


Reflections of Entrepreneurial Students to Address Economic Recovery in a World of Uncertainty: A Case Study at a University in the Occident of Mexico

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Abstract

Guided entrepreneurial learning through work-integrated teaching and practice can support economic recovery and future growth in a world of uncertainty. The objective of this study is to understand and support the development of a positive and resilient entrepreneurial mindset to address the needs of a rapidly changing post-COVID-19 world. This case study examines the entrepreneurial mindset of eighteen students graduating from a private university in western Mexico. Semi-structured interviews, based on the Work Skill Development framework—an international model for Work-Integrated Learning (WIL)—were used to gather information on perceptions, skills, and knowledge gained through their entrepreneurial experiences. The goal was to identify how students perceived their ability to contribute to economic recovery. The data was analyzed using Conversation Analysis methodology and Atlas Ti software. The results indicate that most students encountered a new reality that encouraged them to innovate and develop entrepreneurial activities. They recognized the importance of strengthening competencies, such as teamwork and communication to meet market expectations. This study confirms that the pandemic and evolving economy have driven innovation and continuous improvement, especially in teamwork and communication. Furthermore, it suggests the need to consider psycho-social elements—such as thoughts, emotions, and behaviors—alongside economic, environmental, and cultural factors when addressing entrepreneurial mindset development. These findings have prompted the university to reconsider its approach to entrepreneurship education.

Keywords

Entrepreneurial Students, Work Integrated Learning, COVID-19, Innovation

1. Introduction

The study on entrepreneurship in undergraduate schools dates back almost 25 years, and its main objective has been to develop attitudes and skills in the entrepreneurial field (Silva-Peralta & Rompato, 2020), particularly aimed at seeking solutions to both physical and social needs of the environment that support collective decision-making for the benefit of the community (Espíritu-Olmos, 2011: p. 69). Each semester, hundreds of students are enrolled in courses that involve an entrepreneurial culture, not only limited to undergraduate students majoring in administration and finance. Currently, most undergraduate programs offered by any higher education institution include at least one entrepreneurship course. This dynamic becomes a dialectical activity where the process of learning entrepreneurship becomes a support for local development in the established territory, increasingly approaching and benefiting the community (Jiao, 2011). Therefore, it is necessary to create educational and social scenarios that promote an entrepreneurial culture among undergraduate university students, with the intention of developing their capacities, responsibilities, and skills to achieve greater openness and flexibility as they enter their professional careers (Contreras-Velásquez et al., 2017). Thus, the present work aims to understand and support the development of a positive and resilient entrepreneurial mindset to address the needs of a rapidly changing post-COVID-19 world, using work-integrated teaching as a proven tool to validate the effectiveness of the learning process in entrepreneurship. It is important to note that this study includes students from various undergraduate programs who took entrepreneurship courses during the COVID-19 pandemic period at a private university in western Mexico. To fulfill this objective, a theoretical review has been structured for this research, encompassing conceptual, contextual, and referential aspects that assess the scope of teaching and learning entrepreneurship. Next, a methodological section is presented where selected strategies are detailed, including the employed technique and the established field-work with students. Finally, there is a discussion of results that articulates relationships between the proposed theory and the findings, along with final conclusions. Additionally, limitations of this work are included, as well as some future proposals.

2. Literature Review Ease of Use

2.1. Work Skill Development

Researchers believe that engaging higher education students in research can help them develop work skills that will facilitate their transition into the workforce (Bandaranaike, 2018). However, the employability of graduates from entrepreneurship education is often largely overlooked in educational research literature (Killingberg et al., 2020). Higher education institutions are consistently blamed for lacking soft skill development initiatives, leading many to adopt policies on the development of generic skills (Jackson, 2010). Tension between the roles of educators and practitioners in developing soft skills exists and requires a better

understanding of the interrelationships between academic and professional education to achieve resolution (Plant et al., 2019).

To better align students with the needs of employers, researchers provide a validated employability framework called the Work Skills Development (WSD) framework. This framework effectively articulates work skills and student autonomy (Bandaranaike, 2018). The WSD framework and methodology can be used to compare student performances in Work Integrated Learning (WIL) program, as well as contribute to WIL pedagogy. Studies confirmed that students who completed WIL recognized the development of various work skills through their WIL experience (Orozco-Quijano et al., 2019). WIL allows students to gain confidence, develop work skills, especially in “initiative/motivation to engage”, and reflect on their contributions towards improved workplace productivity (Khampirat et al., 2019).

Studies have also shown that soft skills vary among individuals and can be improved through the application of learning models that focus on cognitive process based on personality type classification (Sunarto, 2015). To effectively lead the development of soft skill, it is important to have a deep understanding of the characteristics and personalities of the employees or students (Ryu & Shim, 2020). There are also studies suggesting the need to go beyond narrow training approaches and include broader concepts of workforce development and “skill ecosystems”. For this approach to be effective, it is necessary to facilitate networks and nurture partnerships among various agents and agencies involved in skill development (Hall & Lansbury, 2006).

2.2. Teaching Entrepreneurship

Entrepreneurship has played a prominent role in university education over the last 10 years, with a focus primarily on being an alternative for future employment (Fejes, Nylund & Wallin, 2019: p. 554). It is mainly oriented toward the current needs of the market (Nylund et al., 2017). Entrepreneurship is defined as the process by which an individual takes innovative risks and identifies a business opportunity to be applied within an established market (Osorio & Pereira, 2011). Although there is no universally agreed-upon definition of entrepreneurship, most authors agree that entrepreneurs should demonstrate innovation, flexibility, and creativity (Rodríguez-Ramírez, 2009: p. 101). As a result, the characteristics of entrepreneurship education should primarily promote teamwork, student-centered teaching, knowledge construction, and innovation. The educator’s role should resemble that of a facilitator, motivator, and promoter who is flexible, empathetic, and an effective communicator (Pertuz et al., 2016), combined with an orientation toward solving sustainable social problems and creating both economic and social value (Silva-Peralta & Rompato, 2020: p. 156). It is also worth noting that students’ primary motivations for engaging in entrepreneurship include starting their own businesses, achieving the satisfaction of being an entrepreneur, reaching personal professional goals, and contributing to their communities through enterprise

(Saavedra & Camarena, 2020: p. 94; Zubizarreta et al., 2014).

The COVID-19 pandemic has significantly impacted entrepreneurial education and mindset in various ways. Studies have identified several challenges, such as changes in business models, disruptions in information flow, weaknesses in strategic planning, and psychological distress—all of which have affected entrepreneurial intention and behavior. For instance, one study found that entrepreneurs demonstrated resilience through a positive mindset, personal faith, continuous learning, and strong relationships despite these challenges (Hutchinson et al., 2021). Another study reported that fear and anxiety about COVID-19 could diminish startup self-efficacy and entrepreneurial intention, although recognizing business opportunities helped encourage entrepreneurial activity (Loan et al., 2021).

The pandemic has had a substantial influence on the development of entrepreneurial competencies, skills, and attitudes (Ndou, 2021). Students' entrepreneurial intentions and behaviors are shaped by their perceptions of the pandemic, with factors like a proactive personality playing a mediating role (Jiatong et al., 2022). The need for new entrepreneurial innovations and shifts in mindset to adapt to uncertainty has been emphasized throughout the literature (Ayandibu & Vezi-Magigaba, 2022).

In this study, the entrepreneurial mindset is conceptualized using the Work Skill Development framework proposed by Bandaranaike et al. (2020), which is recognized for outlining clear, measurable competencies in entrepreneurship education. The entrepreneurial mindset in this framework includes six key skill domains: Initiative and Enterprise, Creativity and Innovation, Lifelong Learning and Future Orientation, Risk Taking and Critical Thinking, Leadership and Management, and Communication and Collaboration.

Furthermore, the crisis has prompted educational institutions to revise how they guide entrepreneurial activity, placing more emphasis on business planning, frugality, and emotional support (Giones et al., 2020). Entrepreneurial initiatives during the pandemic are also seen as a catalyst for new venture creation and business growth, highlighting the importance of resilience, educational strategies, support systems, and a strong entrepreneurial ecosystem (Maritz et al., 2020). In conclusion, the pandemic has reinforced the need for an entrepreneurial outlook to ensure business survival, emphasizing the value of a resilient and adaptive entrepreneurial mindset and education to navigate crises and uncertainty.

2.3. Teaching during Covid-19

The dynamics of teaching changed drastically with the arrival of the COVID-19 pandemic. In Mexico, where this study takes place, it began in March 2020 when a nationwide directive mandated that all classes be conducted virtually for an indefinite period (SEP, 2020). Following the guidelines issued by the World Health Organization (WHO, 2020), all levels of education—from preschool to university—were required to transition to online formats, utilizing various tools and platforms.

One of the primary outcomes of this shift was the emergence of stress, anxiety, and in some cases, depression among both teachers and students (Cabezas-Heredia et al., 2021), along with behavioral issues largely attributed to prolonged isolation (Apaza et al., 2020). Recent studies in Mexico have also highlighted the lingering effects of fear related to returning to in-person activities due to the risk of infection or reinfection (Sánchez et al., 2023: p. 28).

This institution quickly adapted its teaching logistics to maintain continuity in the curriculum. Entrepreneurship courses were no exception and had to be redesigned for virtual delivery. Platforms such as Microsoft Teams and Zoom Workplace were used extensively, along with email and WhatsApp to facilitate communication. Workgroups were formed, initiating what González and López-Cruz (2022) describe as a digital transformation process within a broader digital ecosystem.

The transition was not without its challenges, particularly for entrepreneurship courses that typically involve fieldwork, such as market research. Virtual tools had to be integrated to support these components. In addition, since students from different majors collaborated on projects, team meetings had to be conducted online to ensure progress toward shared objectives.

Despite the difficulties, instructors with years of experience in entrepreneurship teaching adapted their methods effectively. Activities such as Bootcamps and pitch presentations were restructured for the virtual environment, resulting in positive outcomes for most student projects.

This study draws on the experiences of students who, along with other coursework, completed their entrepreneurship training virtually. They engaged with various aspects of entrepreneurship and, by the end of their projects, presented several significant proposals—some of which have already evolved into startups. These efforts align with the philosophy of this institution, which states: “We are a system that seeks innovation in knowledge and educational practices, maintaining a commitment to different cultures and social, political, and economic contexts” (UNIVA, 2021: p. 38).

COVID-19 has introduced major challenges for education systems, amplifying the influence of external factors such as political, demographic, financial, and especially technological trends in the sector (Lekishvili & Kikutadze, 2023). As a result, managing entrepreneurship education through e-learning and blended learning has shown a significant impact on students’ creativity and potential for self-employment (Ofem et al., 2023).

The outbreak has also brought forward new modes of working that may persist in the post-pandemic landscape. Studies have found that changes such as remote work, job insecurity, and reliance on virtual communication can affect employee performance to varying degrees (Narayanamurthy & Tortorella, 2021). In response, researchers have been developing reflective models to teach the entrepreneurial mindset online. These models emphasize creativity, free thinking, and the use of innovative technologies to create new products and services suited for post-COVID markets. The integration of a “growth mindset” into the curriculum rep-

resents a valuable contribution to WIL literature and serves as a strategic response to COVID-19 challenges (Bandaranaike et al., 2020). It is also important to emphasize the value of dedicating time for reflective sessions and connecting students' experiences to theoretical frameworks. This practice fosters the creation of multiple perspectives and deeper learning (Hägg & Kurczewska, 2020).

3. Methodology

To understand the students' experiences with their entrepreneurial learning process—which included two comprehensive courses delivered virtually during the pandemic—18 semi-structured interviews were conducted. These interviews were based on the principles of Work-Integrated Learning and used an adapted guide organized by levels or facets (see Table 1). The data was analyzed using the Conversation Analysis methodology (Sacks, 1995; Alvarez-Gayou, 2009), which emphasizes discourse in interaction, aiming to explain the collaborative practices of those engaged in dialogue (Holstein & Gubrium, 1998; Sacks, Schegloff, & Jefferson, 1974; Denzin & Lincoln, 2013).

Table 1. Guide questionnaire by the work integrated learning level.

Reflection and facet of the WSD work skill	Questions to guide reflection
1) INITIATIVE What is my role?	Based on your experience of two courses on entrepreneurship, in which you participated in a group project, we ask you to reflect on your knowledge and skills acquired on this topic for your personal and professional life. 1.1 What were your initial expectations of this entrepreneurship course? 1.2 Did your expectations change at the end of the second entrepreneurship course? 1.3 Who or what influenced the academic trajectory during these two courses developed?
2) INVENTIVENESS What I need?	2.1 Was your previous knowledge adequate to develop an entrepreneurial project? 2.2 What difficulties did you have in adapting to the use of material and technological resources in your entrepreneurial project? 2.3 What specific resources did you use and why?
3) LIFELONG LEARNING What did I trust?	3.1 What were the expected and desired results of the developed entrepreneurship project? 3.2 What were the new or different ways of doing the tasks and how? 3.3 Was failure ever considered, and for what reasons? 3.4 What contributed most to your learning experience?
4) SELF-MANAGEMENT How do I get organized?	4.1 How did you evaluate and supervise your work within the entrepreneurship project? 4.2 How did you handle stressful situations? 4.3 What was the effect/influence of your role on others?
5) TROUBLESHOOTING How do I create?	5.1 What were the challenges and how were they addressed? 5.2 Did you propose and initiate creative and innovative solutions and how were they? 5.3 What were the underlying circumstances when addressing specific problems?
6) COMMUNICATION AND TEAMWORK How did I relate?	6.1 What steps did you take to understand the diversity within the work team in your entrepreneurial project? 6.2 What is the relevance of teamwork and collaboration? 6.3 What is the role of professionalism and conduct within the work team?

Source: own development, 2021.

The interview guide contained 19 semi-structured questions, grouped into six facets: 1) initiative, 2) inventiveness, 3) lifelong learning, 4) self-management, 5) troubleshooting, and 6) communication and teamwork.

A total of 18 students participated in the study, including 10 women and 8 men. Data saturation was reached with the 18th interview. Atlas Ti (version 23) was used to support the analysis, allowing for a detailed examination of collaborative practices.

The use of Atlas Ti facilitated the organization, coding, and thematic analysis of qualitative data emerging from the interviews (Hesse-Biber & Johnson, 2015; Gibbs, 2007: p. 107). This enabled a deeper understanding of students' perspectives on entrepreneurship and the development of an entrepreneurial mindset.

The interviews were conducted between September 2021 and April 2022. Each session was recorded via video and audio using Zoom Workplace and later fully transcribed.

For each question, responses from three students were selected, randomly to obtain information from all participants without exclusion, to illustrate the conversations and provide deeper insight into their reflections. This approach aimed to directly support and understand the development of a positive and resilient entrepreneurial mindset in the post-COVID-19 context. The key categories that emerged through this methodology are presented in the Results section.

4. Results

Below, we present the most meaningful student responses for each question, supported by analysis using the Atlas Ti software.

1.1. What were your initial expectations of this entrepreneurship course?

Student 3:

“A little more about this, well, it will push us to create some kind of business or an area of opportunity where we can apply the knowledge we have already learned during our studies.”

Student 7:

“Well, since the idea was a project, I expected to continue receiving support and guidance even after the course ended. On the other hand, what I hoped for was to further develop the idea they had by hearing from someone with more experience and knowledge about its potential or certain ideas regarding the project.”

Student 12:

“Generally speaking, it was about how to conceptualize, build and carry out a business or a business plan.”

1.2. Did your expectations change at the end of the second entrepreneurship course?

Student 3:

“Apply knowledge, but at the same time learn new strategies.”

Student 13:

“I believe what made us notice the difference was the change in methodology.”

Student 18:

“Yes, yes, there was a change in the way... you can say that it’s not the same, I mean, to be here meeting with your team to discuss the project.”

1.3. Who or what influenced the academic trajectory during these two courses developed?

Student 4:

“Mainly a classmate, because we always worked on the same project.”

Student 6:

“I think she let us be ourselves and supported us throughout the process as ideas came up.”

Student 7:

“Well, besides myself and how I developed, I mean, how my ideas and enthusiasm changed during these courses.”

2.1. Was your previous knowledge adequate to develop an entrepreneurial project?

Student 1:

“But, I also believe that you learn a lot from reality in this type of subjects.”

Student 4:

“Yes, especially inspiration, inspiration to continue and generate my own ideas and carry them out.”

Student 9:

“Yes, yes, yes... that I can apply right now even to the structure of how to start an entrepreneurship project, so yes, it was appropriate.”

2.2. What difficulties did you have in adapting to the use of material and technological resources in your entrepreneurial project?

Student 6:

“Well, I think the only thing that really hindered us from socializing with the companies we had an agreement with for our project was the pandemic.”

Student 14:

“Well, it was complicated, especially in terms of working as a team. We had to

find ways to work together on a single project and organize ourselves to coordinate each person's tasks and all that.”

Student 15:

“Mostly things like technical issues or when the computer would crash due to too many open resources, power outages, internet connection problems where someone couldn't connect. If it wasn't me, it could be another team member.”

2.3. What specific resources did you use and why?

Student 6:

“Well, basically we focused a lot on the sustainable part, which is what everything in the subject is about, as they are telling you and we mainly focused on that.”

Student 10:

“Well, it was mostly the information.”

Student 16:

“We didn't use much else, but when it came to creating the product, we had to search for a way so that the product would meet the parameters that we had specified in the project.”

3.1. What were the expected and desired results of the developed entrepreneurship project?

Student 2:

“In the second block, it was taken a little more seriously and my project reached a scale where it could compete for the Nobel Prize for Entrepreneurship. There came a point where it was going to become a reality and we had several proposals from investors.”

Student 9:

“The expected learnings were how I can start an entrepreneurial project, and yes, I learned that.”

Student 18:

“Well, what I wanted was feedback on my app or maybe win or get good feedback, but since everything was virtual”.

3.2. What were the new or different ways of doing the tasks and how?

Student 5:

“Well, discipline, resilience, what else? Also, this thing that lately you have to be almost locked up again, communicating again either by phone or searching for people through mail however possible.”

Student 7:

“Well, everything was online... umm, it was a team effort or rather it was a

team effort, but the main idea came from me.”

Student 12:

“Well, since we were a team, we divided some activities and did many works both online and through video calls. We would meet and that’s how we reached the results.”

3.3. Was failure ever considered, and for what reasons?

Student 2:

“Yes, because it was a project that you didn’t have much faith in and it was a project aimed at a high socioeconomic sector of people, which wasn’t as established in Mexico.”

Student 8:

“Yes, it was considered because we started to have fewer customers or there were days when it just wasn’t viable.”

Student 12:

“Yes, at one point and the reasons were that not everyone has the time because our project was a home garden, not everyone has the time to take care of plants, the garden.”

3.4. What contributed most to your learning experience?

Student 2:

“There are very good ideas, but I think we need to do a little more market research or maybe carry out some small tests before making a big investment.”

Student 11:

“The presentations, even though they were virtual, I feel like they prepared you the most because they asked you questions and gave you different perspectives on what you already thought was the direction. It helped correct errors and improve certain aspects that you already had.”

Student 14:

“Well yes, maybe being online and not having face-to-face classes developed skills for all my classmates that we didn’t have.”

4.1. How did you evaluate and supervise your work within the entrepreneurship project?

Student 7:

“Well, I think so, I had a very very good experience, yes, it was a good job.”

Student 9:

“I think so too, because they asked us for a deadline for each project update,

so I think that's why.”

Student 12:

“Well, in evaluating it, I believe that yes, yes, it was a good project.”

4.2. How did you handle stressful situations?

Student 9:

“It was difficult at first, mainly because I believe that teamwork is important in a project, and it was hard for us to agree at the beginning. So, I think that was the part that stressed me out the most. But once I figured out how to work with that team, I started to control my stress more and more.”

Student 13:

“I remember during the pandemic when we had to do the rehearsed pitch for the second subject and there were judges coming. I felt quite stressed because certain data or figures weren't clear to me. But in the end, I trusted in my team as well, knowing they had also given their best and we had built a solid project.”

Student 16:

“But it wasn't just about working as a team; it was about supporting each other too. However, I believe that communication is an important factor here, discussing things and understanding why certain tasks weren't being done.”

4.3. What was the effect/influence of your role on others?

Student 4:

“I was actually the main leader, the one who kept everything in order and tried to contact the teammates. The idea was mainly mine, so they chose me as if I were the boss of the team, so to speak.”

Student 15:

“Well, I think it was an important influence in a way because being the team leader came with certain responsibilities and it also meant listening to them. It wasn't just about delegating tasks but also about listening to their ideas and figuring out what was best for the project and for the team as a whole.”

Student 17:

“...and there were only two of us left from those who had started with this venture. So I think it was vital for me to share my knowledge on how we had initially set up our finances and marketing strategies.”

5.1. What were the challenges and how were they addressed?

Student 8:

“The challenges were like ‘well, now we have to do this activity’, and how we usually approach it is first understanding what the activity is about, what

points it involves, what steps need to be taken to find a solution, and finally, what conclusions can be drawn once it's solved.”

Student 10:

“Well, the challenges as I mentioned before were all about research. So among all team members, we started looking for information on experiments related to that process or method or anything that could help us.”

Student 13:

“I think aligning the idea of the company with all the objectives we see from the UN and being sustainable as a company.”

5.2. Did you propose and initiate creative and innovative solutions and how were they?

Student 3:

“Well yes, I don't think they were innovative as such, but solutions were being proposed throughout the whole process.”

Student 7:

“Yes, definitely. For example, both me and the people in my team consider ourselves very visionary individuals who are always seeking change.”

Student 18:

“Yes, I proposed ideas for our project as a team, but I think it was difficult because we were working virtually and didn't know each other. It was like most people were just like ‘oh okay, that's fine’...”

5.3. What were the underlying circumstances when addressing specific problems?

Student 4:

“Well, well I don't know, I feel that maintaining a connection with my classmates was the main thing.”

Student 11:

“Well mostly like... I couldn't really tell you exactly, but it would be mainly talking to my classmates and solving problems as ideas came up, and that's it.”

Student 17:

“Well more than anything it was like we couldn't agree on time or sometimes someone couldn't connect and we just have to manage between four or three of us, but in the end we all get involved in a specific way and I think the problem will be lack of communication at times.”

6.1. What steps did you take to understand the diversity within the work team in your entrepreneurial project?

Student 2:

“Well, mainly because we are from different fields of study, and we all have different prior knowledge that we have worked on in various areas. So, on one hand, it was good to hear everyone’s ideas, but on the other hand, it was also complicated to reach a middle ground when half of the team wanted one thing and the other half wanted another. So, mostly, we sought advice and did what was most convenient for the project. But I think it was a bit complicated due to the different prior knowledge each person had because some were clearly more developed and focused than others.”

Student 7:

“Well, in our work team, there was diversity not only in terms of ideas but also in terms of different plans and occupations that each person had. That is understandable since everyone has their own lifestyle, schedule, and style. Fortunately, though, our team had some things in common so it wasn’t too difficult... This already speaks about diversity and knowing how diverse our products are or even the diversity in meaning behind what we want to convey. In fact, our project aimed to showcase the diversity that exists around the world.”

Student 14:

“It was difficult because I already had an idea for the project and dealing with stubbornness like ‘it’s my idea’ or ‘I don’t want it to be like this’ can weigh you down at times. However, in the end you realize that four heads think much better than one and that my classmates’ ideas were actually very good. Together, we achieved interesting things, things that I hadn’t thought of or maybe didn’t fully agree with but ended up working well when presented.”

6.2. What is the relevance of teamwork and collaboration?

Student 1:

“I think it’s super, super important that each person knows the abilities and talents of others and that we can take advantage of them so that together we can do something well. Obviously, one person doesn’t know how to do everything or master everything, but if each person knows how to do something and we can come together and contribute, I think that’s the most important thing in everything. So that’s why I believe teamwork is very, very relevant and important.”

Student 7:

“Definitely, I believe the relevance lies in the different ideas and solutions that can arise because sometimes we may not be able to see beyond a certain point no matter how hard we try, but someone else comes along and finds it so easy to solve. So I think the best part about teamwork are the different tools that each person can bring.”

Student 9:

“For me, it is the most relevant aspect of anything, especially when you’re working on a project. It is true that there are times when even I feel like doing it alone would be easier just to avoid disagreements or things like that. But even if you do it alone with all your effort, always working as a team in a creative environment and also a healthy environment will lead to better performance and results because you’re combining your mind with other people’s minds. You may see something in a certain way individually, but another person sees it differently from yet another perspective. Therefore, the result achieved through teamwork is much more...I don’t know how to explain it...rich or special compared to an individual work. So I believe all teamwork projects are always better than individual work as long as they have good structure within an environment—a healthy environment etc.”

6.3. What is the role of professionalism and conduct within the work team?

Student 7:

“Definitely, how one acts and the commitment, I mean, how one acts in certain circumstances and how one commits. I believe that a person who is not professional cannot commit and maybe they would not be suitable for the project.”

Student 10:

“Well, it is also very important because you have to give it that serious and relevant aspect that the project has in order to offer it and apply it in many areas, in this case construction, and that innovation can also affect future ventures of other people. So you always have to give it professionalism and do things right from the beginning to achieve an expected or good result for your project.”

Student 17:

“We were all very professional. Maybe at first there was a little lack of communication but over time we acquired knowledge and skills, and we managed to be very professional in the end. Each person did their assigned tasks well, so we worked very well as a team.”

The key categories that emerged through this methodology are presented in the Results section. Below, we present the most meaningful student responses for each question, supported by analysis using the Atlas Ti software.

Based on the meaning-making analysis and supported by the Atlas Ti software, **Figure 1** presents the frequency of key terms mentioned by students, reflecting the construction of meaning from their individual experiences (Atlas Ti, 2024).

Teamwork, encompassing collaborative actions and camaraderie among group members, emerged as the most frequently mentioned term, accounting for 40.3% of references. Closely following was Communication, associated with the success-

ful execution of the Entrepreneurship Project, which accounted for 39.5%.



Figure 1. Word cloud.

Other notable categories include Entrepreneurship Ideas in development (9.5%), Member Behavior within teams (7.1%), and the Market Impact targeted by their ventures, which was referenced in 3.5% of the coded responses (see **Figure 2**).

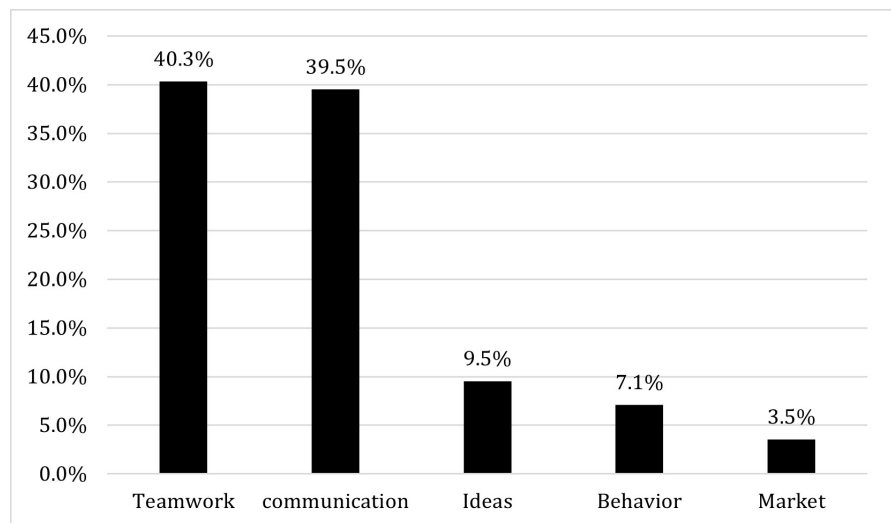


Figure 2. Words with the greatest meaning for students of the entrepreneurship course. Source: Data taken from interviews with students (2022).

5. Discussion

The main findings the key categories that emerged through this methodology are presented in the Results section. Below, we present the most meaningful student responses for each question, supported by analysis using the Atlas Ti software. Based on the meaning-making analysis and supported by the Atlas Ti software, **Figure 1** presents the frequency of key terms mentioned by students, reflecting

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Other notable categories include Entrepreneurship Ideas in development (9.5%), Member Behavior within teams (7.1%), and the Market Impact targeted by their ventures, which was referenced in 3.5% of the coded responses (see **Figure 2**).

The main findings indicate that students are navigating a new reality shaped by the disruption caused by the COVID-19 pandemic (WHO, 2020; Apaza et al., 2020). They face a transformed way of doing business and encounter a more discerning and demanding client base than before. This shift has motivated them to innovate and explore entrepreneurial activities distinct from traditional models, recognizing the need for creative adaptation in a rapidly changing world informed by technological advancement (Rodríguez-Ramírez, 2009).

Students emphasized the growing importance of developing core skills such as teamwork and communication. Through reflective processes, they explored how to build sustainable businesses by continuously designing and launching new projects to align with evolving market expectations (Hutchinson et al., 2021; Ndou, 2021).

Furthermore, the isolation brought about by the pandemic prompted students to generate new ideas that reflect diverse and innovative approaches to entrepreneurship. These ideas address current social and economic challenges and reflect the ongoing need to think creatively in times of disruption (Ofem et al., 2023).

This evolving mindset has led to the creation of new entrepreneurial horizons and the reimagining of markets, encouraging students to develop products and services tailored to this new post-pandemic landscape (Ayandibu & Vezi-Magigaba, 2022; Zubizarreta et al., 2014; Lekishvili & Kikutadze, 2023).

The findings strongly reaffirm the relevance and applicability of the six reflective skill domains used to define the entrepreneurial mindset: Initiative and Enterprise, Creativity and Innovation, Lifelong Learning and Future Orientation, Risk Taking and Critical Thinking, Leadership and Management, and Communication and Collaboration. These competencies consistently surfaced in student narratives as they responded to pandemic-related challenges, adjusted to virtual learning environments, and pursued innovative entrepreneurial ideas. This supports the ongoing relevance of the WSD framework for guiding entrepreneurship education during periods of uncertainty and transition.

6. Conclusions

The findings strongly reaffirm the relevance and applicability of the six reflective skill domains used to define the entrepreneurial mindset: Initiative and Enterprise, Creativity and Innovation, Lifelong Learning and Future Orientation, Risk Taking and Critical Thinking, Leadership and Management, and Communication

and Collaboration. These competencies consistently surfaced in student narratives as they responded to pandemic-related challenges, adjusted to virtual learning environments, and pursued innovative entrepreneurial ideas. This supports the ongoing relevance of the WSD framework for guiding entrepreneurship education during periods of uncertainty and transition.

As observed in the results, the majority of students acknowledged that they are facing a new reality—markedly different from how entrepreneurship was approached before the COVID-19 pandemic. In this shifting environment and marketplace, students recognized the need to be more innovative, engaging in activities and developing business ideas suited to an evolving and complex world. Their dialogues reflect an acute awareness of the importance of further cultivating competencies such as teamwork and communication to meet the demands of a more sophisticated and rapidly changing market.

Students expressed consensus that the post-pandemic market is increasingly driven by the information technology sector, which in turn makes consumer behavior more intricate and competition more dynamic. This reinforces the need for continuous learning, agility, and collaborative engagement.

The study also validates that the pandemic and the emerging economic landscape have served as catalysts for innovation and iterative improvement, especially in areas like communication and teamwork. Furthermore, it confirms the effectiveness of applying a reflective, skill-based framework to explore and develop entrepreneurial mindset. Through the six key domains identified by [Bandaranaike et al. \(2020\)](#), students were able to articulate their development across cognitive, social, and behavioral dimensions of entrepreneurship. These insights offer valuable implications for refining experiential learning practices in entrepreneurship education.

In terms of entrepreneurial mindset, the isolation and disruption triggered by the pandemic have contributed to its evolution. Looking forward, this highlights the need to integrate not only economic, environmental, and cultural considerations, but also psychosocial dimensions—such as thoughts, emotions, and behaviors—into entrepreneurship education. Addressing these multifaceted influences will allow educational programs to better equip students for the demands of an increasingly complex and dynamic entrepreneurial ecosystem.

Consequently, these findings have led this university to reflect on and reconsider its pedagogical approach to entrepreneurship education, aiming to align more closely with the current realities and future challenges of the entrepreneurial world.

7. Limitations and Future Research

Consequently, these findings have led this university to reflect on and reconsider its pedagogical approach to entrepreneurship education, aiming to align more closely with the current realities and future challenges of the entrepreneurial world.

This research analyzes the impact of the COVID-19 pandemic on practical entrepreneurship courses for undergraduate students, while also acknowledging certain limitations. The study was conducted with students from a private university in western Mexico, which has its own institutional characteristics, cultural context, and pedagogical model. As a result, the findings may not be universally applicable across different educational settings.

It is therefore recommended that future research include students from a broader range of educational institutions, particularly public universities, to explore how diverse cultural and educational contexts influence entrepreneurial mindset development. Expanding the study population would allow for a more comprehensive understanding of how institutional environments shape learning outcomes in entrepreneurship.

Additionally, longitudinal studies are encouraged to assess the long-term impact of entrepreneurship initiatives launched during or after the pandemic. Tracking the evolution and effectiveness of these ventures over time would provide deeper insights into how experiential entrepreneurship education contributes to sustainable economic development and student success.

Conflicts of Interest

The authors declare that there are no conflicts of interest related to the publication of this paper.

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