021).

Even so, distance education has been gaining ground over face-to-face education due to its openness, flexibility, effectiveness, inclusion, cost, interactivity and interaction among other characteristics (GARCÍA ARETIO, 2017). Despite the resistance to change, digital learning is seen as a disruptive phenomenon, which like other areas, has been accelerated by the pandemic. Therefore, teaching strategies must evolve to achieve effective distance education (DUART-MONTOLIU; REPARAZ-ABAITUA, 2011).





Given the importance of monitoring and controlling teaching-learning activities, as well as the need for teachers to have all functions in a single platform (videoconferencing, file storage, chat, mail, homework control, data analysis, among others), several institutions decided to acquire specialized tools. Among the most convenient for education and that became relevant are Google Classroom, Canvas and Microsoft Teams (OKTAVIANI; ZULFA; ELMANORA, 2020).

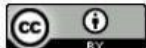
In particular Teams in a platform that has been successfully used for distance education (PLATA-GÓMEZ; GONZÁLEZ-JIMÉNEZ, 2020). Martin and Tapp (2019) highlight the use of the platform as a particularly useful tool for the process of computer-assisted collaborative learning for university institutions.

This paper exposes a didactic methodology based on case study with activities that support collaborative learning, social constructivism, self-directed learning and the use of tools for university students, through the Teams platform.

Considering that case discussion is a format that supports collaborative learning (GROS; SILVA, 2006), it was used in the proposed methodology, with the intention of achieving high learning with an enjoyable format, to decrease the attrition caused by pandemic, social distancing and screen time. The methodology was used for the learning unit "Electronic Business" of the marketing degree of a public state university in central Mexico during the school semester from August 2020 to January 2021, to 91 students that formed three groups.

To achieve the stated objective, the following specific objectives were proposed:

- To test a didactic methodology that includes activities that stimulate collaborative learning, social constructivism, self-directed learning and the use of collaboration and classification tools in students for four months.
- Design a questionnaire to measure the effectiveness of the proposed didactic methodology.
- To conduct a quasi-experiment with a group design with a single post-test applied to the three groups of students, to measure the effectiveness of the methodology.





The relevance of the research is manifested by identifying a strategic alternative of distance education, which reflects both academic benefits and a high acceptance by the users, in this case the students, in a situation in which digital learning will continue to intensify.

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2 Theoretical Framework

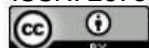
Distance Education

For some, distance education will always be at a disadvantage to face-to-face education (MARTÍNEZ, 2017), however, in reality each has its advantages and limitations. Among the advantages of distance education are the student's protagonism, flexibility, the use of technological resources, the role of educational resources and the separation between students and teachers (CHÁVES-TORRES, 2017). In addition, in the face of the pandemic, it becomes an alternative, in many cases almost the only one, for the continuity of studies (CANO et al., 2020).

Among the limitations are the financial conditions of students and teachers to have access to quality tools that allow distance education (DE MORAIS ARAÚJO et al., 2021). The lack of knowledge on how to use the tools is also an important disadvantage.

Generally, distance education is designed to provide a space for students and teachers where learning does not have immediate supervision by the teacher and there is no face-to-face communication. This is known as the asynchronous model, which is one of the main advantages of this type of learning, since the student does not need to coincide in times with the teacher and the rest of his colleagues (CHÁVES-TORRES, 2017).

However, there is also the synchronous modality, which is given through some communication tool, mainly videoconferencing, at a specific time with the teacher and the total number of students. In this modality it must be considered that not all students have the appropriate equipment, some connect from their cell phone or do not have a good internet signal, and therefore do not turn on their camera (RODRÍGUEZ-ARTEAGA, 2020). On the other hand, the effect has been observed that some students who did not





participate in face-to-face conditions, feel more confident and willing to dialogue at a distance (BELMONTE; SÁNCHEZ; GUERRERO, 2019).

The case method

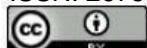
The case method was established more than 100 years ago at Harvard Business School and has been proven to contribute to improved learning (ECKHAUS, 2018). This method involves a shift from teacher focus to student focus, where instructors create an open and participatory atmosphere to motivate discussion as well as teamwork (ŠKUDIENĚ, 2012).

In this method, a specific situation is described, so that students learn to solve complex situations, individually or in groups, searching and analyzing information, building and sharing knowledge, exchanging opinions and deciding on the best alternatives (ARAMENDI et al., 2014, p. 417).

There are several types of case studies, which vary in length and format, among other aspects. The objective of this method is to achieve learning through past experiences of some organizations (ŠKUDIENĚ, 2012). In particular, cases with video have been related to a cognitive process that involves further exploration of data and evaluation of the topic, from a verbal discussion with written cases (BAILEY, 2005). The ease of accessing videos from platforms such as YouTube, allows most students to follow the proposed methodology.

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Collaborative learning

Learning has evolved enormously from focusing on the teacher or instructor as the main actor, to directing efforts towards the construction of knowledge centered on the student, this being one of the most important contributions of constructivism (BADA; OLUSEGUN, 2015). Collaborative learning is part of this change by giving a role to the student that makes him/her responsible for his/her learning (COLLAZOS; MENDOZA, 2006).

According to Johnson and Johnson (1994), collaborative learning consists of forming small groups of students with a didactic purpose, with which individual and peer learning can be maximized. It is a teaching methodology that allows students to form knowledge according to the interaction in the group, it achieves feedback, both from the members and the teacher, and different points of view are examined. Some authors agree that it increases motivation, stimulates productivity and responsibility (CALZADILLA, 2002; LÁZARO CAYUSO, 2017).

Aramendi et al. (2014, p. 415) define it as the technique by which students are pushed to be responsible for their performance, achieving greater interaction for the fulfillment of the tasks entrusted.

This type of learning has two modalities. One in which teachers collaborate to offer tools and material to the student, and the other in which the student "works as a team to solve the tasks set by the teacher, applying communication for group work" (CARRIÓ-PASTOR, 2007, p. 2).





Thus, group work (for this research applied in the discussion of cases) is a methodology used as a learning technique at different levels. An example is transformative learning, which proposes as an alternative that learning is achieved through group reflection of the world (MEZIROW, 2018). Project-based learning is also achieved through group work, with collaborative strategies involving brainstorming and cooperation among students in reviewing work (GRANT, 2002). Loewenstein, Thompson, and Gentner (2003) rely on group discussion of cases to promote learning in negotiation teams.

Social Constructivism

This theory, developed by Lev Vygotsky, establishes that knowledge is a process of interaction between the subject and his physical, social and cultural environment. Social constructivism drives students to learn through engagement, active learning and collaboration, as they are the active agent in the knowledge acquisition process (BADA; OLUSEGUN, 2015; MARTIN; TAPP, 2019).

Social constructivism emphasizes that knowledge construction is a collaborative process that is achieved through fluid conversation and shared ideas among learners in a learning community (MARTIN; TAPP, 2019). Teams includes audio, video, and desktop sharing, which leads to a social constructivist approach to an individual's learning that takes place due to their interactions in channels

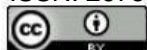
Self-directed learning

It refers to the extent to which a student can take charge of his learning at the psychological and methodological level, being able to take his learning outside the classroom (THOMAS; JANOSY, 2020, p. 141).

In particular, for distance education, it is important that the student can manage his own learning from technological tools (DE MORAIS ARAÚJO et al., 2021)..

Teams as an educational platform and its tools

Teams is a collaborative platform developed by Microsoft with solutions for work, home and educational environments. Its use for education allows making teams, which





are the different class groups. In the general channel of the team you can share files, make videoconference meetings and have individual or general conversations. In addition, access to Microsoft 365 allows the use of office applications including Excel, Word, PowerPoint and updated in real time, save and edit files by the different members of a team (MICROSOFT, 2021).

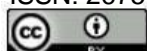
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There is little academic information on the use of Teams for education, however, studies are beginning to emerge that evaluate it (PAL; VANIJJA, 2020; PLATA-GÓMEZ; GONZÁLEZ-JIMÉNEZ, 2020; RABABAH, 2020). The one conducted by Rababah (2020) stands out, who identifies that students consider the advantages of the platform as convenience, time efficiency and collaborative work resources; while the disadvantages he identifies are in the order of connectivity and gaps in knowledge.

In particular, Calzadilla (2002) highlights the role of Teams in collaborative learning, since it stimulates interpersonal communication by enabling dialogue and discussion among group members. Technologies facilitate collaborative work and the opportunity to share information in real time and in multiple ways, such as the possibility of following up to evaluate the group's performance (ANIJOVICH; CAPPELLETTI, 2017), access to collaborative learning content such as Notepad (WILLINER, 2021) and the advantage of creating self-assessment exercises (ARBESÚ GARCÍA; GUTIÉRREZ MARTÍNEZ, 2014).

Among the Teams collaboration tools is Notepad, with which students can collaborate synchronously (MARTIN; TAPP, 2019). This application offers three options: a collaboration space in which all members can participate, a library of content uploaded by the teacher to the platform, and the notepad reserved for the teacher. In particular, the collaboration space makes it possible to generate files sorted by folder with information generated by the team members, to which everyone has access (MICROSOFT, 2021).

Videoconferencing is a very useful application within this educational platform, since it can be carried out with the whole group, or in sub-teams called "channels", which allow the integration of smaller groups for teamwork activities. The members of these channels can be changed per session and being in a channel created by the teacher, the



teacher has access to the videoconference, chat and shared files, which are updated with the collaboration of the members in real time and from wherever they are physically. The Teams platform also offers other functions, such as the option to upload assignments, give individual feedback, view grades, among others (MICROSOFT, 2021).

Microsoft includes a variety of interactive tools in addition to Teams that are integrated into the same platform, among them are Word, Excel, Forms, etc. (MARTIN; TAPP, 2019). In particular, for this research, Excel was used as a tool to classify and sort information from the students' investigations.

Table 1. Conceptual and operational definitions of the variables under study.

Variable	Definición conceptual	Definición operacional
Appreciation	Learning tool where a specific situation is described, so that students learn to solve complex situations, individually or in groups, seeking and analyzing information, building and sharing knowledge, exchanging opinions and deciding on the best alternatives (ARAMENDI et al., 2014, p. 417).	Interest in the cases raised
method		Dynamic process for solving complex situations
case method	Technique by which students are pushed to be responsible for their performance, achieving greater interaction for the fulfillment of the tasks entrusted (ARAMENDI et al., 2014, p. 415).	Teamwork in the discussion of cases
Learning		Exchange of opinions with



		different colleagues
collaborative learning	Social constructivism drives students to learn through engagement, active learning and collaboration. Knowledge construction is a collaborative process that is achieved through fluid conversation and shared ideas among learners in a learning community (MARTIN; TAPP, 2019).	Responsibility to perform class work
Constructivism		Responsibility to perform team work

Fuente: elaboración propia

3 Research methodology

The research developed was quasi-experimental, longitudinal and quantitative (HERNÁNDEZ; FERNÁNDEZ; BAPTISTA, 2010), by implementing a didactic methodology, using case studies and the digital tools of the Teams platform during a school semester. The evaluation of the students' performance and their perception of the platform, the proposed methodology and the cases, made it possible to measure the study variables at the end of the semester by means of a questionnaire.

The information was collected from September to December 2020, in the second school semester of 2020 (August 2020 to January 2021), carrying out a quantitative field research, from a self-applied survey remotely to 91 students of the degree in marketing, representing 59% of the first generation of this degree in mixed modality (UAEMÉX, 2021), in a state public university in central Mexico and who also took the subject "Electronic Business" in one of the three groups of the same teacher. The instrument was designed based on the studies of Aramendi, et al (2014), Martin and Tapp (2019) and Thomas and Janosy (2020).

The data collection instrument was submitted to a panel of three experts, adjusting it for subsequent application. Validity and reliability analysis was performed,





reaching acceptable parameters (KERLINGER et al., 2002). The questionnaire consists of 40 questions, 22 on a Likert scale and 18 open-ended to collect personal comments. It was applied remotely using Microsoft Forms at the beginning of December 2020.

The instrument was subjected to an exploratory factor analysis, using principal component analysis as the extraction method (HAIR; PRENTICE; CANO, 1999). The rotated component matrix is shown below..

Table 2. Validity of the research instrument by Exploratory Factorial Analysis

	Component					
	Appreciate method	Appreciate method	Appreciate method	Appreciate method	Appreciate method	Appreciate method
P1BlocFacil						.875
P2BlocUtil						.744
P3BlocOptim						.723
P4ComuncComp			.714			
P5ExcelFacil					.847	
P6ExcelUtil					.768	
P7ExcellOptim					.755	
P8EquipmentTaste		.424	.471			
P9WorkWithin		.736				
P10SameOrDistress		.725				
P11CasesInterest	.788					.281
P12ViewedBefore				.848		
P13VidViewedDuring	-.217			.621	-.274	.392
P14DiscCompCases	.640	.255	.417			
P15SocializeComp	.266		.705			
P16CompartPantCase		.369	.652			



P17OtherCompaCase	.581		.365	-.241		
P18ApprenticeOk	.361	.618		.229		
P19InvestigIndiv	.257	.400		.579	.232	
P20Comprehension	-.252	.534		-.364		
P21LearnOkCases	.636	.469		.304		
P22WeAsigCases	.706	.398		.239		

Fuente: elaboración propia

With the above results, the research instrument designed for this study was subjected to the Cronbach's Alpha reliability test, most commonly used in studies related to social sciences (Kerlinger and Lee, 2002). The following table shows the results for each variable of the study.

Reliability of the instrument

Variable	Questions	Number of items	Cronbach's Alpha	Mean
Apreciación método de casos	11, 14, 17, 21 y 22	5	0.794	4.360
Aprendizaje colaborativo	9, 10, 18 y 20	4	0.61	4.337
Constructivismo social	4, 8, 15 y 16	4	0.65	3.901
Aprendizaje auto dirigido	12, 13 y 19	3	0.58	3.553
Herramientas de clasificación	5, 6 y 7	3	0.65	3.935
Herramientas de colaboración	1, 2 y 3	3	0.67	3.934

Fuente: elaboración propia

In terms of the reliability of the instrument, acceptable parameters were obtained for each variable, since in most cases an internal consistency equal to or greater than 0.65 was achieved, which is reasonable for this type of study, and only two of the variables obtained lower parameters (0.58 and 0.61), which are considered regular (HAIR; PRENTICE; CANO, 1999).

4 Results and Discussion

1. Proposed teaching methodology

2. The tools of the Teams platform allow collaborative work and the use of short cases, considering the characteristics of distance education with synchronous modality. The methodology described in this section was developed under these assumptions, with the objective that university students can achieve a high level of learning in a pleasant environment that motivates the participation of all.
3. For the subject considered for this study, 15 key topics were identified and for each topic, the usefulness of a YouTube video (mainly) or a short reading that presents the case of a company related to the topic was determined, developing a brief questionnaire so that at the end of the analysis of the case, students were able to solve it.
4. The cases selected for this research were mainly short videos of companies sharing information on a topic related to the topic of study. The teacher had to adapt the questions to achieve the learning objective. The students, in turn, had the opportunity to analyze the video as many times as necessary to understand the problem posed.
5. Considering the findings mentioned by Rababah (2020) in his study, the proposed methodology sought to achieve the learning of the topic, decrease the students' screen time during the day, make efficient use of class time, the participation of all students in the dialogue (BELMONTE; SÁNCHEZ; GUERRERO, 2019) and socialization with some of their classmates, taking collaborative learning as a support (GROS; SILVA, 2006).
6. The proposed methodology was carried out with the following stages:
7. 1. The topics were assigned to teams of three students randomly, who had to research them remotely, make a summary with examples, following indications and rubrics and upload it to the collaborative Notepad section. A folder was opened for each topic so that all students had the possibility of consulting the



notes of each topic. In some cases, the information was transferred to an Excel table.

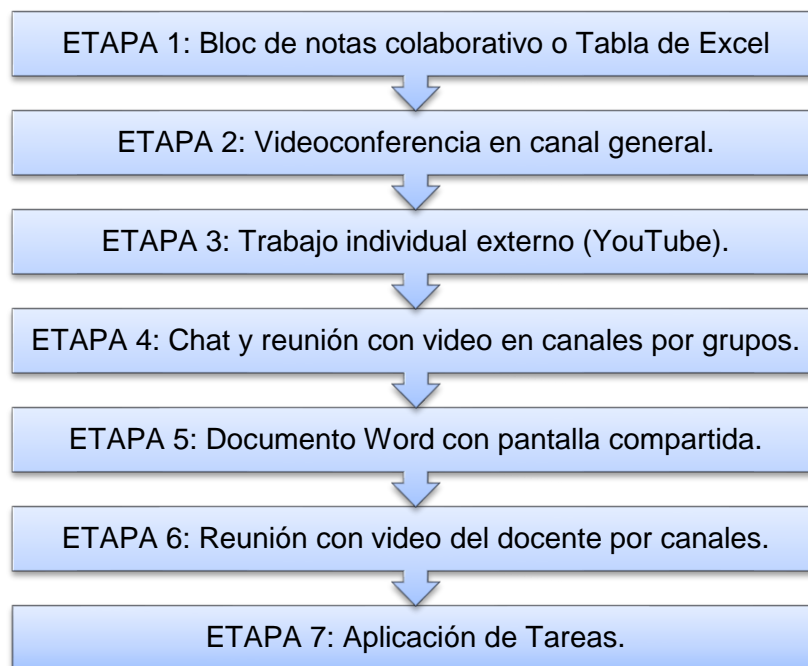
8. 2. During the videoconference class, in the general channel, approximately 40 minutes of the 120 minutes of the session were allocated for the students in each team to research the topic assigned to them. The teacher emphasized key concepts, shared examples and answered questions.
9. 3. Subsequently, the students were assigned the video accessible through the YouTube platform or some visible reading in the Teams files on the case study. The videos are short, since they have a maximum duration of 10 minutes, and deal with points that exemplify the assigned topic. The access data to the case and the analysis questions (five approximately), were made known in the general chat of the platform.
- 10.4. After watching the video or reading the case, the students went to the team channel, where they had the opportunity to talk in a more direct and friendly way with their peers, using the channel chat or the one contained in the video calls, with the objective of analyzing and discussing the case within the time allotted for the session.
- 11.5. The students of each team were asked to write a document together, solving the questions of the case and generating a section of conclusions. For this activity, they generally shared the screen of a Word file, where everyone was collaborating and modifying it in real time. Approximately 30 minutes were allotted for this activity.
- 12.6. The teacher joined, via videoconference, once or twice the channel of each team to corroborate the attendance of the members, to motivate the participation of all in the discussion of the case, as well as to resolve doubts.
- 13.7. At the end of the activity, students had to individually upload the final document in the homework section. The activity was due the same day and only a few hours after the end of the class. In this way, it was guaranteed that everyone



would work and make an effort to finish the work together within the class time, in order to upload it on time..

Graffic 1 - Teams platform tools

used at each stage of the proposed methodology



Fuente: Elaboración propia

The sequence of the methodological proposal is shown in Figure 1, where each of the stages and the TEAMS platform tool used are indicated. If a student missed a session, he/she had access to the case and the related questions in the homework



section, as well as to the notes on the topic in the collaborative notepad, having to solve it individually.

The next session began by commenting on the answers to the questions of the previous case, which served as a review of the topic before starting with the new topic. The next topic followed the same dynamic, exchanging the members of the groups for the different channels. The teacher was always attentive to individual or team video calls, as well as to messages where students requested a chat conversation.

Applying this methodology consistently for 15 topics seen during the course made it possible to evaluate its effectiveness at the end of the course, to know the students' perception and to identify the performance achieved. For this purpose, a correlation was made between the results of the questions and the students' individual grades in order to obtain more precise information..

Case method evaluation

With respect to the cases, 96% of the students found them interesting. Likewise, 73% stated that they watched the videos or read the readings about the case studies beforehand, although the same percentage stated that they preferred to watch them at the time of the class. It is noteworthy that only 37% of the students surveyed expressed that it took them a greater effort to analyze the videos in English.

Eighty-six percent of the students agreed that they enjoyed working on the cases by discussing them with their classmates, while 11% were doubtful. Similarly, 80% agreed that they could talk and greet classmates with this type of dynamic, 16% were doubtful and very few disagreed.

These results show a positive appreciation of the case method, which is reflected not only in the fact that students enjoyed doing the activities, but also that they had a positive impact on their performance..

Evaluation didactic methodology

Eighty percent of the students liked working in a team and presenting the topics. Almost all students (98%) liked the fact that the requested work was done and completed within the class time, although there were some who found it stressful (11%). Sixty





percent felt they had more freedom to participate in the small groups than with the whole group. Even 36% indicated that they felt more compelled to participate because they were in a small group.

The above reflects the impact of the proposed methodology on collaborative learning, it can be said that the activities developed invited the student to be more participative and the objective of collaboration was achieved.

Regarding the way of working as a team to solve the case study, 83% of the students agreed that they liked to share the screen of one of the classmates to solve the case and 13% were doubtful about this tool. 83% liked communicating via the Teams chat while solving the case.

85% of the students preferred to work with audio only, without turning on their camera. 27% liked working in teams with the camera on. Only 32 % expressed that they use WhatsApp as an external conversation with teammates, which may indicate that they did use the communication alternatives offered by Teams. 81 % liked working with different teammates, although 25 % had some problems working with some of them.

This indicates that students were looking for ways to stay in communication and resolve situations that arose, thus generating self-directed learning. The activities were clearly centered on the student, their contributions, discussions and decision making with respect to the final document to be delivered, which is in accordance with what is established by social constructivism..

Teams platform and tools

The vast majority of students agreed or strongly agreed that the Teams platform is easy to use. However, regarding the Notepad tool, 37 % of the students were hesitant to consider it easy to use or disagreed, although they considered it useful by 80 %. Regarding the shared content tool using Excel, 65 % considered it easy to use and 82 % considered it useful.

Only 47 % estimated that communication through the platform is better with their peers compared to other means, although this value increased to 80 % when it came to





direct communication with the teacher. Most of the respondents (approximately 70 %) rated the videoconferences as clear and of high quality..

Learning outcomes

Ninety-five percent of the students agreed that they achieved a higher level of learning in the course. Twenty-nine percent considered that they obtained this learning because of the virtual modality, 48% were doubtful about it and 23% stated that perhaps they could have learned more in the face-to-face modality.

Even so, 92 % agreed that the learning was better because of the case dynamics that took place during the course and only 7 % were doubtful. Similarly, the vast majority (92%) agreed in recommending this method for other subjects..

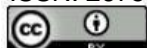
Discussion of results

The above results show a didactic methodology accepted by the students and with which they also recognize its usefulness to obtain superior learning.

As part of the quantitative research, the correlations between the questions were analyzed and some relevant results were identified. Significantly, students who considered the video conferencing via Teams to be clear and with quality, also considered the Teams platform to be easy to use. This indicates that the perception of ease of use could be linked to the quality of the user's internet.

Consideration should be given to the need for learners to have access to the necessary tools: internet and computer equipment, as well as knowledge of using the platform. Martin and Tapp (2019) agree on the need to train users in its use for greater utilization.

Students who considered the use of Excel and Notepad on the platform useful, also considered them to be user-friendly tools: when there is greater knowledge and perceived ease of use of some tool, it is feasible that students find it more useful. It can be said that collaboration and classification tools play an important role in achieving learning and that it will be important to train students in their use to get the most out of them.





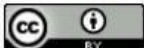
Students who liked working in teams to expose the topics also stated that they found the use of the Notepad useful. This finding has to do with the need to know technological tools that support collaborative learning.

There was a negative correlation between the stress expressed by sending the evidence of activities on the same day, with the pleasure of working within the time allotted for the session. This finding is something that teachers should consider in order to balance stress levels with the importance of encouraging their students to develop organizational skills and active work. The latter is part of self-directed learning, as students must learn to self-manage their time.

The enjoyment of working discussing cases with peers is related to the enjoyment of working in teams and not having work outside of class, participation with greater freedom and interest in the cases analyzed. This reflects a positive and favorable attitude towards the proposed didactic methodology, given that the vast majority of students agreed on these items. This corroborates the focus on the motivation generated by collaborative work (CALZADILLA, 2002; LÁZARO CAYUSO, 2017).

Regarding Teams tools, students who liked screen sharing in their group also considered that they had better communication through the platform than by other means, which are also the students who preferred to turn on their camera during the sessions. Those who liked using the Teams chat with their peers also liked working in teams and felt they had more freedom to participate in the groups. From this we can highlight the importance of motivating them to use the tools offered by the platform. Calzadilla (2002) agrees with the benefits of using different technological tools to achieve learning.

Those who found Notepad useful also considered that they obtained better learning derived from the case methodology. Those who had problems with the Notepad agreed that they had problems working with a classmate, which indicates that the ease of use of the tool could contribute to a better relationship among students. Similarly, those who had problems working with Excel on the platform considered that their learning





would have been better if they had been in person. This confirms the importance of tools that are easy to use and work properly, so that students appreciate distance education.

In reference to the results obtained, those who considered that they had obtained superior learning were those who significantly liked working in a team, liked working during class time and liked the cases. This reflects the importance of the teacher's work in verifying the participation of the teams and selecting attractive cases. Similarly, those who would recommend this way of working are those who liked the cases and working in teams..

The above results show a didactic methodology accepted by the students and with which they also recognize its usefulness to obtain superior learning.

As part of the quantitative research, the correlations between the questions were analyzed and some relevant results were identified. Significantly, students who considered the video conferencing via Teams to be clear and with quality, also considered the Teams platform to be easy to use. This indicates that the perception of ease of use could be linked to the quality of the user's internet.

Consideration should be given to the need for learners to have access to the necessary tools: internet and computer equipment, as well as knowledge of using the platform. Martin and Tapp (2019) agree on the need to train users in its use for greater utilization.

Students who considered the use of Excel and Notepad on the platform useful, also considered them to be user-friendly tools: when there is greater knowledge and perceived ease of use of some tool, it is feasible that students find it more useful. It can be said that collaboration and classification tools play an important role in achieving learning and that it will be important to train students in their use to get the most out of them.

Students who liked working in teams to expose the topics also stated that they found the use of the Notepad useful. This finding has to do with the need to know technological tools that support collaborative learning.





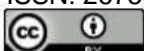
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5 Conclusions

From the described results it can be said that the proposed didactic methodology contributes to achieve a high learning in a pleasant way to most of the students, reaching its objective. Likewise, it can be said that the methodology contributes to collaborative learning, social constructivism and self-directed learning, as well as to the use of collaborative and grading tools in a convenient way.

The importance of accessibility and understanding of the tool to achieve better learning is emphasized. It is evident that the Teams platform is considered useful, although not so easy to use, and that this ease of use has an impact on students feeling comfortable working in teams. This is why work should be done to introduce students to the tools offered by Teams so that they get to know them and get used to them. The quality of the students' Internet also affects the ease of use of the platform. Likewise, the platform is considered adequate for communication among the students at the time of developing the work, and with the teacher.

The way of working allowed the students to have a relaxed communication space, where they could interact with different classmates, which, in the pandemic situation, is useful to avoid the emotional exhaustion generated by social distancing.

It is important that the teacher take the time to select short, open-access, engaging cases in both Spanish and English and develop questions that trigger discussion and analysis. In addition, the teacher should foster a pleasant environment and continuous communication.





In general, the students who felt comfortable with different aspects of the methodology are those who obtained the best results; therefore, care should be taken not only that they know the platform, but also that they communicate respectfully, openly and fluently while discussing the cases. It is evident that active participation in a pleasant environment has a significant impact on their academic performance.

One of the characteristics of the methodology that stood out among the students is that they no longer had to work outside class hours. This reflects that, faced with the fatigue of spending so much time on the screen or doing homework, they recognize the advantage of taking advantage of class time. This motivated them to do organized work that included the participation of all members, since they felt freer to participate and more accountable to their classmates. At the same time, the format prevented them from missing classes.

Among the limitations of this work is that the subject of study was suitable for the use of business cases, but in reality, not all subjects are in this situation, although they could adapt the methodology.

The research contributes to evidence the advantages of collaborative learning and the application of short cases, using digital media as an effective method to maximize learning.

The results reflect superior learning from the methodology and the students' satisfaction in having the intention of recommending it for other subjects. Likewise, students valued the academic results achieved with the methodology and are inclined to use it, since it allows them to take advantage of class time and not have extra-class activities. Additionally, they appreciate the coexistence and communication with their classmates in an appropriate space, making the classes not only fulfill the learning objective, but also help socialization, so necessary for university students in distance education.





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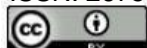
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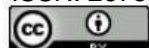
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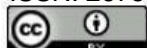
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