Experiences in higher education in times of pandemic: a systematic review of the literature

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Abstract

This paper aims to review the literature related to the experience of students and teachers in Higher Education in times of the COVID-19 pandemic. A Systematic Literature Review was conducted using the scientific databases Scopus and Web of Science, following the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) guidelines, structured in three stages of the experience: Pre-Core, Core and Post-Core. The results provided by the 105 studies selected for the review are heterogeneous and diverse in terms of the positive and negative factors and elements of the Higher Education Experience in the global health crisis. The method with the highest presence in the selected studies was quantitative with 51.4% and its main instrument was the questionnaire. Likewise, social interaction in the context of Higher Education is one of the most negatively impacted dimensions of the transition to distance education, with important implications for the mental health of students and teachers.

KEYWORDS: Experience, Higher Education, Pandemic, Review.

1. Introduction

According to Langegård et al. (2021), after the COVID-19 pandemic, the use of Distance Education through digital tools supported on the Internet in different universities and higher education institutions has expanded exponentially. An exceptional situation unprecedented in the history of humanity, in educational systems and in teaching and learning activities around the world following the outbreak and the obligation to close university campuses (Ali, 2020; Alsoud & Harasis, 2021).

Educational institutions implemented learning technology platforms and tools with different capabilities, approaches, and strategies to address pedagogical processes (Carter et al., 2020, Silva García & Rodríguez Pérez, 2023). In this sense, the moderating effect of the expansive outbreak implies the acceleration of digitalization in higher education, significant experiential changes in academic communities and their ways of interacting, within an emerging transformation of society.

For Durmaz et al. (2012), Distance Education is defined as the use of technology to deliver, support and develop learning and teaching through digital tools, and involves communication and interaction between students and teachers using online content and tools. For students at the higher education level, the new landscape required adapting to the demands and learning needs in the midst of the health emergency and entering online study environments supported by dynamic, open and pragmatic learning (Marinoni et al., 2020; Rodríguez, 2023). Consequently, the emerging forms implemented in crisis require a reflection on the very experience of the architects involved in the educational processes and their iterations, complex phenomena that map and exchange relationships based on a changing reality, thus Distance Education renews

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non-shelf learning is not free of problems due to its nature and its technological base added to a state of global isolation. In this order of ideas, technology as an essential factor in this context transforms and conditions social relations from the environment in which they are executed.

In the context of higher education, institutions applied different means in the search for solutions to cope with the impacts of the pandemic and enable students to achieve real learning outcomes (Petchamé et al., 2021; Guerra et al., 2023). In response to the crisis, universities have been challenged at all levels, and teachers faced the need to apply technological tools to provide distance learning (Zapata-Garibay et al., 2021). For Laher et al. (2021), the transition to emergency distance learning impacted students' mental health, in addition to the anxiety and fear ascribed to the crisis; the pandemic has added a new dimension to students' experiences and mental health.

To stop the pandemic, the measures adopted began to generate negative and harmful effects on the health of students in terms of anxiety, decreased physical activity, depression, interpersonal interactions, proliferation of sedentary behaviors, and stress (Petchamé et al., 2021; Montoya-Restrepo et al., 2022). These restrictions have affected students' learning and the way they relate to their professors and peers; consequently, there has been a notable decrease in the social aspects of university life (Laher, et al, 2021).

Widespread digitization establishes the need for new approaches to higher education in the context of continuous scientific and technological development: reconfiguring educational processes, redesigning the role of the teacher and transforming the management approaches of educational organizations (Kobysheva et al., 2021).

The disruptions of the health crisis were not limited to the functioning of the educational system, they also directly impacted the learning experience of students in the access to elements and materials necessary for training and research, in addition to presenting disadvantages related to greater possibilities of distraction, technological limitations and absence of social interaction with professors and the university community in general (Alsoud & Harasis, 2021). Additionally, according to Hebebci et al. (2020), students in the middle of distance learning presented difficulties in conducting group projects and activities because of the lack of socialization and interaction on campus.

On the other hand, according to Sadeghi (2019) the advantages of distance learning lie in studying from anywhere at any time, saving a significant amount of money by avoiding commuting, flexibility in selecting courses, and overall time savings. Consequently, the impacts on higher education since the crisis have configured alternative scenarios of interaction in the

development of training programs based on disruptive experiential transformations around the changes implied by the transition to distance learning. On the other hand, for Robayo-Pinzon et al. (2023) although the transformative capacity of artificial intelligence (AI) in different sectors is advancing rapidly, one of the sectors in which there has been an increase in these developments is the educational sector; the role of students as possible co-creators of these developments has not yet been considered.

In this sense, the objective of this article was to carry out a Systematic Literature Review of the publications that explore, describe, and analyze the experiences and factors that affect the teaching processes in Higher Education in times of pandemic.

1.1 The experience and the consumption process

In educational environments, the focus of the processes is centered on the student, on his or her development and on the generation of skills and competencies that will enable future opportunities, either to continue studying or to find a job market that will enable him or her to satisfy his or her economic and personal development needs. In this context, the student can be seen as the main consumer of education and the one who is directly affected by all the actions determined in this field (Grinard, 2023).

In this scenario, the relationship with students and their families is understood through the understanding of a wide range of stimuli that influence the multiple experiential responses they experience in relation to the needs that motivate them to carry out the selection process of the program they wish to study (Becker & Jaakkola, 2020; Lemon & Verhoef, 2016; Sabogal Russi & Rojas-Berrio, 2019; Schmitt, 1999; Verhoef et al., 2009). The above implies the involvement of rational and emotional judgment within the consumption situation, which is an outcome of a value co-creation process from encounters with it (Lusch & Vargo, 2006; Pang, 2013; Sabogal Russi & Rojas-Berrio, 2019; Vargo & Lusch, 2008).

Thus, higher education can be analysed from the perspective of service marketing, since service is understood as: "the application of specialized competences (knowledge and skills) through acts, processes and actions for the benefit of another entity or of the entity itself" (Lusch & Vargo, 2006, p. 2); in this case, of the population that benefits from training in this type of knowledge; it focuses on the exchange of intangible goods seen as specialized knowledge that is delivered to the consumer. However, this raises the need to understand the interaction between the customer and the organization, so that the consumer lives a consumption process (before, during and after) around the experience itself (Lusch & Vargo, 2006).

From this perspective, the student-customer is conceived as a co-creator of value, since his experience

starts from the pre-consumption (Pre-Core) moment in which he establishes a series of encounters prior to the provision and effective enjoyment of the service, experiences the consumption process (Core) of the intangible associated with the training in knowledge and skills provided by higher education, and ends continuously in the post-consumption (Post-Core) situations (Becker & Jaakkola, 2020; Lusch & Vargo, 2006).

In this sense, non-deliberate and spontaneous responses and reactions to certain stimuli correspond to the definition of Customer Experience, starting from the ordinary to the extraordinary in accordance with the customer's responses to them, which are contextualized in three consumption processes, Pre-Core, Core and Post-Core (Becker & Jaakkola, 2020; Jain et al., 2017; Vasconcelos et al., 2015). Daily experiences that will be evaluated by each actor involved in the service logic and will allow the metaphorical construction of the journey map, describing that consumption process (Pre-Core, Core and Post-Core), anticipating unsatisfactory encounters, and improving the experience from the organization's initiative and value offer (De Keyser et al., 2020; Edelman & Singer, 2015; Hamilton and Price, 2019; Lemon & Verhoef, 2016).

Encounters that, from the physical realm, Bitner et al. (1990), are going to describe as satisfactory or unsatisfactory in the face of possible service failures and dissatisfaction of needs, which within the logic of experience marketing. Verhoef et al. (2009), Lemon and Verhoef (2016), Becker and Jaakkola (2020), De Keyser et al. (2020), and Rincon-Novoa et al. (2021), will raise under the concept of touch points, to subsequently integrate them into the experience journey map, in order to be able to describe the interconnection of these encounters through a sequential map that will allow to see in aggregate form the achievement of the Pre-Core, Core and Post-Core process in the provision of the service.

2. Materials and Methods

To carry out the research objective, a pragmatic (Dewey, 1927; 1948) and abductive (Saunders et al., 2007) exercise was contemplated with a documentary analysis strategy from a Systematic Literature Review with the methods suggested by the literature for the field of Administration (Chicaiza-Becerra et al., 2017; Kitchenham et al., 2010; Paul and Criado 2020; Pérez Rave et al., 2012), whose purpose was to explore the experience of students and teachers in higher education in times of pandemic, and was conducted using the scientific databases: Scopus and Web of Science (WoS), following the checklist of the Reporting Items for Systematic Reviews and Meta Analysis (PRISMA) guidelines.

The pandemic experience was structured in a three-moment process: Pre-Core, Core and Post-Core, in relation to each moment of the experience: pre-pandemic, pandemic and post-pandemic, to apply to the educational context a perspective from a consumer point of view.

2.1 Search strategy

Table 1 below presents the search strings applied at each moment of the pandemic experience. Information analysis window from August 2019 to August 2022, based on the publication dates of the articles. The search strategy was developed using the Patient, Intervention, Comparison, Outcome (PICO) methodology. The population was limited to students and professors in higher education in the context of the pandemic generated by COVID-19. Based on keywords selected and validated as descriptors, a combination of terms was structured to construct the search string.

Table 1 - Search strings applied in pre-pandemia Pre-Core (Pre-pandemic), Core (Pandemic) and Post-Core (Post-pandemic).

Experience moment	String	Time window of observation	Quantity in WoS	Quantity in Scopus
Pre-Core Pre-pandemic	Higher Education OR Research OR Third Mission AND Educational Experience OR Student Experience OR Learning Experience OR User experience OR Customer Experience	2018-2019	32	91
Core Pandemic	Higher Education OR Research OR Third Mission AND Educational Experience OR Student Experience OR Learning Experience OR User experience OR Customer Experience AND Pandemic OR Coronavirus OR SARS-CoV-2 OR COVID-19	2020-2021	35	85
Post-Core Post-pandemic		2022	369	272

2.2 Selection criteria

Studies eligible for review met the following selection criteria:

1. Contains information regarding the higher education-only experience of students and faculty in the context of the pandemic.
2. Contains information related to the teaching, research, and outreach domains of higher education in the context of the pandemic.
3. It is empirical research.
4. It is an investigation limited to one of the following modalities of higher education: face-to-face, virtual, or mixed.

Figure 1 presents the flow chart of the literature review studies through four stages: identification, selection, eligibility, and inclusion.

3. Results

A total of 884 records were obtained from the search of scientific databases. After elimination of duplicate records, the titles and abstracts of the articles were examined according to the inclusion and exclusion criteria. Next, 130 articles were selected for full reading and 25 were excluded for lack of empirical evidence. Finally, 105 relevant studies were selected for the final analysis.

The predominant method in the selected studies was quantitative with 51.4%, these investigations constitute non-experimental research, and are located within the survey research strategy. Their main instrument was the questionnaire.

On the other hand, the qualitative method represents the second position (35.2%); these investigations are based on different research strategies: phenomenological (59.1%); case study (27.3%), action research (9.1%) and grounded theory (4.5%). For the qualitative method: interviews (58.3%), questionnaire (33.3%), focus group (4.2%) and life histories (4.2%), were the main instruments. Finally, in the case of mixed methods with 11.4%, the research strategies used were: concurrent (66.7%), sequential exploratory (22.2%) and sequential explanatory (11.1%). The main instruments in the mixed methods were questionnaire (61.5%), interviews (23.1%) and focus group (14.4%). The overview of the methods and their strategies is presented in Figure 2. In this sense, the search for understanding the phenomenon of experience involves multiple strategies adapted to each study in the midst of changes in higher education, a scenario in which institutions were not prepared for an emergency and has represented a challenge at the methodological level in research where it is required to make use of technologies supported mainly on the Internet.

The main dimensions for which findings were found were Student Support, Learning Experience, Flexibility, FE-HE (further education-higher education) Transition, Technology in Education, Mental Health and Motivation, Communication, Change Management and Digital Inequality, which are described sections: Pre-Core, A pre-pandemic approach to experience; Core, Application of online learning and experience in higher education; and Post-Core, More recent approaches to experience, indicating at what point in the experience they are most involved.

3.1. Pre-Core: A pre-pandemic approach to experience

For Oktavia et al. (2018), social networks allow students to interact more intensively through a range of tools, including in support of their learning process, connect within a dynamic and rich social environment, rather than learning individually.
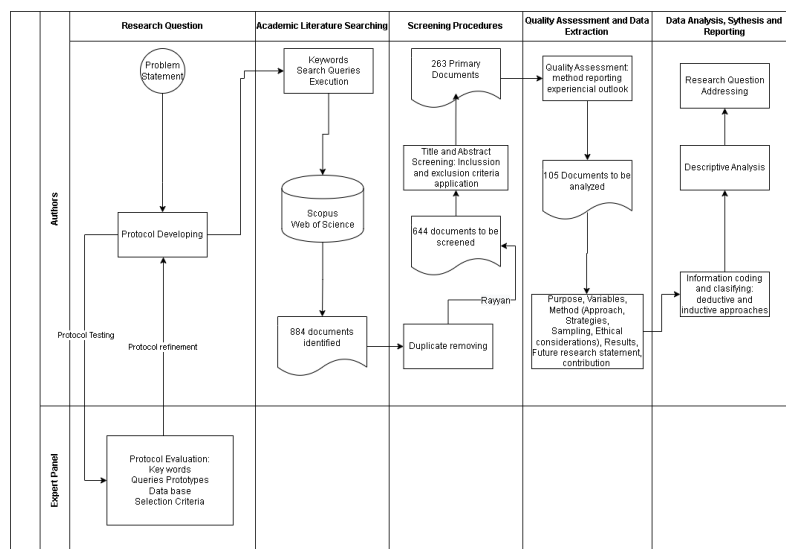

Figure 1 - PRISMA flow chart of study selection.

Moreover, according to Baik (2018), educational institutions should seek to balance their efforts and actions from developing strategies to attract international students to finding ways to address shared challenges and improve the quality of the international student experience internally and externally to universities.

According to Power and Handley (2019), a best practice model for seeking to integrate interdisciplinarity into the higher education Student Experience involves six enablers of interdisciplinarity from a synthesis of literature and data from an expert panel they developed: positioning, personas, environment, reward, behavioral factors, and communication.

For Bunn et al. (2019), temporal fragmentation and accelerating spatiotemporal individualization, including in terms of online communication, learning, and disposition, are described as generating new forms of inequality for students; spatiotemporal equity in higher education must recognize the complex histories and difficulties faced by students from less favorable backgrounds in accessing higher education.

Additionally, according to Young et al. (2020), students who identify as generally anxious and those who do not identify as generally anxious experience negative emotions at some points, within the first semester; therefore, to support toward a positive transition to higher education, universities require consideration of support toward students for the development of emotional intelligence skills and strategies that strengthen abilities to process and resolve negative experiences, develop resilience, and promote honesty about challenges, inconveniences, fears, and anxieties about the educational experience.

On the other hand, for Sandu and Gide (2019), the integration of AI-Chatbots in the education sector facilitates the achievement of student-centered learning; however, there are negative effects of using the technology, such as addiction; moreover, their introduction means that students will interact with Chatbots more frequently than with teachers.

According to Chiu and Lee (2019), to facilitate students' experiential learning, firstly, experiential learning should be transformed and empowered to be beneficial to all, and secondly, bridge the gap to extend experiential learning from inside to outside the classroom environment; in other words, transform experiential learning into a mutually beneficial nature by extending its boundaries beyond the personal level.

Additionally, according to Parusheva et al. (2018), the use of social networking tools in learning and education, should no longer be considered as innovation, it should be a daily practice for HEIs, which aims to improve the quality of the learning process and the interactive nature of learning, the great interest of students in the educational service.

3.2 Core: Application of online learning and experience in higher education

For Sailer et al. (2021), a fundamental factor affecting students' academic experiences and, consequently, the satisfaction of psychological needs within learning processes is the way in which teachers implement digitally mediated learning.

From the students' perspective, the type of online learning, the academic load, and the assignment of activities, acquire special relevance for them and the continuity of their training (Eberle & Hobrecht, 2021). Therefore, the implications in higher education from the application of distance learning have repercussions not only at the academic level, but also at the social level in relation to access to higher education and the continuity of training processes.

Amid the pandemic, Higher Education Institutions have been faced with various issues in relation to their readiness for teaching and learning with digital technology; teachers and students require an infrastructural, institutional, and organizational environment, conducive to online teaching and learning (Liu et al., 2020).

Live videoconferencing represents the most noted and valued online learning opportunity for university students according to Aristovnik et al. (2020). On the contrary, the majority of students consider the Asynchronous Online Learning facilities, supported by presentations, video recordings and written communication through forums and chats on different learning platforms, to be functional (Eberle & Hobrecht, 2021).

For Liu et al. (2020) adoption and implementation are a complex process in which learning technologies, academia, context and educational strategies influence and interact. Therefore, the application of online learning by teachers constitutes a significant element in the adaptation in the face of the crisis and the transformation of the experience in higher education from distance learning and the implications for students from the contextual emergence.

For Feldman (2020), implicit in understanding student experiences is always the question of what caring practices teachers should employ in the future to better support student learning; therefore, within an educational institution what has emerged in relation to an ethic of care is the need for connectivity and interaction that goes beyond the systemic organization of the institution.

On the other hand, according to Gaikwad and Kulkarni (2021), students find online learning more convenient than physical classrooms and allows regularity in class attendance with significant challenges and technical difficulties; students perceive that online learning generates physical stress, at the same time, learning is hindered by more distractions.

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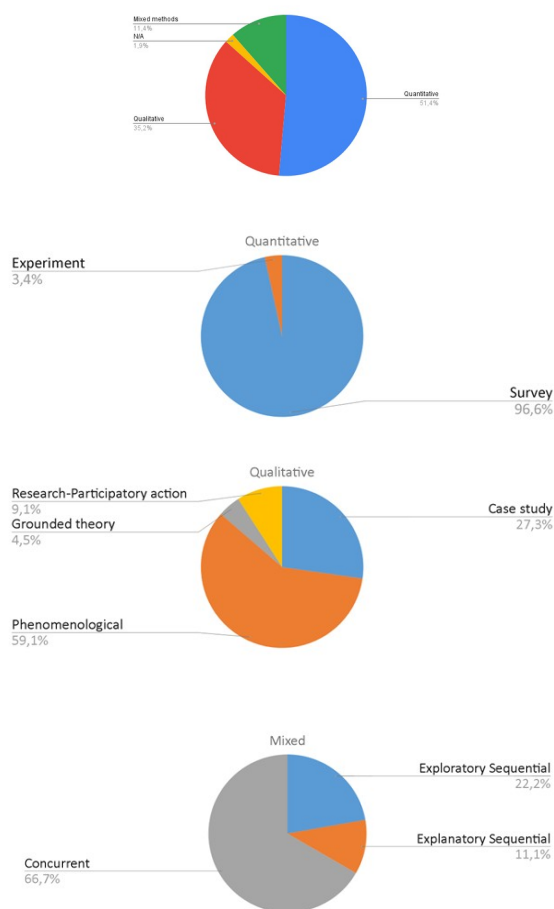
Figure 2 - Results of the methods and research strategies of the selected studies.

For Laher et al. (2021), strategies to manage COVID-19, including confinement, have caused disruption to students' learning and to the ways in which they interact with staff and peers; the situation involved sudden changes in daily life and limited opportunities for social interaction; responses to online learning were emotionally charged with the following words that reflect the difficulty experienced by students: stressful, tense, numbing, frustrating, heart-breaking, exhausting and so on.

In that vein, according to Maqableh and Alia (2021), there are large numbers of students dissatisfied with the online learning experience, learning materials, interactions with peers and professors, exams and quizzes; they recommend that each educational institution create an Academic Continuity Planning Committee (ACPC) to review and evaluate online learning, adopt new technologies, monitor the learning process, and adopt flexible and appropriate methodologies to facilitate learning.

According to Katz et al. (2021), the essential elements inscribed to student competence and aptitude in Distance Learning are (1) continuous high-speed Internet connectivity and devices to connect, and (2) the ability to relate and communicate with teachers and instructors; however, students' challenges with Internet connectivity and digital devices during remote learning were associated with lower remote learning proficiency.

3.3 Post-Core: More recent approaches to experience

For Banda (2022), by conceptualizing learning as a means of making use of retained and acquired knowledge, attitudes, and skills over time, COVID-19 became an obstacle to accessing such learning; the threat to students' basic needs, including safety and social needs, not only hindered their self-realization through the achievement of Higher Education, but also affected other psychological dimensions of their lives.

According to Kalmar et al. (2022), when changing from face-to-face education to online teaching, neither teachers nor students were prepared for the consequences of the changes; on the one hand, teachers suddenly had to become experts in recording videos, navigating digital tools they had not used before, redesigning some of their course content: learning objectives, materials and assessment methods, to be aligned with these new digital tools and students were affected, especially in courses where teamwork is essential.

Similarly, for Bartolic et al. (2022) students in more difficult study situations, with no space to study, high noise, and poorer health, reported greater disruption to their learning than their peers who lived in less difficult conditions; student learning was impaired in courses that moved to distance learning and student vulnerabilities may have been exacerbated by public health responses to Sars-CoV-2.

According to Nguyen et al. (2022), there is an interrelationship between university support, student experience, and university brand image; student experience is one of the factors that positively and significantly affect university brand image.

Finally, according to Smith et al. (2022), the exploration of self-identification in an academic role through the COVID-19 pandemic was organized into three broad themes: (1) a disturbed academic identity; (2) sense-making and resources for identity work; (3) nostalgia for what was lost; thus, the teaching team devoted additional time to online activity, to the detriment of personal time and the fulfillment of other expectations of assigned roles; In that sense, the COVID-19 pandemic has materialized the importance and the risk of not having talented academics motivated by research, science and the advancement of knowledge, who adapt their teaching to provide students with an excellent, quality education, regardless of the vicissitudes and challenges facing humanity.

4. Discussion and Conclusions

The analysis of the selected studies indicates that the impact of the COVID-19 pandemic on higher education experiences has profound implications on educational processes from change and adaptation to emergency distance learning with mixed results. The perception and satisfaction in relation to distance learning by students is heterogeneous in terms of positive and negative aspects. However, social interaction in a university context is one of the most affected and deteriorated dimensions from the transition to distance learning with implications on the mental health of students and teachers.

In addition, the research showed that the main approach to address experiences in higher education in times of pandemic is based on primary sources. The use of quantitative methods through the questionnaire survey research strategy predominates. However, mixed, and qualitative approaches are showing increasing interest.

In terms of limitations, most studies indicate that the analysis conducted corresponds to specific cases and particular contexts. Therefore, more research is needed to generalize repetitive behaviors to any type of educational institution. On the other hand, the unpredictability of the pandemic does not allow the evaluation of a previous distance education scenario, so only the experience of the service as a response to the health crisis is evaluated.

Additionally, there are multiple variables that have been modified due to the management performed to face the pandemic, such as qualification methodologies, network connection problems, connectivity devices and others. Finally, from the managerial implications and in future research, there will be a concern for blended learning and hybrid models in the midst of changes and interactions mediated by technology and the implications and privacy risks that this implies in higher education, especially its impact on learning. Thus, there is a need to continue the search by institutions for strategies and dynamic balance points amidst the lessons left by the pandemic and experiential risks. Also, the need for connectivity, hardware and specialized software to accompany teachers in training; in addition, studies related to the timely training of teachers to provide this type of training will be developed.

References

Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, *10*(3), 16.

Alsoud, A. R., & Harasis, A. A. (2021). The impact of covid-19 pandemic on student's e-learning experience in Jordan. *Journal of Theoretical and Applied Electronic Commerce Research*, *16*(5), 1404-1414.

Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, *12*(20), 1-34.

Baik, C. (2018). The international student experience in australian higher education: Ongoing challenges and emerging issues. *Higher Education Forum*, *15*, 91-103.

Banda, T. (2022). Student Experiences in Accessing Learning Higher Education During Covid-19: Case of a University in Malawi. *South African Journal of Higher Education*, *36*(4), 188-204.

Bartolic, S., Matzat, U., Tai, J., Burgess, J. L., Boud, D., Craig, H., Archibald, A., De Jaeger, A., Kaplan-Rakowski, R., Lutze-Mann, L., Polly, P., Roth, M., Heap, T., Agapito, J., & Guppy, N. (2022). Student vulnerabilities and confidence in learning in the context of the COVID-19 pandemic. *Studies in Higher Education*, 1-13.

Becker, L., & Jaakkola, E. (2020). Customer experience: fundamental premises and implications for research. J*ournal of the Academy of Marketing Science*, *48*, 630-648.

Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The Service Encounter: Diagnosing Favorable and Unfavorable Incidents. *Journal of Marketing*, *54*(1), 71-84.

Bunn, M., Bennett, A., & Burke, P. J. (2019). In the anytime: Flexible time structures, student experience and temporal equity in higher education. *Time and Society*, *28*(4), 1409-1428.

Carter, R. A., Rice, M., Yang, S., & Jackson, H. A. (2020). Self-regulated learning in online learning environments: strategies for remote learning. *Information and Learning Science*, *121*(5/6), 311-319.

Chicaiza-Becerra, L., Riaño-Casallas, M. I., Rojas-Berrio, S. P., & Garzón-Santos, C. (2017). Revisión Sistemática de la Literatura en Administración. *Documentos Escuela de Administración y Contaduría Pública FCE – CID*, (29), 1-18.

Chiu, S. K., & Lee, J. (2019). Innovative experiential learning experience: Pedagogical adopting Kolb's learning cycle at higher education in Hong Kong. *Cogent Education*, *6*(1).

De Keyser, A., Verleye, K., Lemon, K. N., Keiningham, T. L., & Klaus, P. (2020). Moving the Customer Experience Field Forward: Introducing the Touchpoints, Context, Qualities (TCQ) Nomenclature. *Journal of Service Research*, *23*(4), 433-455.

Dewey, J. (1927). *The public and its problems: An essay in political inquiry*. Penn State Press.

Dewey, J. (1948). *La experiencia y la naturaleza*. Fondo de Cultura Económica.

Durmaz, A., Dicle, A., Cakan, E., & Cakir, Ş. (2012). Effect of screen-based computer simulation on knowledge and skill in nursing students' learning of preoperative and postoperative care management: a randomized controlled study. Computers, Informatics, Nursing: CIN, 30(4), 196–203.

Eberle, J., & Hobrecht, J. (2021). The lonely struggle with autonomy: A case study of first-year university students' experiences during emergency online teaching. *Computers in Human Behavior*, 121.

Edelman, D. C., & Singer, M. (2015). Competing on Customer Journeys. *Harvard Business Review*, *93*(11), 88-100.

Feldman, J. (2020). An ethics of care: PGCE students' experiences of online learning during covid-19. *Critical Studies in Teaching and Learning*, *8*(2), 1-17.

Gaikwad, H. V, & Kulkarni, S. S. (2021). Unmasking students' learning experiences during coronavirus pandemic. *Journal of Engineering Education Transformations*, *34*(Special Issue), 219-225.

Grinard, M. L. (2023). Tendencias del marketing en línea y su aplicación en la promoción de las instituciones de educación superior. *Revista Saberes APUDEP*, *6*(1), 39-52.

Guerra, A. T., Bruse, M. V., Aguilera, E. R., Sánchez, T. L., Pupo, O. J., & Sosa, M. A. (2023). Experiencias de la educación a distancia durante la pandemia de Covid 19 en Holguín. *Correo Científico Médico*, *26*(4).

Hamilton, R., & Price, L. L. (2019). Consumer journeys: developing consumer-based strategy. *Journal of the Academy of Marketing Science*, *47*(2), 187-191.

Hebebci, M. T., Bertiz, Y., & Alan, S. (2020). Investigation of Views of Students and Teachers on Distance Education Practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science*, *4*(4), 267-282.

Jain, R., Aagja, J., & Bagdare, S. (2017). Customer experience – a review and research agenda. *Journal of Service Theory and Practice*, *27*(3), 642-662.

Kalmar, E., Aarts, T., Bosman, E., Ford, C., de Kluijver, L., Beets, J., Veldkamp, L., Timmers, P., Besseling, D., Koopman, J., Fan, C., Berrevoets, E., Trotsenburg, M., Maton, L., van Remundt, J., Sari, E., Omar, L. W., Beinema, E., Winkel, R., & van der Sanden, M. (2022). The COVID-19 paradox of online collaborative education: when you cannot physically meet, you need more social interactions. *Heliyon*, *8*(1), e08823.

Katz, V. S., Jordan, A. B., & Ognyanova, K. (2021). Digital inequality, faculty communication, and remote learning experiences during the COVID-19 pandemic: A survey of U.S. undergraduates. *PLoS ONE*, *16*(2), 1-16.

Kitchenham, B., Pretorius, R., Budgen, D., Pearl Brereton, O., Turner, M., Niazi, M., & Linkman, S. (2010). Systematic literature reviews in software engineering – A tertiary study. Information and *Software Technology*, *52*(8), 792-805.

Kobysheva, L., Luginina, A., Gafiatulina, N., & Artamonova, Y. (2021). Organization of higher education in context of digitalization: online learning experience at pandemic, development trends. *E3S Web of Conferences*, 273, 12052.

Laher, S., Bain, K., Bemath, N., de Andrade, V., & Hassem, T. (2021). Undergraduate psychology student experiences during COVID-19: challenges encountered and lessons learnt. *South African Journal of Psychology*, *51*(2), 215–228.

Langegård, U., Kiani, K., Nielsen, S. J., & Svensson, P. A. (2021). Nursing students' experiences of a pedagogical transition from campus learning to distance learning using digital tools. *BMC Nursing*, *20*(1).

Lemon, K. N. and Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, *80*(6), 69-96.

Liu, Q., Geertshuis, S. and Grainger, R. (2020). Understanding academics' adoption of learning technologies: A systematic review. *Computers and Education*, 151.

Lusch, R. F. and Vargo, S. L. (2006). Service-dominant logic: reactions, reflections, and refinements. *Marketing Theory*, *6*(3), 281-288.

Maqableh, M., & Alia, M. (2021). Evaluation online learning of undergraduate students under lockdown amidst COVID-19 Pandemic: The online learning

experience and students' satisfaction. *Children and Youth Services Review*, 128.

Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of Covid-19 on higher education around the world. *IAU global survey report*, 23, 1-17.

Montoya-Restrepo, I. A., Rojas-Berrío, S. P., & Montoya-Restrepo, L. A. (2022). Burnout estudiantil por Covid-19: Un estudio en universidades colombianas. *Panorama*, *16*(30), 139-160.

Nguyen, H. N., Nguyen, T. T. P., Phan, T. D., Pham, C. T., & Tran, T. T. (2022). Addressing the interplay amongst university support, student experience, and university brand image at Vietnamese higher education institutions. *Problems and Perspectives in Management*, *20*(2), 311-320.

Oktavia, T., Meyliana, Supangkat, S. H., & Prabowo, H. (2018). A comparison of learning experience: Social learning systems and e-learning systems in higher education institution. I*CIC Express Letters, Part B: Applications*, *9*(12), 1201-1208.

Pang, H.-K. (2013). Service blueprint applying strategy review for SME. Creating Global Competitive Economies: 2020 Vision Planning and Implementation. In *Proceedings of the 22nd International Business Information Management Association Conference, IBIMA,* 3, 1689–1689.

Parusheva, S., Aleksandrova, Y., & Hadzhikolev, A. (2018). Use of social media in higher education institutions - an empirical study based on bulgarian learning experience. *TEM Journal*, *7*(1), 171-181.

Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, *29*(4), 101717.

Pérez Rave, J. P., Jaramillo Álvarez, G. P., & Velásquez Henao, J. D. (2012). ¿ Cómo identificar la literatura "poco-vital" y cuantificar su representatividad? Aplicación al problema del vendedor viajero. *Ingeniería Industrial. Actualidad y Nuevas Tendencias*, *3*(8), 51-60.

Petchamé, J., Iriondo, I., Villegas, E., Riu, D., & Fonseca, D. (2021). Comparing face-to-face, emergency remote teaching and smart classroom: A qualitative exploratory research based on students' experience during the covid-19 pandemic. *Sustainability*, *13*(12).

Power, E. J., & Handley, J. (2019). A best-practice model for integrating interdisciplinarity into the higher education student experience. *Studies in Higher Education*, *44*(3), 554-570.

Rincon-Novoa, J., Rojas-Berrio, S., & Robayo-Pinzon, O. (2022). Citizen experience in public transport: A systematic review and future research agenda. *International Journal of Consumer Studies*, *46*(2), 540–557.

Robayo-Pinzon, O., Rojas-Berrio, S., Rincon-Novoa, J., & Ramirez-Barrera, A. (2023). Artificial intelligence and the value co-creation process in higher education institutions. *International Journal of Human–Computer Interaction*, 1-17.

Rodríguez, C. E. (2023). Reconfiguración de Entornos Personales de Aprendizaje en Educación Superior. *Revista de Educación a Distancia (RED)*, *23*(71).

Sabogal Russi, L. F., & Rojas-Berrio, S. P. (2019). Evolución del marketing experiencial: una aproximación teórica a su definición-Revisión *Sistemática de Literatura. Entramado*, *16*(1), 94-107.

Sadeghi, M. (2019). A shift from classroom to distance learning: Advantages and limitations. *International Journal of Research in English Education*, *4*(1), 80-88.

Sailer, M., Schultz-Pernice, F., & Fischer, F. (2021). Contextual facilitators for learning activities involving technology in higher education: The C ♭ -model. *Computers in Human Behavior*, 121, 106794.

Sandu, N., & Gide, E. (2019). Adoption of AI-chatbots to enhance student learning experience in higher education in India. *2019 18th International Conference on Information Technology Based Higher Education and Training*, 1-5.

Saunders, M. A., Lewis, P., & Thornhill, A. (2007). *Research Methods for Business Students*. Pearson.

Schmitt, B. (1999). Experiential Marketing. *Journal of Marketing Management*, *15*(1/3), 53-67.

Silva García, P., & Rodríguez Pérez, A. (2023). Impacto de la pandemia por COVD 19 en educación básica: Una aproximación desde la perspectiva de estudiantes, padres y maestros. *Diversidad Académica*, *2*(2), 3-29.

Smith, S., Plum, K., Taylor-Smith, E., & Fabian, K. (2022). An exploration of academic identity through the COVID-19 pandemic. *Journal of Further and Higher Education*, *46*(9), 1290-1303.

Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science*, *36*(1), 1-10.

Vasconcelos, A. M., Barichello, R., Lezana, Á., Forcellini, F. A., Ferreira, M. G. G., & Cauchick, M. P. A. (2015). Conceptualisation of the service

experience by means of a literature review. *Benchmarking: An International Journal*, *22*(7), 1301-1314.

Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. A. (2009). Customer Experience Creation: Determinants, Dynamics, and Management Strategies. *Journal of Retailing*, *85*(1), 31-41.

Young, E., Thompson, R., Sharp, J., & Bosmans, D. (2020). Emotional transitions? Exploring the student experience of entering higher education in a widening-participation HE-in-FE setting. *Journal of Further and Higher Education*, *44*(10), 1349-1363.

Zapata-Garibay, R., González-Fagoaga, J. E., Meza-Rodríguez, E. B., Salazar-Ramírez, E., Plascencia-López, I., & González-Fagoaga, C. J. (2021). Mexico's Higher Education Students' Experience During the Lockdown due to the COVID-19 Pandemic. *Frontiers in Education*, *6*, 683222.