10. Leading universities in COVID times: the leadership style of university presidents in Mexico

Liderar universidades en tiempos de COVID: el estilo de liderazgo de rectores en México

Maria Alejandra Garza-Lopez [1] @ iD   Rosalba Badillo-Vega [2] @ iD

[1] Independent Researcher, México.
[2] Universidad Autónoma de San Luis Potosí, San Luis Potosí, México

ABSTRATC

The COVID-19 pandemic posed significant challenges to universities worldwide, affecting governance, institutional management, and the daily lives of academics. In the context of a health emergency, university leadership emerged as a critical factor for achieving institutional goals, operating under atypical conditions that required assertive decision-making with limited information. This study employs a qualitative approach, using content analysis of speeches delivered by 40 presidents of Mexican universities in response to the COVID-19 pandemic. The speeches, covering the period from April to October 2020, were analyzed through the lens of the Full Range Leadership Theory to identify leadership styles. Coding was performed using MAXDA software to ensure systematic analysis. The findings reveal that Mexican university leaders employed a combination of transformational and transactional leadership styles to address the challenges posed by the pandemic. Notably, the use of individualized consideration emerged as a predominant theme in the presidents' speeches, followed closely by efforts to inspire and unify the university community.

Palabras clave: University presidents; Transformational Leadership; Transactional Leadership; COVID-19

Liderar universidades en tiempos de COVID: el estilo de liderazgo de los rectores en México

RESUMEN

La pandemia de COVID-19 trajo desafíos a las universidades de todo el mundo. Estas dificultades abarcaron desde la gobernanza de una organización, la gestión y la vida diaria de los académicos. En el contexto de una emergencia sanitaria el liderazgo es un elemento crítico necesario para alcanzar estos objetivos y se ejerce en condiciones atípicas que exigen una acción asertiva con poca información. Nuestra investigación utiliza un enfoque de cualitativo, llevada a cabo a través de un análisis de contenido de discursos ofrecidos por 40 presidentes de universidades mexicanas, con respecto a sus acciones debido a la COVID-19. Los discursos son de abril a octubre de 2020. Utilizamos la teoría de "The Full Range of Leadership" para codificar primero los estilos de liderazgo reflejados en los discursos, utilizando el software MAXDA. De acuerdo con los resultados, los líderes de las universidades mexicanas utilizaron una combinación de liderazgo transformacional y transaccional para actuar en respuesta a la pandemia de COVID-19 y su impacto en sus instituciones. Este informe sugiere cómo prevalece principalmente el uso de consideración individualizada en los discursos de los presidentes, seguido de inspirar a la comunidad universitaria.

Palabras clave: presidentes universitarios; Liderazgo transformacional; Liderazgo transaccional; COVID-19

Liderando universidades em tempos do COVID: o estilo de liderança dos presidentes de universidades no México

RESUMO

La pandemia de COVID-19 trouxe desafios para as universidades em todo o mundo. Essas dificuldades abrangeram desde a governança de uma organização até a gestão e a vida diária dos acadêmicos. No contexto de uma emergência sanitária, a liderança é um elemento crítico necessário para alcançar esses objetivos e é exercida em condições atípicas que exigem uma ação assertiva com pouca informação. Nossa pesquisa utiliza uma abordagem qualitativa, realizada por meio de uma análise de conteúdo dos discursos proferidos por

40 reitores de universidades mexicanas, em relação às suas ações devido à CO-VID-19. Os discursos são de abril a outubro de 2020. Utilizamos a teoria de "The Full Range of Leadership" para codificar, primeiramente, os estilos de liderança refletidos nos discursos, utilizando o software MAXDA. De acordo com os resultados, os líderes das universidades mexicanas usaram uma combinação de liderança transformacional e transacional para agir em resposta à pandemia de COVID-19 e seu impacto em suas instituições. Este relatório sugere como o uso da consideração individualizada prevalece principalmente nos discursos dos reitores, seguido de inspirar a comunidade universitária.

Palavras-chave: Presidentes de universidades; Liderança transformacional, Liderança transacional, COVID-19

Diriger les universités en temps de COVID : le style de leadership des présidents d'université au Mexique

RÉSUMÉ

  LLa pandémie de COVID-19 a apporté des défis aux universités du monde entier. Ces difficultés ont couvert des aspects allant de la gouvernance d'une organisation à la gestion et à la vie quotidienne des universitaires. Dans le contexte d'une urgence sanitaire, le leadership est un élément essentiel pour atteindre ces objectifs et s'exerce dans des conditions atypiques qui exigent une action assertive avec peu d'informations. Notre recherche utilise une approche qualitative, réalisée à travers une analyse de contenu des discours de 40 présidents d'universités mexicaines, concernant leurs actions en réponse à la COVID-19. Les discours datent d'avril à octobre 2020. Nous avons utilisé la théorie de «The Full Range of Leadership» pour coder d'abord les styles de leadership reflétés dans les discours, en utilisant le logiciel MAXDA. Selon les résultats, les dirigeants des universités mexicaines ont utilisé une combinaison de leadership transformationnel et transactionnel pour répondre à la pandémie de COVID-19 et à son impact sur leurs institutions. Ce rapport suggère que l'utilisation de la considération individualisée prédomine principalement dans les discours des présidents, suivie de l'inspiration de la communauté universitaire.

Mots clés: Présidents d›université ; Leadership transformationnel ; Leadership transactionnel ; COVID-19

1. INTRODUCTION

Proactive leadership becomes increasingly relevant during times of crisis, such as pandemics or natural disasters (Hannah et al., 2009). More expectations are placed on leaders during crises, especially in terms of their behavior and communication. Therefore, leadership in crisis demands the integration of planning, response, and learning from past decisions, all of which are scrutinized under the public eye (Wooten & James, 2008).

While this is true for all types of organizations, we will specifically describe how these decisions are made, and subsequently affect outcomes, within the context of universities. The study of leadership within universities has gained space in academia. However, research is mainly focused on the profiles of university leaders in different university systems (see Breakwell & Tytherleigh, 2010; Harper et al. 2017; Tolliver & Murry, 2017). In Mexico there are few studies in this regard (see Acosta Silva 2010; Badillo-Vega, 2022; Badillo-Vega & Buendía-Espinosa 2020; López Zárate 2007), even when in this country the position of the university presidents plays an important role not only within the university but also in the political and social sphere (López Zárate, 2014).

In addition, leadership models of business administration cannot be reproduced in universities, especially during crises; this is due to specific characteristics and the nature of the crisis (see Musselin, 2007). Thus, this paper pretends to answer what kind of leadership styles were exercised by Mexican university presidents in the context of the COVID-19 pandemic. Even though the analysis is presented at a descriptive level, it becomes relevant due to the limited number of studies that attempt to reconstruct the phenomenon of leadership in Mexican universities. First, this paper discusses the role of the president's office in times of crisis. Next, we describe the leadership styles of different university presidents, explain the methodology behind our qualitative data, and lastly present our findings. It is important to add, that this article specifically presents the qualitative results of a broader mixed-method research.

2. THEORETICAL FRAMEWORK

2.1. Universities and COVID-19

COVID-19 was a major problem for organizations such as universities. Some universities closed temporarily while others remained open by transitioning their teaching online. This rapid shift caused various consequences. According

to the World Bank (2020) over 220 million post-secondary students have suffered an interruption to their education due to COVID-19. Numerous universities implemented measures to overcome the hurdles presented by the pandemic. For example, in Dutch universities the numbers of foreign students decreased; as a response to this, new scholarships and pedagogical arrangements were offered. These changes helped students adapt to the new form of education. Moreover, measures such as replacing assignments for hands-on activities/internships and reshaping curriculum while reducing face to face education became more commonplace (De Boer, 2021). For instance, countries behaved differently, to mention some examples: in Italy, Agasisti and Soncin (2020) showed the prominent role of governance and communication that ensure the continuity of higher education during COVID-19.

They also suggest IT plays a crucial role in the redesign of services for the administrative staff (Agasisti & Soncin, 2020). In the United States, universities l found their faculty leveraging from learning technologies, transforming their practices to more flexible practices and being creative to adapt with hybrid technologies (Anderson & Berhtram, s.f.). In Spain, three important gaps in the context of universities learning were identified: 1) the use of electronic devices and access to internet; 2) time and quality of internet access, and 3) digital competencies of professors to use educative platforms to create and provide content and activities (Fernández Enguita, 2020). However, the case study in Germany is different as most of the debate centered around access and privacy when learning online (Kerres, 2020). Moreover, Zawacki-Richter (2020) highlights an urgent need for a legal framework that regulates digital education in Germany as well.

In Latin America, COVID-19 introduced uncertainty as well as cutbacks in public financing (UNESCO-IESALC, 2020). Only one out of two households in Latin America has internet access, this in equal access to the internet shows there are still fundamental barriers to entry for even the most rudimentary educational and health resources (UNESCO-IESALC, 2020). Universities recognize these social inequities and attempt to visualize their effect on school life. These issues quickly become the responsibility of the institution and, subsequently, they will often provide attention to students without proper access. For instance, public universities in Argentina responded to the pandemic not only by adjusting their teaching, learning, and scientific research but also their community engagement strategies. This in turn helps promote collective rights and

benefit socio-community development (Perrotta, 2021, p.30). During the pandemic, scrutiny of academic and pedagogical practices as well as of policy instruments became more open. Perrotta (2021) suggests this new discourse around inequalities of connectivity, distance-learning tools, gender gaps were brought up to discussion with the pandemic.

   In Mexico, Suárez-Zozaya (2013) further adds that numerous facets of universities and social life have been affected, both in the public and private sectors. Public universities, for instance, play a strong part in the social and political roles of the country and are seen as enablers of democracy and citizenship. Leading a public university, especially during a pandemic, presented a challenge in upholding social and political norms. One of the first actions taken by universities in response to COVID-19 was the formation of the National Agreement developed by the National Association of Universities and Higher Education Institutions (ANUIES) and the Vice Ministry of Higher Education. In this agreement, three fundamental commitments were made: to safeguard the health of their communities and society in general, to ensure the continuity of academic services, and to make available to society their scientific and technical capacities, and in some cases, their infrastructure and equipment to address the pandemic (ANUIES, 2020). Similar to Argentina, universities in Mexico faced other political consequences such as the postponement of the new General Law for Higher Education as well as the cancellation of trusts and funding for research projects (Ordorika, 2020). This in turn increases the research gap between Mexican universities and other developed countries (Vargas, 2011). Moreover, increased politicization supports the relevance of studying the leadership styles of university presidents in Mexico while facing COVID-19 particularly.

2.2. The role of Presidents in times of crisis

   The role of university presidents has changed over the course of the pandemic. Tolliver and Murry (2017) state that being a president requires specific skills, particularly where effective administration, qualities of leadership, interpersonal communication, as well as organizational and strategic management are all required. Moreno-Freites and Pérez-Ortega (2019), and Badillo-Vega (2022) argue that leadership acquires relevance in the process of university management and the way in which processes for change and transformation of the student community are presented. In this context, Tolliver and Murry (2017)

further suggest the importance of studying the profiles, actions, and results of the decisions made by university leaders.

Given the importance of the position in any university, some information, and characteristics have been studied before. To mention some, in German universities, presidents are mostly male and with a degree in natural and exact sciences (Bieletzki, 2018). University presidents in the UK are mostly male with degrees from traditionally elite universities such as Oxford and Cambridge and have held a position as vice-chancellors or directors before, people from outside the institution are rarely recruited for this position (Breakwell &Tytherleigh, 2010). On the other hand, according to López Zárate (2010) in Mexico there are four professional profiles that are often sought out as potential presidential hires: 1) institutional trajectory within the university; 2) academic trajectory; 3) professional trajectory external to the university and non-academic; and 4) trajectory in politics external to the university. These trajectories provide unique and specific skills that add to the administrative and leadership profiles able to occupy the office of president (López Zárate, 2014).

Likewise, it is also important to analyze the roles of university leaders in crisis situations. Badillo-Vega and Buendía-Espinosa (2020) posit there are five roles that emphasize the links between university and larger society: strategists, communicators, motivators, politicians, and legitimizers. These roles emphasize the influence of presidents goes even further than the traditional social roles of universities (Badillo-Vega et al., 2019; Badillo-Vega, 2022). Moreover, Yu and Sun (2018) assert that, university presidents must have a mastery of education to succeed in their roles. Therefore, the role of the president requires constant coordination with government and industry, which becomes even more important in crisis situations.

Universities require an effective suite of institutional policies and practices to address issues in times of crisis. Wang and Hutchins (2010) as well as Wooten and James (2008) affirm that presidents preserve and maintain operational, financial, and resource capacity promoting organizational resilience by acting with integrity in the face of crisis. Mitroff, Diamond, and Alpaslan (2006) mention that an organization will recover quickly from crisis if leadership coordinates with a well-trained interdepartmental crisis management team. In this context, bold and proactive leadership becomes more relevant (Hannah et al., 2009).

Hence, Fortunato, Gigliotti and Ruben (2018) suggest that leadership has a responsibility to analyze results and implement corrective actions that can

prevent future recurrence in a similar context once such crisis is over. Universities that collaborate with governments and develop coordinated strategies augment the recovery and response to the crisis (Rizal, 2017). Rizal (2017) also argues that university leadership should collaborate with other institutions, both of national and international prominence, to aid in disaster management.

For all these reasons, it is necessary for university leaders to play a political role that provides the organization with the tools to respond to crisis (Badillo-Vega et al., 2015). Moreover, in the so-called "post-pandemic", Tesar (2020) suggests that in the future planning and strategy is critical and that the virus should be considered part of everyday university life. Wang and Hutchins (2010) further emphasize the relevance of research to inform state and local policy change.

2.3. Leadership style and presidents

House et al. (2004) define leadership as the ability to influence and motivate others to contribute. Leaders must possess skills that embody their attitude toward people and society such as commitment, determination, confidence, accountability, responsibility, activity, efficiency, success, influence, and resilience (Soroka et al., 2019). Furthermore, Bendermacher et al. (2017) mention that vision, strategy, commitment, knowledge, and management skills are the critical elements that make up leadership.

Leadership styles exercised by university presidents has an impact on institutional management and the way in which they address the processes of change (Moreno-Freites & Pérez-Ortega, 2019). Contemporary universities are considered organizational actors. Universities have their own structures of governance and administration, they make their own decisions, interact with their environment, and are accountable to larger societal forces (Krücken & Meier, 2006). Therefore, the organization and empowerment of first line managers are critical for universities in the beginning phases of a crisis. Kezar and Eckel (2008) further explain that leadership styles describe the way in which leaders work, as well as their approach to motivate their collaborators and induce change in the organizations to which they belong. For the aims of this research, we selected the Full Range of Leadership (FRL) (Bass & Bass, 2008), as in the leadership literature, it was identified as a concept that can help reconstruct the phenomenon of university leadership. Using this concept, Bass and Bass (2008) sought to combine all leadership approaches into three styles: transformational, transactional, and laissez-faire.

In the case of the transformational style, Kouzes and Posner (1995) highlight five practices: challenging current processes, inspiring a shared vision, allowing others to act, serving as a role model, and encouraging followers. According to Bass (1990) and Bass and Riggio (2006) this leadership style has four main dimensions: 1) Idealized influence – which is the degree to which leaders behave in an admirable fashion to garner respect and trust from their staff; 2) Inspirational motivation – where leaders use symbols, metaphors, or appeals to emotion to promote a shared collective vision and expectations; 3) Intellectual stimulation – which refers to leaders who inspire creativity and innovation, as well as active participation in decision making and problem solving; and 4) Individualized consideration – about the needs of the staff they oversee, provide individualized support through the role of mentors or coaches, and offer active listening.

Brown and Moshavi (2002) argue that transformational leadership largely reflects the traditionally collegiate model, where mutual support and respect, autonomy, and collective decision-making are shown. Transformational leaders are defined, in part, on their ability to provide a vision for the institution and to distribute their leadership. A leader's vision helps a university better meet its core needs and stated goals (Conger & Kanungo, 1998). When in crisis, these abilities become more important due to the necessity of providing an overview of the future while solving the problems now.

Furthermore, Bendermacher et al. (2017) assert that the most appropriate type of leadership for expert organizations is one that is sensitized to specific procedures and practices, values, and requirements of its staff. Likewise, Judge and Piccol (2004) argue that transformational leadership acts as a more effective mechanism to achieve a diverse array of goals within the organization. Thus, several studies (Badillo-Vega, 2018; Noorshahi & Sarkhabi, 2008; Spendlove, 2007) have agreed that the most appropriate style for the needs of universities is transformational leadership, as it favors and promotes collegiality, autonomy, and participation in decision-making by colleagues. Moreover, transformational leadership is particularly effective in times of transition and crisis (Bedell-Avers et al., 2008; Shamir & Howell, 1999).

The second style of the FRL is the transactional style, which aims to monitor and control employees with the help of rational or economic means (Bass & Bass, 2008). There are three dimensions that conceptualize transactional leadership: 1) Contingent reward, which depends on leadership's provision of psy-

chological or material rewards to staff for the satisfactory execution of their role; 2) Management exception - active, where leadership monitors performance, setting standards, monitors deviations from these standards, and takes necessary corrective measures; and 3) Management by exception - passive, where leaders adopt a passive approach and intervene only when problems become serious (Bass & Bass, 2008). Transactional leaders provide support and assertive resources to staff in exchange for their efforts and performance to achieve the proposed objectives.

Laissez-faire is the third leadership style of the FRL. Bass and Bass (2008) describe laissez-faire as ineffective leadership behavior or the absence of leadership. Leaders avoid responsibility, delay decision-making, and do not attend to the needs of their organization, especially in university contexts. However, Badillo-Vega (2018; 2022) outlines how expert organizations and leaders can empower their collaborators and how laissez-faire leadership allows the out coming of leaders.

In this way, using the FRL theory as a framework for analysis, our study applies it to the leadership strategies of university presidents during crisis times. Specifically, we aim to answer the question: what leadership styles do university presidents exercise when facing COVID-19 pandemic?

3. METHODOLOGY

The study presented for the purposes of this article is part of a broader research project that aimed to analyze leadership styles and organizational innovations in Mexican universities in response to the COVID-19 pandemic (e.g Villela et al. 2021; Badillo-Vega & Garza López, 2020; Badillo-Vega & Ramírez, 2022; etc.). This paper focuses on the initial phase of that study, providing a general descriptive analysis of the leadership styles of presidents of public universities in Mexico.

In terms of leadership, our research uses Bass and Bass (2008) theory, the FRL, as a foundation. FRL theory is built around three leadership styles as part of a continuum: transformational, transactional, and laissez-faire. For our analysis, research applying that theory in the academic setting was reviewed, specifically in the analysis of university presidents (Badillo-Vega & Buendía-Espinosa, 2020; Liu et al., 2020; Huang et al., 2020; Moreno-Freites & Pérez-Ortega, 2019; Parvin, 2019).

Following Middlehurst, Kennie, and Woodfield (2010) as well as Pilbeam and Jamieson (2010), who point out the importance of the symbolic role of university management in the representation of the organization through discourse and narrative, we examine speeches from presidents of 40 Mexican public universities belonging to the National Association of Universities and Higher Education Institutions (ANUIES). The research was based on the analysis of speeches given by their presidents on their actions to address the pandemic. The speeches were sought and selected from the period between March and October 2020, and were obtained from institutional websites, social media, and local media outlets. Multimedia speeches were transcribed for textual analysis and interpretation. The maximum duration of these speeches was 28 minutes, with the longest transcription amounting to 3,769 words.

With 40 speeches in text format, we proceeded with a deductive content analysis (Mayring, 2010), coding them with the help of MAXQDA software version 2020. We chose deductive content analysis for the present study because it is characterized by categories derived from theoretical models. In our study, we used the transformational, transactional, and laissez-faire leadership styles as categories to classify each case study. The coding was carried out by a team of four members to ensure its reliability. Each fragment was coded in parallel, both in terms of leadership style and the specific component of each style (Transformational Leadership: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration, and Transactional Leadership: contingent reward, management by exception active, and management by exception passive). All speeches were coded, and in order to ensure the reliability of the content analysis more precisely and to avoid subjectivity when coding the speeches, the results of the content analysis were evaluated in detail by two co-researchers.

The individual characteristics of the presidents, the organizational features of the universities, and the contexts in which these are embedded are analyzed in the broader research. Since there are very few studies analyzing university presidents' leadership in Mexico in general (see López Zárate, 2014, Badillo-Vega, 2022, etc.), and in crisis situations in particular, the relevance of this analysis lies in presenting, at a general level, the leadership strategies used by university presidents to communicate the actions taken in response to the pandemic.

4. RESULTS

Over the course of the COVID-19 pandemic, university leaders most frequently employed transformational leadership (264 codes), followed by transactional leadership (152 codes), while laissez-faire leadership was not found in the discourses. These findings are consistent with Conger and Kanungo (1998) who state that transformational leaders offer a vision that allows them to move forward easier and can better focus on the fundamental needs of the team. Hence, in crisis situations active leaders are needed to guide the organizational actions. In the Table 1, we present the frequencies in which each style of leadership was found in the discourses.

Table 1. *Frequency of leadership style coded*	
Leadership Style	**Frecuency**
Transformational Leadership	**264**
• Individual consideration	102
• Inspirational motivation	84
• Intellectual stimulation	40
• Idealized Influence	38
Transactional Leadership	**173**
• Management by exception – active	82
• Contingent Reward	69
• Management by exception – passive	22

Source: Own elaboration.

To better show the leadership strategies founded in the speeches of the university presidents, the analysis is presented at the level of the components of each leadership style, beginning with the transformational leadership.

Individualized consideration is the most frequently coded component of transformational leadership in the analyzed speeches. In the analysis we identified two themes related to individualized consideration in crisis situations: gratitude for the response of the university community to the pandemic, and concern for the health and well-being of the university community. The surveyed presidents expressed concern for the needs of their constituents in their speeches, provided support, and listened attentively to their staff through messages of thanks and by talking about the health of their colleagues and staff members. In the words of some presidents:

> "I would also like to make a very special acknowledgement and thank you to our workers who have been required to continue their presence in our facilities and who have been forced not to follow the universal stay-at-home recommendation." (R6.8)

> "Today I also want to remember those who have left us, those who could not overcome the disease. But they remember us because we continue to resist". (R4.3)

> "...I send you this embrace from your home to wherever you are with the certainty that we will surely be seeing each other very soon in full health and enjoying our beloved university until then." (R5.5)

These excerpts expressed issues about the health of the community. Additionally, a recurrent theme in the speeches are presidents' expressed desire to establish relationships with staff (Badillo-Vega & Buendía-Espinosa, 2020), as well as to meet the internal and external expectation of them (Tolliver & Murry, 2017).

Inspirational motivation is the second most codified transformational component (84 codes). The content analysis identified three themes that are present in the inspirational motivation: 1) the fostering of a sense of community and solidarity to confront the pandemic, 2) the appeal to professionalism and responsibility that continue to drive academic and institutional development, and 3) the motivation to maintain standards that allow the continuity of the institution. We can identify this motivational role in excerpts such as:

> "...It is certainly an unprecedented challenge, but I am confident that each and every one of us in this great university family possesses a great capacity for resilience and a deep love for this institution." (R6.3)

> "To the professors and researchers of the University, faithful to their principles of commitment, responsibility, professionalism, and solidarity in the face of this world and national contingency, I exhort them to give their best effort to bring the academic semester to a good end...". (R2.1)

> "We will certainly overcome this contingency; we have learned from it and will continue with the excellence that has distinguished U.4.3...". (R4.3)

The third component of transformational leadership is intellectual stimulation. In the analyzed speeches, we coded this element 40 times. University presidents invite their student, academic and work communities to be creative. We identify two primary themes that explain how university leaders intellectually stimulate their communities in times of crisis. First, how presidents motivate their collaborators regarding the migration of teaching and learning processes to an on-line modality and the use of technology developed by universities. Second, how creativity in the teaching community leads to changes in the pedagogical models because of that migration to virtuality. In their words:

> "...starting this coming semester, we will incorporate, with the invaluable support of our teachers, online practical teaching through different strategies such as virtual practices through the use of simulators, videotaping of practices carried out by teachers, among others that allow us to apply practical knowledge from our homes." (R3.3)

> "We face this contingency, aware of the great challenges they bring, but with integrity, but with open-mindedness and optimism, [...] because we have prepared in time before the global mega trends, promoting innovation and digital development in our learning development process." (R3.1)

> "I want to greatly appreciate the work of the teachers who during these months and particularly during these weeks have dedicated much of their intelligence, of their work, of their determination in preparing the study plans and programs for this semester. In designing didactic strategies that allow this semester to fulfill its objectives and to develop strategies so that our students have meaningful learning and make sense in this world". (R4.1)

The last component of transformational leadership was idealized influence. We identify thirty-eight codes in the analyzed speeches. Two themes were identified for idealized influence in the presidents' messages: the first is providing hope, aspiration, as well as improvement, and the second are messages that offer certainty about the continuity of the institution's activities. The following statements stand out where presidents are interested in generating this bond of trust with their followers:

> "Finally, I want to send a message of hope, that at the end of this crisis we will all be more aware, more empathetic, in a word, that this pandemic will revive our fundamental humanism". (R6.8)

> "To guarantee the quality of our academic activity and the permanence of our students I want to announce that we will implement four strategies to ensure the work of our professors and our students that will allow us to maintain academic continuity at all educational levels and avoid the problems derived from the lack of means to continue with online classes." (R4.1)

The second most codified leadership style in the speeches of the university presidents was transactional leadership (152 codes). Concerning its components, management by exception - active is the most coded transactional component (82 codes). Presidents primarily use active management by exception in their speeches in reference to health actions and regulations inside and outside the university in crisis times, emphasizing the outsized role of the university in its community (Badillo-Vega 2018). We can identify this in the following excerpts:

> "We have collaborated non-stop in our commitment to THE STATE by demonstrating our university social responsibility, carrying out diagnostic tests, producing inputs and disinfectant products, medical equipment and prototypes of respirators, not to mention building a mobile hospital with the generous cooperation of the business sector and the U1.2 foundation". (R1.2)

> "U.4.4 responds, TV U.4.4 has become a benchmark of genuine and truthful public television, just as radio U.4.4 has offered varied programming and direct information in the voice of specialists and academics from our house of studies." (R4.4)

The second most coded component of transactional leadership is contingent reward (69 codes). In our analysis of the speeches of the university presidents about their actions, two themes were identified: 1) the measures taken to train and motivate staff by monitoring of online academic activities, and 2) the administrative and economic adjustments made to allow the transition to virtuality. This can be identified in the following excerpts:

> "...as a result of a reengineering process of the appointment hours that the Institute has, next week the Institute and Section 60 of the SNTE will jointly issue several calls that include processes such as: basification, compacting, increase of hours among others, which will benefit our teachers." (R4.1).

> "The university council approved a radical modification to the administrative academic calendar of our institution, [...] the April and July vacations were brought forward, with the purpose of having a month of protection in our homes, attending only to the urgent". (R3.1)

> "... train our teachers in digital tools, on August 25 we will start training more than 10,000 teachers in the use of online pedagogical approach technologies...". (R4.1)

These phrases express the importance that presidents give to the exchange made between leaders and collaborators by providing psychological or material rewards for the satisfactory performance of their functions (Bass & Bass 2008), especially when this effort is being made under extraordinary conditions such as the health crisis due to COVID-19.

The last component of transactional leadership, management by exception – passive, was coded 22 times. We identified two themes related to this component in the pandemic time: first, following health guidelines issued by government authorities and second, the willingness to collaborate with distinct levels of government to address the pandemic. This was denoted in phrases such as:

> "U6.4 does not have a hospital and neither does it have large and sophisticated facilities, it would be fully prepared to provide the conditions for the State Government and the Federal Government, through the Ministry of Health, to provide the space required for a field hospital, in the event of a possible requirement". (R6.4)

> "The university recognizes their effort and confirms that we will return to the classroom as soon as the health authorities determine it in the next few weeks. (R5.7)

The third leadership style, laissez-faire, was not found in the president's speeches. This could be because giving a statement or speech of actions before the COVID-19 is already an action of leadership, in contrast to laissez-faire leadership where there is the absence of leadership per se. In the face of a crisis, evading responsibility, delaying decision-making, and not considering the needs of collaborators (Bass & Bass 2008) would result in negative consequences for all members of the organizations and their university communities. Peer or media pressure could also be crucial factors to diminish this mentioned absence of leadership, as well as the international relevance of COVID-19.

5. CONCLUSIONS

Our analysis suggests that Mexican university presidents during the COVID-19 pandemic make use of transformational and transactional strategies and emphasize the active role leaders of an organization should face in a crisis. The transformational strategies refer to messages of gratitude for the response of the university community to the pandemic and concern for the health and welfare of personnel. Messages also promote a sense of community and solidarity, and appeal to professionalism and responsibility. Additionally, academic, and institutional development as well as motivation to maintain standards are key focal points mentioned. As demonstrated by their speeches, university presidents intellectually stimulate their communities in the transition to virtuality and technological development. Pedagogical changes have been instigated by this shift. Presidents of Mexican universities offer hope, aspiration, and messages of certainty about the continuity of the institution's activities.

President's discourses also emphasize the implementation of health actions and regulations inside and outside the university, emphasizing the role of the university in the community through transactional strategies. Moreover, measures taken to train and motivate staff, the monitoring of online academic activities, and administrative and economic adjustments are all made at the same time as the transition to virtuality.

Studying how Mexican university presidents responded to COVID-19 helps us understand the leadership styles they exercised and how their actions were connected to these leadership styles. However, the social and political conditions in which Mexican universities operate are hardly comparable to those of other countries. Therefore, this study is limited to the Mexican context and the functions of public universities in Mexico.

  This study has other potential limitations. As previously mentioned, the results presented in this article highlight the general leadership strategies of the university presidents. The individual characteristics of the presidents, the organizational features of the universities, as well as the context in which they operate, are subjects of analysis in the broader research. This analysis is limited to providing a general overview of the leadership strategies and styles of presidents of public universities in Mexico in the time of COVID-19. The topic requires further, more specific study to analyze and guide actions for future crises. Hence, our analysis examines university presidents' speeches; future research can be enriched by the perspective of collaborators on the role and style of leadership that presidents exercise in the face of the crisis.

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