



## Instructional methods in emergency online teaching: The case of a Latin American business school

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### Abstract

Instructional methods have an impact on the learning process and the quality of educational services aimed at accomplishing learning objectives. The purpose of this paper is to examine the most preferred instructional methods during emergency online teaching used by instructors. The data was collected through semi-structured interviews with 36 full-time and part-time faculty members belonging to an accredited Hispanic business school. The results showed that faculty used many different instructional methods during synchronous and asynchronous sessions. Similarly, there is a relationship between the professors' academic areas and the instructional methods used. Based on these results, this study proposes a reference model of instructional methods for higher education based on professors' experiences during emergency online teaching that includes five categories: group methods, active methods to contribute to the development of competencies, methods to ascertain prior knowledge, methods that promote understanding through the organization of information and methods that use digital tools. The originality of the study lies in the fact that it analyzes the migration experience from in-person to online teaching at an accredited Hispanic business institution.

**Keywords:** COVID-19, Emergency online teaching, Instructional design, Instructional methods, Management programs, Online learning.

**Citation |** Valcazar, E., Avolio, B., & Prados-Pena, M. B. (2023).

Instructional methods in emergency online teaching: The case of a Latin American business school. *Journal of Education and E-Learning Research*, 10(1), 68-79. 10.20448/jeelr.v10i1.4421

#### History:

Received: 31 October 2022

Revised: 16 December 2022

Accepted: 30 December 2022

Published: 20 January 2023

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**Publisher:** Asian Online Journal Publishing Group

**Funding:** This study received no specific financial support.

**Authors' Contributions:** All authors contributed equally to the conception and design of the study.

**Competing Interests:** The authors declare that they have no conflict of interest.

**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

**Ethical:** This study followed all ethical practices during writing.

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### Contribution of this paper to the literature

This research provides empirical evidence of the most valued instructional methods used during the period of emergency online teaching and proposes a reference model of instructional methods for higher education that can be useful for management programs at the undergraduate and graduate levels.

## 1. Introduction

During the COVID-19 pandemic, online learning played a significant role in education. Many educational institutions shift to a virtual environment in order to provide their services. Crawford, Butler-Henderson, Rudolph, and Glowatz (2020) analyzed higher education institutions' responses and found different answers. Some of them ended their in-person operations and migrated to fully remote education. The educational institutions with more resources and experience in distant teaching implemented the necessary changes quickly and successfully. Similarly, institutions without the experience replicated their previous educational models in a new virtual environment and provided *emergency online instructions* (Hodges, Moore, Lockee, Trust, & Bond, 2020).

The challenges in *emergency online teaching* during the pandemic have been numerous including the weakness of the institutions' online teaching infrastructure, the professors' lack of experience using infrastructure, the information gap and a complex environment at home for both professors and students. Moreover, a transition from in-person education to e-learning is a technological, pedagogical and instructional challenge (CoSN, 2020). One of the main pedagogical issues that has influenced emergency online teaching is the use of appropriate instructional methods that help students develop the expected competencies. Additionally, the use of appropriate instructional methods not only influences the development of the desired skills but also affects the professors' teaching styles which have a significant influence on students' perceptions of educational quality. (Arrieta & Avolio, 2020; Masserini, Bini, & Pratesi, 2019).

Instructional methods are activities that instructors use to facilitate learning throughout the instructional process. Educators can use multiple instructional methods including case studies, journals, lectures, blogs, storytelling, peer feedback, quizzes, role plays, brainstorming activities, student presentations and videotaping of presentations followed by a review of those presentations. According to Kanuka, Rourke, and Laflamme (2007), instructional methods are deliberate and planned pedagogical activities aimed at meeting learning objectives learning outcomes and the professors' and students' roles are clearly defined. An academic program's plan of study describes what to teach while the instructional methods emphasize *how* to teach (Shatzer, 1998). In addition, Lestari, Maridi, and Ashadi (2018) consider instructional methods to be those activities carried out by the professors and the students to attain the learning objectives. In this regard, the choice of instructional methods has an effect on the quality of the learning process (Walsh, 2011). When instructional methods are consistent with students' learning styles, students maintain positive attitudes and perform better (Dunn et al., 1990).

Although, online learning is not new. The COVID-19 crisis generated the first mass migration to online learning (Whittle, Tiwari, Yan, & Williams, 2020). In addition, the literature has widely covered the topic of online learning. There are no thorough analyses of the instructional methods used during emergency online teaching in Latin American countries. It is necessary to conduct analyses due to the main differences between developing and developed countries. The educational systems of Latin American countries are less developed when compared to those of developed countries because Latin American institutions face many technological challenges that are necessary to provide online education. Thus, this qualitative study aimed to answer the following research questions: which instructional methods did business school professors most prefer during *emergency online teaching*? In what ways did the use of instructional methods differ among the business schools based on the professors' different experiences? This study evaluated the experiences of professors at a Peruvian business school as they adapted from in-person or blended education to an emergency online teaching setting so that this type of teaching can be included in future online or hybrid programs.

This paper has five sections. The first section presents the literature review that shows the instructional methods of the study. The second section presents the methodology of the research. The third section shows the results and the last section presents the discussion of the findings as well as the conclusion.

## 2. Literature Review

The literature review consisted of three phases: establishing the criteria for selecting and classifying the articles, identifying the articles related to the research topic and analyzing the selected articles. The keyword used in the search was "instructional methods." This study covered articles that had been published from 2015 to 2021, 309 articles were obtained. A total of 11 articles that aimed to answer the research question were selected. In addition, we identified two additional papers taking into account the main references of the previously selected papers. Then, articles were classified using a thematic analysis. This classification is briefly summarized in Table 1.

Previous literature has extensively covered the study of instructional methods from various perspectives. First, some authors analyzed the effectiveness of specific instructional methods used to teach a particular discipline such as health sciences (Boeker, Andel, Vach, & Frankenschmidt, 2013; Reder, Cummings, & Quan, 2006). Second, other scholars studied the effectiveness of certain instructional methods for certain levels of instruction such as preschool or primary education (Huebner & Meltzoff, 2005; Krivec, Koren, Grmek, & Čagran, 2020; Nist & Joseph, 2019). Third, other researchers focused on trying to understand the effectiveness of a specific instructional method in improving student engagement and learning (Campbell & Mayer, 2009) or to promote education on preventative healthcare (Evans, Edmundson-Drane, & Harris, 2000). Fourth, some research addressed the relationship between specific instructional methods and student satisfaction (Salyers, 2005) as well as the development of competencies in management education (Cajiao & Burke, 2016). Fifth, other scholars analyzed the development of instructional methods for students with reading difficulties (Wright & Jacobs, 2003), hearing impairment (Berent et al., 2007) and intellectual disabilities (Gilson, Carter, & Biggs, 2017; Wolery & Schuster, 1997). Finally, the most recent

studies examine differences in the preferred instructional tools used by professors belonging to different disciplines (Albert, Fulton, Ramanau, & Janes, 2021).

This study aimed to identify the most preferred instructional methods used by business school professors during *emergency online teaching* based on their experience. The literature was reviewed to identify various instructional methods to improve student engagement in the learning process. The reviewed literature includes various proposals for how to classify instructional methods. Strait (1993) adopted two approaches for the classification of instructional methods: deductive teaching methods (to promote learning by reception-learning) and inductive methods (to promote active and discovery-learning). In other words, deductive teaching methods are oriented toward teacher-centered instructional methods (e.g., guest lectures) and inductive methods are oriented toward interaction-centered instructional methods (e.g., case studies or class discussions between teachers and students). Moreover, Rogers and Freiberg (1994) proposed a classification based on the roles taken by the teacher and the students: the teacher-centered method (e.g., lectures) and the student-centered method (e.g., group tasks or cooperative learning). Lang and Evans (2006) proposed a classification of five types of instructional methods: direct (teacher-directed tasks, such as lectures), indirect (student-centered tasks, such as homework and assignments), experiential (inductive, student-centered, activity-oriented tasks such as role-plays), cooperative (interaction-centered tasks such as brainstorming) and individual learning (tasks that develop student initiative, self-reliance and self-improvement such as individual projects). Similarly, Fer (2011) formed three categories of instructional methods based on the degree of interaction between the teacher and the students: individual-centered, interaction-centered and teacher-centered. Finally, Pimienta (2012) classified instructional methods into four categories: group methods, active methods that contribute to the development of competencies, methods to ascertain prior knowledge and methods that promote understanding through the organization of information.

The literature was analyzed using the Fer (2011) model which classifies instructional methods based on the degree of teacher-student interaction. The first category corresponds to the teacher-centered model. These methods focus on the active role of the teacher throughout the learning process while students pay close attention and group work is discouraged. These methods place the instructor in charge of leading and sharing knowledge. The instructor is the center of the entire learning process and is also the person who receives the most attention from the students. In this category, the lecture was the most commonly reported method in the literature. In the educational context, a lecture is defined as “an oral presentation given by a teacher with the objective of teaching students about a specific topic.” It is a traditional and frequently applied method (Black, Weinberg, & Brodwin, 2014; Honebein & Honebein, 2015). Various technological tools can be used to implement this instructional method. For example, professors can use slides as supporting material during a traditional lecture (Young, Klemz, & Murphy, 2003). Smith, Smith, and Boone (2000) made the relevant statement on its use during emergency online teaching stated that this method is as effective in an online learning environment as it is in a traditional classroom environment.

The second category, student-centered instructional methods provides the opportunity for students to take an active role while the teacher acts as an adviser or facilitator. These methods also encourage students to make their own decisions. However, neither the teacher nor the students interact in these methods. One example of this method is the feedback provided to students on their performance regarding the learning objectives. This method is recommended as it improves student performance (Black et al., 2014). Similarly, empirical evidence indicates that the feedback given to learners should be focused on activities carried out during synchronous class sessions (Van Dijk, Van den Berg, & Van Keulen, 1999) and on homework assignments (Marzano, Pickering, & Pollock, 2001; Van Dijk et al., 1999). On the other hand, feedback is provided by instructors as well as by other students. For example, Sauers and Walker (2004) in their study of a business communication class reported a higher incidence of peer feedback compared to that received in a traditional class. Another example of individual-centered instructional methods is exams (questionnaires and quizzes). According to Marzano et al. (2001), exams provide opportunities for students to test their knowledge and understanding of a specific topic discussed in class. However, exams must be complemented by other methods in order to assess students effectively (Felder, 1995). Indeed, teachers and professors must recognize which methods best suit students' learning styles. Both student-centered instructional methods, feedback and exams involve more active student participation when compared to the methods in the first category. Student participation firmly positions the teacher's role as that of a guide during the learning process.

Finally, the third category contains interaction-centered instructional methods. These methods promote an environment that facilitates joint participation and collaboration between students and teachers or professors. These methods improve the exchange of knowledge, ideas and opinions among the main actors in the learning process. In this category, classroom discussions between teachers and students were the most commonly reported instructional method mentioned in the literature. Classroom discussion involves the active participation of students who can contribute information about their preexisting knowledge and experiences. In order to achieve positive academic results during classroom discussions, the teacher should guide the discussion by asking open-ended questions at appropriate times (Tenenbaum, Naidu, Jegede, & Austin, 2001). Moreover, online discussions can provide the learner comfort which can translate into higher levels of participation (Smith et al., 2000). However, Van Dijk et al. (1999) noted that this method requires resources and an optimal number of students to allow instructors to control the pace and content of the class. Another example of an interaction-centered method is cooperative learning. Using this method, students can work in groups to achieve a common learning objective with the guidance of the teacher or professor. Thus, this method requires students to take an active role throughout the learning process (Russell & Waters, 2010). According to Marzano et al. (2001), cooperative learning has significant effects on learning even if groups are in competition with one another and it promotes a sense of belonging and team building (Honebein & Honebein, 2015).

Table 1. Literature review.

Instructional methods	Reference
Teacher-centered instructional methods	
Reminder of previous classes and assignments	Felder (1995); Black et al. (2014)
Use of examples	Felder (1995); Van Dijk et al. (1999); Tenenbaum et al. (2001)
Use of handouts (Explanatory paragraphs, complex flow charts, figures)	Felder (1995)
Study tips	Van Dijk et al. (1999)
Instructional videos or tutorials	Honebein and Honebein (2015)
Lectures	Van Dijk et al. (1999); Smith et al. (2000); Young et al. (2003); Black et al. (2014); Honebein and Honebein (2015)
Removal of redundant material	
Use of graphs, mental pictures, pictographs, etc.	
Generation and testing of hypotheses	Marzano et al. (2001)
Setting of learning objectives	
Simulations	Young et al. (2003); Honebein and Honebein (2015)
Use of graphic organizers, post-its	Russell and Waters (2010)
Guest lectures	Kanuka (2011); Black et al. (2014)
Individual-centered instructional methods	
Promotion of analytical, evaluative and creative thinking	
Promotion of self-learning	Felder (1995)
Flipped classroom	Beenen and Arbaugh (2019)
Homework and assignments	Van Dijk et al. (1999); Marzano et al. (2001); Young et al. (2003)
Feedback	Van Dijk et al. (1999); Marzano et al. (2001); Sauers and Walker (2004); Black et al. (2014)
Exams (Questionnaires and quizzes)	Van Dijk et al. (1999); Marzano et al. (2001); Young et al. (2003); Felder (1995)
Individual presentations	Van Dijk et al. (1999); Russell and Waters (2010)
Identification of similarities and differences (Related to the construction of analogies)	
Promotion of effort and recognition	Marzano et al. (2001)
Problem-solving orientation	Tenenbaum et al. (2001); Honebein and Honebein (2015)
Individual projects	Young et al. (2003); Honebein and Honebein (2015)
Tutorials	Smith et al. (2000)
Classroom exercises	Young et al. (2003)
Retrieval practices	Sauers and Walker (2004)
Study guides and reviews	
Active/practical learning	Russell and Waters (2010)
WebQuest	Kanuka (2011)
Use of information and communication technologies (Internet, movies, videos)	Russell and Waters (2010); Black et al. (2014); Sauers and Walker (2004); Walsh., O'Brien, and Costin (2021)
Drill and practice (Related to the acquisition of knowledge through repetition)	
Guided discovery (Students' active participation in the search for knowledge)	
Silent meetings (Non-traditional meeting format where communication is limited)	Honebein and Honebein (2015)
Apprenticeship (Related to active learning, which allows students to learn by doing)	
Learner control (Students' exercise of a certain level of control over the learning process)	
Interaction-centered instructional methods	
Teamwork	Felder (1995); Sauers and Walker (2004)
Group work (Is necessary to synthesize the best solutions)	
Group assignments	Felder (1995)
Group problem solving	
Questioning and discussion	Felder (1995); Van Dijk et al. (1999)
Discussions between the instructor and students	Van Dijk et al. (1999); Black et al. (2014); Honebein and Honebein (2015)
Peer-to-peer tutoring	Van Dijk et al. (1999)
Group discussions	Smith et al. (2000); Young et al. (2003); Sauers and Walker (2004); Black et al. (2014); Van Dijk et al. (1999); Honebein and Honebein (2015); Tenenbaum et al. (2001)
Access to the instructor (Referring to instructor-student communication)	Sauers and Walker (2004); Black et al. (2014)
Cooperative learning	Marzano et al. (2001); Russell and Waters (2010); Honebein and Honebein (2015)
Kinesthetic activities	
Providing hints and asking questions (To reinforce previously discussed topics)	Marzano et al. (2001)
Sharing ideas among students	Tenenbaum et al. (2001)
Case studies	Young et al. (2003); Kanuka. (2011); Black et al. (2014); Honebein and Honebein (2015)

Instructional methods	Reference
Group projects	Young et al. (2003); Honebein and Honebein (2015)
Study abroad	Russell and Waters (2010); Honebein and Honebein (2015)
Role plays	Kanuka (2011); Honebein and Honebein (2015)
Reflection questions	Kanuka (2011)
Debates	Kanuka (2011); Honebein and Honebein (2015); Tenenbaum et al. (2001)
Brainstorming	Black et al. (2014); Honebein and Honebein (2015)
Interactive activities	Honebein and Honebein (2015)
Promotion of communication among students	
Socratic dialogue	
Panel discussions	
Laboratory use	
Seminars	
Expert interviews	
Symposiums	
Games	Honebein and Honebein (2015); Russell and Waters (2010)

### 3. Methodology

A case study based on a Hispanic business school was used to identify the instructional methods used during *emergency online teaching* in Master in Business Administration (MBA) programs in Latin America. The study was conducted at CENTRUM PUCP Business School (CPUCP) which is part of Pontificia Universidad Católica del Perú, located in Lima, Peru. The study participants were 36 full-time and part-time MBA faculty members who taught *emergency online courses* during the pandemic. Table 2 shows the demographic characteristics of the participants.

Table 2. Participant demographics.

Participants	Number	Percentage
Work schedule		
Full-time	13	36%
Part-time	23	64%
Gender		
Female	9	25%
Male	27	75%
Age		
30-50	15	42%
51-70	19	53%
71 or older	2	5%

The data was collected in two phases. The first phase took place between July 2020 and December 2020. In this phase, full-time and part-time MBA faculty members were asked about the instructional methods they used in their online synchronous and asynchronous classes. They mentioned the instructional methods that were most appropriate for increasing students' motivation and achieving the expected competencies in their courses. These instructional methods had been shared with the entire faculty through an online teaching training course on the Canvas platform developed to improve professors' teaching competencies. The second phase was carried out between January 2021 and February 2021. In this phase, 36 full-time and part-time professors were interviewed through video conferencing technology. The interviews focused on the most beneficial instructional methods as perceived by the professors.

We used a semi-structured questionnaire. The following open-ended question was included: "In your opinion, what are the most suitable instructional methods for online teaching?" Participants signed an informed consent form about their voluntary participation and were promised that no personally identifiable information would be tied to their answers in the study. The information was coded, categorized and analyzed using analytic induction. Marshall and Rossman (1999) six phases of analysis were used to analyze the data. We followed the following analysis phases: identification and description of the categories, recording of the frequency of each of the categories, identification and description of the themes and comparison of the results of both of the analyzed populations. The following strategies were used to ensure construct validity: information was triangulated, a chain of evidence was kept in the analysis and quasi-statistics were used to analyze the information related to each particular conclusion. The study used the pattern matching strategy to ensure internal validity. To ensure reliability, an external researcher verified the contents of the information analyzed.

In the last two decades, education in Peru has changed significantly due to economic growth, increased access to higher education and changes in regulatory policies that have improved the quality of education. These changes have been reflected in the increased number of undergraduate students, graduate students and educational institutions. The number of Peruvian undergraduate students increased from 424,000 in 2000 to 1.48 million in 2020, graduate students increased to an average of 87,495 professionals in graduate programs in 2020 and the number of Peruvian universities grew from 49 in 1990 to 94 in 2020 (National Superintendence for Higher Education, 2020). However, on March 16, 2020, the Peruvian government-imposed restrictions and declared that all in-person educational activities would cease.

This study was carried out at CPUCP which has three accreditations granted by the Association of Advance Collegiate Schools of Business, the Association of MBAs and the European Quality Improvement System. During

the pandemic, CPUCP's in-person doctoral, master's and executive education programs (approximately 3,500 students) shifted to online learning. However, online methodologies were not new to CPUCP because in 2003, it started its online MBA program which was ranked 14<sup>th</sup> in the QS Online MBA rankings of 2020, the only Latin American program included in that ranking. In this sense, the instructional methods identified for the successful implementation of *emergency online teaching* based on the experience of shifting to online teaching at a Hispanic institution accredited by international agencies are the main contribution of this study.

It is important to mention the position of the authors of this paper as business school researchers specializing in social science. Besides being professors and researchers, the authors have also been involved in the management of business schools for the last 20 years. The first author is a full-time professor responsible for teaching management courses at CPUCP. The second author has been a general director and is currently the head of department at CPUCP. The third author is a full-time professor responsible for teaching management and marketing courses at the University of Granada (Spain). During the pandemic, the authors were personally involved in all of the activities related to the implementation of *emergency online teaching* and experienced the challenges it presented. Throughout this study, the authors worked as part of a team and held regular discussions to guarantee that their analysis was based on their knowledge and experience.

## 4. Results

The results revealed the instructional methods professors valued the most during *emergency online teaching* at a Latin American business school and how the use of instructional methods varied based on professors' experiences. The professors who participated in the study were grouped into five academic areas, according to their specialization in the business school: strategy and leadership, finance, accounting and economics, marketing, sales, and social responsibility, operations, logistics and technology and entrepreneurship. Table 3 details the instructional methods and codes generated in the analysis. The results identified are explained below.

The results show that the professors used a variety of instructional methods. Pimienta (2012) developed a model that classified instructional methods into four categories of teaching and learning strategies: group methods, active methods to contribute to the development of competencies, methods to ascertain previous knowledge and methods that promote understanding through the organization of information. An additional category related to instructional methods that use digital tools was added to this model. Group methods accounted for 40% of the most preferred methods, active methods to contribute to the development of competencies accounted for 29%, methods to ascertain prior knowledge accounted for 17%, methods that promote understanding through the organization of information accounted for 10% and methods that use digital tools accounted for 5%. Workshops, debates and forums are group methods while in the active methods category, case studies, the flipped classroom and simulations are most common. As for the ascertaining methods category, exploratory questions and brainstorming were popular. Among the methods that promote understanding through the organization of information, the professors highlighted the use of videos related to the topic or context. Finally, for digital tools, the professors used digital applications.

Additionally, Table 3 shows the frequency with which professors belonging to the business school's five established academic areas preferred different instructional methods. Variance can be explained according to the nature of courses and the activities carried out in those courses. The results show that the most valued category of methods is the group methods category which focuses on the interaction among students. The professors expressed that experiential learning was a very valuable learning philosophy. Similarly, the forums on the Learning Management System platforms allowed interaction and dialogue between students and professors during the asynchronous stages of the courses. When analyzing the most valued instructional methods by academic area among professors who teach strategy and leadership courses, there is a preference for group methods (mainly workshops) and active methods such as the use of business case studies. As for professors who teach Finance, Accounting and Economics courses, they used group methods including workshops and classroom discussions. Professors teaching marketing, sales and social responsibility courses, group methods i.e. workshops, forums and debates were popular followed by active methods such as case studies. Professors teaching operations, logistics, and technology courses used group methods including workshops, debates and forums as well as some active methods, such as the case study method (focused on cases of productive operations) and the flipped classroom. Finally, professors teaching entrepreneurship courses used group methods including workshops with guest entrepreneurs, debates and forums but they also used active methods such as case studies and methods to ascertain prior knowledge like exploratory questions and brainstorming.

### 4.1. Group Methods

Group methods involve student collaboration and teamwork that require joint organization and analysis. In this category, professors mentioned the following instructional methods:

- a) Workshops. The results showed the frequent use of workshops aimed at generating collaborative learning, with different team members in different roles. On the other hand, courses related to entrepreneurship often included workshops with guest speakers for example, entrepreneurs who shared their personal entrepreneurial experiences with students. Professor 4 stated, "Entrepreneurs told their stories based on experiences. Another way of using workshops was through exercises where they had to apply theoretical concepts to the analysis of a case during the synchronous sessions. Professors mentioned that this method was especially relevant for social responsibility courses because it allowed students to discuss ethical situations and present their positions. As professor 6 indicated that "group exercises based on business cases were done synchronously and later, the results were analyzed in plenary sessions." The professors also stated that (as part of the team workshops) the representatives of each team made presentations where they showed the results of the activity to the rest of the class and received feedback from the professors and answered questions from their classmates.

Table 3. Most commonly used instructional methods, by academic area.

Instructional methods category	Instructional methods	Session type	Strategy and leadership	Finance, accounting, and economics	Marketing, sales, and social responsibility	Operations, logistics, and ICT	Entrepreneurship	Frequency	Preference
Group methods	Workshops	Synchronous	8	4	6	5	6	29	16%
	Debates	Synchronous	5	4	2	5	4	20	11%
	Forums	Synchronous	4	3	3	4	2	16	9%
	Feedback	Synchronous	2	1	1	1	0	5	3%
Active methods to contribute to the development of competencies	Case studies	Synchronous	7	4	3	4	3	21	12%
	Flipped classroom	Asynchronous	1	3	1	2	2	9	5%
	Simulations	Synchronous	4	2	0	0	2	8	5%
	Application projects	Asynchronous	3	2	1	0	0	6	3%
	Problem-based learning	Synchronous	0	1	1	1	0	3	2%
	Agile methodologies.	Synchronous	1	0	0	0	1	2	1%
	Project-based learning	Asynchronous	1	0	0	0	0	1	1%
Game-based learning	Synchronous	1	0	0	0	0	1	1%	
Methods to ascertain prior knowledge	Exploratory questions	Synchronous	6	3	3	2	3	17	10%
	Brainstorming	Synchronous	3	2	2	1	3	11	6%
	Questionnaires	Synchronous	1	0	0	1	0	2	1%
Methods that promote understanding through the organization of information	Videos	Synchronous	3	2	1	1	1	8	5%
	Visual organizers	Asynchronous	1	0	1	0	1	3	2%
	Cognitive maps	Asynchronous	2	0	0	0	1	3	2%
	Storytelling	Synchronous	0	1	0	0	1	2	1%
Methods that use digital tools	Digital applications	Synchronous	3	3	1	1	1	9	5%

- b) Debates. Debates develop intellectual competencies and must take place in an atmosphere of freedom and tolerance. Formal debates require a moderator and the teams must have previously researched the topic and constructed their arguments to defend a specific point of view. The participants indicated that they used debates to help students assess two different positions. Although these debates were not formal and therefore not limited by time restrictions or rigid guidelines enforced by a moderator, viewpoints were exchanged with the professor's guidance. For example, Professor 9 reported that the critical thinking course in the strategy and leadership area frequently implements this method to "guide the argumentation in the presentation of the positions on an issue or on possible decision-making regarding a case that has been presented."
- c) Forums. Learning Management Systems contain forums that can be implemented asynchronously. The professor presents a topic or asks questions through the platform and students exchange ideas or present new topics for discussion. According to the participants, the interaction among students based on specific topics or questions is very important for business programs. Professors can use online platforms to create different types of forums that allow interaction and dialogue during the asynchronous phase of the courses.
- d) Feedback. The professors indicated that every group activity is an opportunity to give direct feedback both in synchronous and asynchronous sessions (through Learning Management System platforms). It is important for students to receive feedback throughout the course. Some professors also allow students to give feedback to one another and even participate in the grading of other students.

#### 4.2. Active Methods to contribute to the Development of Competencies

Active methods promote student action and proactivity during learning sessions. In this category, professors mentioned the following instructional methods:

- a) Case studies. A case study describes a real or simulated event whose solution requires the use of knowledge and capacities. The use of the case study method is very common in business schools. The use of Harvard Business School cases or cases generated by the business school itself is a crucial element of the business school experience. The professors who teach the strategy, finance and operations courses frequently use this method in order to develop competencies related to these specialized fields.
- b) The flipped classroom. This pedagogical model guides students' studies and prepares them for synchronous sessions through specific course content as well as instructional material. According to the participants, the *emergency online teaching* context has favored the intensive use of this pedagogical model in which students must commit to carrying out different learning activities prior to the synchronous sessions. The professors stated that this advance preparation enhanced learning during the synchronous sessions due to the students' heightened level of preparation. This method requires the preparation of instructional material, videos, messages, infographics and more for students to view, engage with and responds to before the synchronous session.
- c) Simulations. Simulations put students into real-life situations in which they play certain roles with the purpose of gaining hands-on experience or discovering how to solve problems. The professors mentioned several courses that use simulations which are valued by the students and generate high levels of participation. In the strategy courses, professors reported using simulations related to strategic decisions to simulate real-life environments so that the students could know the results of their decisions.
- d) Application projects. These are projects in which students must apply theory to real-life situations in order to prove they have acquired new competencies. This is usually done asynchronously. For example, Professor 4, from the strategy and leadership area stated that in "the courses of organizational behavior and critical thinking, students prepare an application project in which they describe a personal work experience, diagnose a problem and propose possible solutions to the problem in about 800-1000 words." Another example from the accounting and finance courses mentioned by professor 7 that students in this area completed application projects that involved the use of the financial statements of real companies chosen by the students themselves. These projects had to be presented by the students to the whole class in a synchronous session, simulating a board meeting.
- e) Problem-based learning. This method promotes research, analysis and argumentation in order to solve a problem. The problem is presented as a challenge in which students must connect the theory they learn in the classroom with its practical application. This method is used in finance courses (featuring problems related to credit risk), social responsibility courses (featuring ethical problems) and technology courses (featuring problems related to information security).
- f) Agile methodologies. Several professors used agile methodologies as part of the hands-on activities in the applied research methodology and creative skills for business courses. They were also used in the entrepreneurial area to promote creative thinking among students. The most common agile methodology tools used by the professors were design thinking, Lego serious play and scamper.
- g) Project-based learning. This collaborative learning methodology is used to solve a problem, address a need or generate a product or service. For example, in the strategic management course, students are asked to design a practical case study that integrates the concepts and models presented in the course. In this case, they must identify a course of action that takes into account the potential impact of the decisions made in different areas of the organization in the short and medium term.
- h) Game-based learning. This method uses games as a means of instruction and is mostly used in the strategy and leadership area where professors design their learning units to include competitive activities and elements of gamification. During synchronous classes, students are presented with short, easy challenges and are awarded extra points if they answer questions or contribute to class discussions

#### 4.3. Methods to ascertain Prior Knowledge

These methods organize students' existing knowledge. They are usually used in synchronous sessions. In this category, professors mentioned the following instructional methods:



- a) Exploratory questions. Professors can ask students questions to promote the search for meaning during synchronous class sessions. The professors frequently used this method to identify the students' perspectives, values and beliefs regarding a topic. For example, professor 28 mentioned that in personal development courses, he asked students questions that were oriented toward self-exploration and self-knowledge. Moreover, professor 14 stated that in finance courses, exploratory questions were aimed at finding out whether students had mastered specific financial concepts. In marketing courses, exploratory questions were related to the students' prior knowledge.
- b) Brainstorming. This method aims to demonstrate what students already know about a certain topic. The professors indicated that it is an appropriate method to deal with a specific topic or to identify a solution to a problem. This method is helpful in critical thinking courses to learn about student comments and ideas about a specific topic.
- c) Questionnaires. This tool identifies students' self-perception, self-evaluation or knowledge of a topic to be covered during the course. For example, in the personal development course, professors stated they used self-assessment instruments to help students identify their level of emotional intelligence, leadership styles, personality types and level of critical thinking. Professors also used questionnaires in technology courses to evaluate the students' prior knowledge of certain topics.

#### 4.4. Methods that promote Understanding through the Organization of Information

These methods promote the understanding of the topics covered through graphic or audiovisual elements and aim to visually and audibly impact the students. In this category, professors mentioned the following instructional methods:

- a) Videos or songs related to the topic or context. Marketing professors used short, updated videos to engage students and invite them to reflect on and discuss topics during the synchronous class session. This method also includes the design of explanatory videos. The professors themselves created videos to highlight essential points or to explain complex issues more in depth. Another relevant variation of this method is the use of videos and songs related to the historical context. Specifically, in the geopolitics course, songs (musical hits) are associated with historical events as a strategy to simplify dense and complex readings.
- b) Visual organizers. Professors use graphic design applications to create these organizers using freely available templates. Visual organizers often use well-designed and colorful graphics to explain hierarchies and other complex ideas.
- c) Cognitive maps. These are used to express thoughts through graphics that can vary depending on the content, common variations include mind maps, concept maps and argument maps. Some professors indicated that they used cognitive maps as an aid to help students associate ideas more easily. For example, in the critical thinking course, professor 6 introduced a controversial topic for students to consider and they had to explain and support a conclusion on that topic. This conclusion needed to be supported by reasons, objections and refutations arranged logically and hierarchically in a diagram with certain characteristics.
- d) Storytelling. This method is used to tell a story that can have an impact on students. According to professor 30 in the Entrepreneurship course, "the cases were built with storytelling based on the students' experiences, taking into account domestic and international cases. Students heard the story of an entrepreneur and then answered the question: what did he or she do to grow?" Finance courses also use this method to provide information about cases of success or failure due to financial decisions.

#### 4.5. Methods that Use Digital Tools

These methods use digital channels or platforms that facilitate online interaction between professors and students. In this category, professors mentioned the use of online applications. These applications gather synchronous responses from all students. The most-used online applications mentioned were Kahoot, Mentimeter, and Quizizz. Professor 14 stated, "these applications are gamified. They have their own game elements such as the factors of time, score and a winner's medal. Besides that, professors have access to the answers of all participants and can share the report with all of them. The didactic use of WhatsApp is also evident as a means to share audio or short videos and also to share news and receive feedback. Another application mentioned was Flipgrid which allowed students to present their ideas on a topic in a more dynamic, audiovisual way without having to learn how to edit videos. In the professional presentations course, it was used to demonstrate students' communicative competence. This method also encompasses the use of the Google Workspace for Education platform's applications such as Google Documents, Presentations, Spreadsheets, Drive, Forms and Jamboard. Professors might be more familiar with these applications because they use other Google products.

## 5. Conclusion and Implications for Practice

This study has identified the most valued instructional methods used in a Hispanic business school. This study was based on the perceptions of professors during *emergency online teaching* caused by the COVID-19 pandemic. In addition, it identified the effect of these methods on some areas of specialization as well as patterns of use that differed based on professors' different experiences and took into account if the class sessions were synchronous or asynchronous.

In order to better identify the instructional methods, they were grouped into five categories: group methods, active methods to contribute to the development of competencies, methods to ascertain prior knowledge, methods that promote understanding through the organization of information and methods that use digital tools. The results showed that professors used many different instructional methods during synchronous and asynchronous sessions. Similarly, there is evidence of a relationship between the professors' academic areas and the types of instructional methods used. In strategy and leadership courses, there is a preference for group methods (workshops, debates and forums) and active methods (case studies, simulations and application projects). In the case of finance, accounting and economics courses, professors highlighted group methods (workshops and debates) but also used active methods such as case studies and the flipped classroom. In marketing, sales and social

responsibility courses, the professors mentioned that they used group methods (debates, forums and workshops) and active methods such as case studies. In the operations, logistics and ICT courses, group methods such as workshops, debates and forums were highlighted as well as active methods such as case studies and the flipped classroom. The Entrepreneurship area was dominated by group methods such as workshops (mainly with guest speakers) and debates and active methods such as case studies, the flipped classroom and simulations. Moreover, the Entrepreneurship area highlighted the ascertaining methods of exploratory questions and brainstorming.

Based on these results, this study proposes a reference model of instructional methods for higher education based on professors' experiences during *emergency online teaching*. This may be useful for management schools at undergraduate and graduate levels. The study proposes 20 instructional methods for both synchronous and asynchronous online learning sessions. The most recommended instructional methods for synchronous sessions are workshops, case studies, debates and exploratory questions. Less frequently recommended instructional methods are simulations, agile methodologies, brainstorming, game-based learning, problem-based learning, questionnaires, videos related to the topic, digital applications, feedback and storytelling. As for asynchronous sessions, the most preferred methods are forums, the flipped classroom, application projects, project-based learning, the design of visual organizers and cognitive maps.

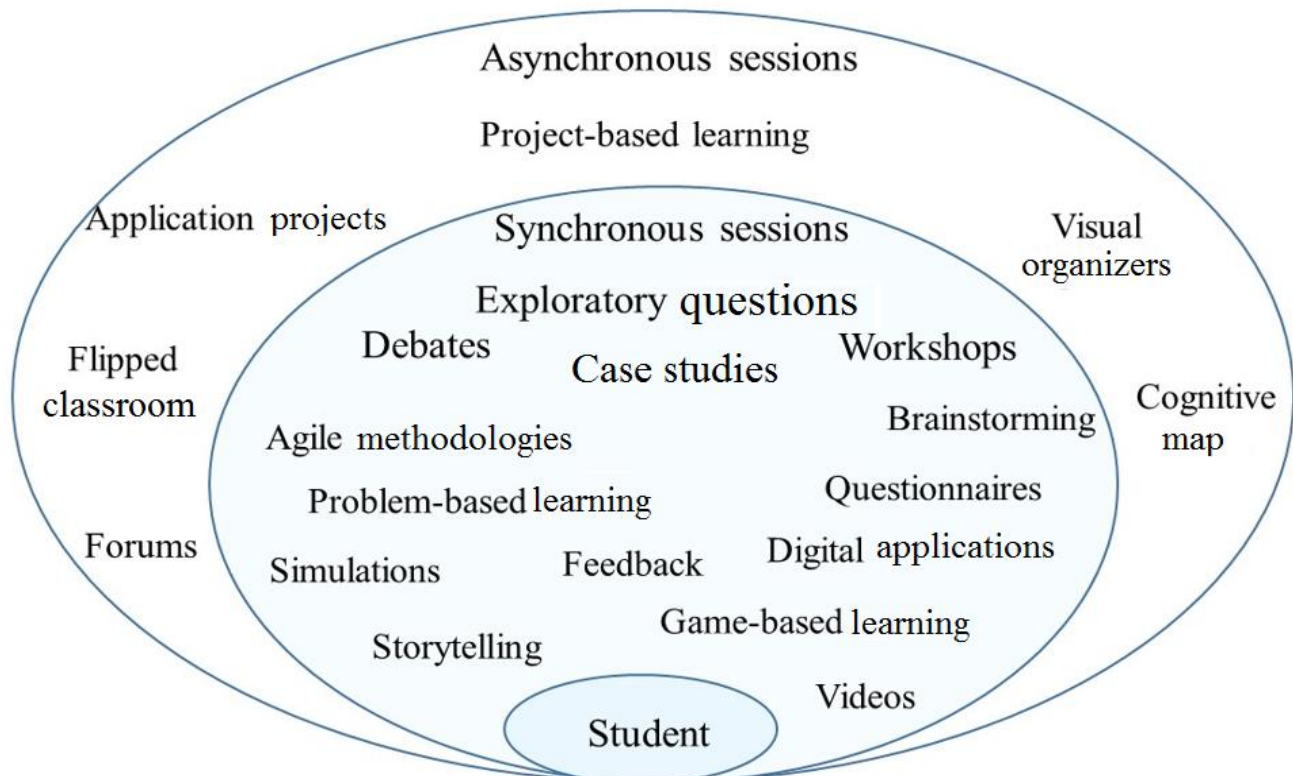


Figure 1. Preferred instructional methods for emergency online teaching.

Based on the study's findings, various practical recommendations are proposed. First, educational institutions can emphasize different instructional methods according to whether the sessions being taught are synchronous or asynchronous. On the one hand, the synchronous sessions should encourage the educational community's use of workshops, case studies, debates and exploratory questions. On the other hand, the asynchronous sessions should be based more on the use of forums, the flipped classroom, application projects and cognitive maps. Second, it is important to consider that preferred instructional methods can vary according to the discipline and the specific courses being taught. Classifying this study's practical recommendations by the professors' academic areas and by the categories of instructional methods, Table 4 shows which instructional methods academic institutions should promote. Finally, it is interesting to highlight that all of these methods can be integrated into in-person teaching in the future, enhancing the learning process and students' acquisition of competencies.

The originality of this study lies in its focus on the academic perspective regarding the most valued and used instructional methods during *emergency online teaching* due to the COVID-19 pandemic. This study also provides empirical evidence of the preferred instructional methods at a Hispanic accredited business school that provides educational services in the context of a less developed national educational system. This is relevant because most of the previous research has been conducted only in developed countries.

## 6. Limitations and Recommendations for Future Research

The study has some limitations. First, the qualitative approach does not allow data to be generalized. The sample size was relatively small and only one business school in Peru was considered. Similarly, the study was based on the perceptions of the professors who participated in the study but did not address their students' perceptions. Finally, the study focused on the experiences that professors revealed to the authors but they may not have shared all the available information.

Based on the results of the study, future research should focus on conducting an in-depth analysis of the relationship between specific instructional methods and the types of competencies that must be developed in order to obtain empirical evidence on the most appropriate methods to develop specific competencies. It is necessary to analyze the effectiveness of specific instructional methods for teaching business management because previous literature addressing this topic has mainly focused on other disciplines. Furthermore, we suggest conducting further research at other business schools in the region and comparing the results with the students' perceptions.

Finally, we recommend analyzing if there are any differences in the use of instructional methods in different regions using a cross-cultural analysis.

**Table 4.** Practical recommendations for instructional methods, by academic area

Professors' academic area	Category of instructional methods	Instructional methods
Strategy and leadership	Group methods	Workshops Debates Forums
	Active methods	Case studies Simulations Application projects
Finance, accounting and economics	Group methods	Workshops Debates
	Active methods	Case studies The flipped classroom
Marketing, sales and social responsibility	Group methods	Debates Forums Workshops
	Active methods	Case studies
Operations, logistics and ICT	Group methods	Workshops Debates Forums
	Active methods	Case studies The flipped classroom
Entrepreneurship	Group methods	Workshops (Mainly with guest speakers) Debates
	Active methods	Case studies The flipped classroom Simulations
	Methods to ascertain prior knowledge	Exploratory questions Brainstorming

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