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New paradigms in agribusiness education: The case of the Food and Agribusiness Program, School of Agronomy, UBA.

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Abstract

Disturbances are common in the business environment. This makes it very difficult for any institutional, organizational or technological design to be competitive in a sustainable way. Education is not out of new trends and perturbances, especially since the restrictions we lived since the emergence of COVID-19. In this paper the adaptations and new ways of teaching are presented, including a brief history of the Food and Agribusiness Program of the School of Agronomy, University of Buenos Aires, Argentina, that has 3 different postgraduate courses since 1999. The results show strategies and tools implemented in order to get closer with the students who decided to participate online courses in 2020 and 2021. On the other hand, “the voice of the student” and “the voice of the professor” is presented, in a way of analyzing how the tools were effective or not.

Key words: Disturbances, Postgraduate courses, Online, Adaptation.

1. Problem statement

Disturbances are common in the business environment. This makes it very difficult for any institutional, organizational or technological design to be competitive in a sustainable way. In order to survive in this context, the main problem that an organization must solve is that of adapting through innovation and the design of institutions, organizations and technologies (Ordóñez 2002). Human talents are capable of innovation and design, and this capacity depends on their skills and attitudes both at individual and group levels. Training is one way to develop people's aptitudes. As disturbances become more and more frequent, the need arises for universities to implement continuing education programs (Delacre & Ordóñez, 2006).

During the last 20 years Food and Agribusiness systems had experimented both turbulence and booming scenarios. In 2001 China entered in the WTO, developing countries increased tremendously its food consumption, food exports around the world had raised abruptly, near USD 2 trillion. On the other hand, technology advance rapidly, especially in regard information, automatization, social networks, etc. (Senesi et al., 2021). Finally, COVID-19 crisis had changed the environment, either at consumer behavior or how the companies manage procedures, work force and inputs (Senesi et al., 2020).

Labor and workforce are important topics to be discussed in recent years. Senesi et al. (2020) stated the following changes and elements to consider due to pandemic situation:

- Companies combine home office and presence. With connectivity, digitization produces excellent results for administrative and sales areas.
- Less need for people in administrative, commercial and sales activities. Greater need in the training, sports, tourism segments.

- Shortage of workers in food industries and packing centers and less mobility of seasonal and migrant workers (for harvesting crops, fruits, regional productions, etc.).
- Strong impact on the reduction of labor sources (in quantity and quality) in countries that supply agricultural commodities and food. Lower income in workers and small producers in underdeveloped countries.
- Automation will generate new jobs and changes in the allocation of workers and resources. There will be new jobs today unknown.
- Digital and e-commerce opens the doors for young people (Millennials) to work in the labor market. Data analysis (big data) in the micro-segmentation of the demand, logistics solutions, quick solutions in business management.
- Greater need for services due to the transfer from large cities to life in the countryside, on the outskirts and in small urban centers.
- Greater prioritization of research, development and innovation, with the aim of local manufacturing and the enhancement of "local" tourism.

The capacity of creating knowledge and innovating is key to building competitiveness (Jatib et al., 2003). In that context, it is essential to form human resources capable of adapting to the dynamics of the times. Companies involved in the agrifood system and aiming at competitive reengineering, require changing the professional profile of their professionals and reconverting their human resources.

In response to that specific demand, the Food and Agribusiness Program of the School of Agronomy of the University of Buenos Aires (FAUBA) reaches out to the private and public sectors by offering different alternatives of postgraduate courses: Food & Agribusiness Executive Management, Specialization in Food and Agribusiness and Master in Agribusiness. These courses have been conducting by "face to face" course since 1999, following traditional academic techniques like master class, use of case studies and group discussion. More than 8,000 students from Argentina and other LATAM countries have been participating in these courses during more than 20 years, becoming the Food and Agribusiness Program (F&AP) the most important postgraduate institute in the area.

However, since 2020 pandemic situation, this way of performing classes to the postgraduate students has changed: The Argentine Government installed a strict lock down due COVID-19 cases and all the postgraduate courses of the F&AP had changed in the way of teaching. On the other hand, numerous students became more interested in participating in classes by using online platforms. Higher flexibility, the impossibility of travelling and the necessity of better management tools were the most important variables the students were looking for. New online techniques and ways of interacting between students and teachers emerged, with many challenges and adaptation for both students and the Direction of the Postgraduate courses.

The objective of this paper is to present the changes and adaptation in postgraduate in agribusiness programs due to the restrictions in face-to-face teaching during 2020 and 2021. As a secondary objective in this paper, we

collect the “voice of the student” and the “voice of the teacher” in order have feedbacks in regard the academic, organizational and learning / teaching performance during 2 years of courses.

The paper follows with a history of the F&AP, courses and academic structure, then we state the procedures and some expected results.

2. The Food and Agribusiness Program: history and situation in 2019

The Food and Agribusiness Program (F&AP) was created in view of institutional, organizational and technological innovations introduced in the agrifood system during the 1990's and of significant institutional changes in public universities. The mission is to satisfy a new demand of students in food and agribusiness management by creating, transferring and applying food and agribusiness knowledge from the point of view of research, teaching and consultancy (Cetrángolo & Ordóñez 1999).

This Program got full support from the public sector –including the Secretariat of Agriculture and the University of Buenos Aires–, as well as from the private sector –agribusiness firms, banks, and service companies among others– by way of training, consulting services, R&D and the deployment of skills (Jatib et al., 2003).

Further support came from the Argentine IAMA Chapter and the faculty of the F&AP of the University of Sao Paulo (PENSA) (Decio Zylbersztajn, Marcos Fava Neves, Samuel Giordano, Sylvia Saes, among others). The joint efforts of all those engaged in the development of the F&AP enabled meeting the primary goal of the Postgraduate Courses in Food and Agribusiness for professionals and practitioners, namely, to focus on skills and knowledge to do business.

Since this enterprise, unique, innovative and creative in a public university in Argentina, companies and their personnel could have the opportunity of accessing a syllabus that incorporates the most relevant topics in the sector and the insight of expert professors from other international agribusiness schools willing to share their knowledge and experience of the agribusiness world at international workshops and seminars.

Following are the main topics covered by the Postgraduate Courses: International agrifood scenario and MERCOSUR; economy and management in agribusiness; strategic management and business planning; marketing and communication; capital markets and financial engineering; formulation and evaluation of projects and business risk; trading of commodities; trading of specialties; negotiation and organizational analysis; TICs (technologies of information and communication), food and agribusiness management and quality assurance, analysis of competitiveness of agribusiness systems, microeconomy, macroeconomy, statistics, costs analysis.

Transfer in the academic area takes place through three different programs: the Master's Degree in Agribusiness (MA), aimed at researchers, faculty and businessmen looking for academic rigor; the Food and Agribusiness

Specialization Program (EAA) aimed at professionals seeking to become better qualified for leadership positions in the business scene, consultancy, NGOs and the State, and finally, Food & Agribusiness Executive Management, aimed at professionals who wish to stay current, change fields or improve their knowledge in the area of food and agribusiness. Table 1 shows a description of the different courses in each postgraduate program. The training strategy employed combines the theoretical and conceptual framework with hands-on exercises and the study of cases, focusing on competitive management of agrifood chains and on quality.

Table 1. Programs, courses and hours in the Food and Agribusiness Program postgraduates

Program	Courses	Hours
Master in Agribusiness	*Microeconomics *Macroeconomics *Agribusiness Economics and Management *Business Planning and Strategic Management *Marketing *Accounting and finance *Statistics *Management Projects and risks *Capital Markets *Negotiation *Organizational Analysis *Commodities Business *Specialties Business *Food distribution and logistics *Agribusiness competitiveness *International agri-food scenario *Foreign trade *ICT *Thesis elaboration workshop	Total hours: 770
Food and Agribusiness Specialization (in bold font mandatory courses, and at least four extra optional courses)	*Microeconomics *Macroeconomics *Agribusiness Economics and Management *Business Planning and Strategic Management *Marketing *Accounting and finance *Statistics *Management Projects and risks *Capital Markets *Negotiation *Organizational Analysis *Commodities Business *Specialties Business *Food distribution and logistics *Agribusiness competitiveness *International agri-food scenario *Foreign trade *ICT *Thesis elaboration workshop	Total hours: 370
Food & Agribusiness Executive Management	*Agribusiness Economics and Management *Business Planning and Strategic Management *Marketing *Accounting and finance *Management Projects and risks *Capital Markets *Negotiation *Organizational Analysis *Commodities Business *Specialties Business *International agri-food scenario *Foreign trade	Total hours: 200

Source: own elaboration

Since pandemic situation in 2020 all this training strategies were modified partially, in terms of adapting to an online training situation. All the topics covered by the courses were maintained but new strategies were implemented. In the following chapter we develop the procedures, both to describe these changes and what is the “voice of the costumer”.

3. Procedures

Firstly, the paper shows all the changes in terms of adapting the 3 courses into an online teaching platform. Technological and academic aspects are

described, including tech platforms, use of different online tools or mechanisms as videos or online discussion (forum). But also, the paper describes new ways of approaching the students or learning technics. For this issue, the authors analyzed the programs of all the subjects, including new materials, new references, new perspectives or proposition each professor included. In depth interviews with professors is used to go deeper into the analysis.

Exploratory research is conducted by means of surveys of students of the F&AP. The data collection tool is a structured by using an online questionnaire (Google Forms). In the case of the students, we collect information of those that participated in 2020 and 2021 course, looking forward to identifying their performance during the courses, their point of view of the learning process, the relationship with professors and alumni, their feeling about the materials and tools given by the professors, etc. The information obtained by means of the survey is crossed with information obtained in in-depth interviews with representative students of each segment.

4. Results

During 2020 and 2021 more than 450 students participated in the different courses the F&AP had. Almost 20% of total alumni were students from LATAM countries, predominating from Perú, Paraguay and Uruguay. Average age was 30 years old, which gives us an idea that many young students look forward new horizons in terms of training in agribusiness and management. In terms of labor, 95% of the students had a job during the course.

All the courses changed the way of teaching: from “face to face” courses to online courses. All the professors maintained the subject’s programs, but incorporated new materials, including new papers and articles about COVID-19 situation and ways of implementing management tools in companies and organizations, case studies and videos.

In terms of the academic platform, the F&AP team decided the following changes:

- Organize a new agenda of courses, in order to have better correlation of themes.
- A new material was given to the student: “guía del alumno” (student guide). This document is a guide of the different classes, contents, lectures / references to be read, videos to be seen and practices (alone or in group) for each class. It was a very useful both for the students and the professor, in order to organize the class and to have different learning objectives. The document is delivered to the students 15 days before each course.
- Reduce from 4 to 2.5 hours each master class. The 1.5 hour remained were changed with papers, articles and videos to be studied / seen before or after the class.
- Use of Google Meet for master classes. Each class was recorded, and the video was in the online platform to be seen (both for those students who wanted to see the video again and those who couldn’t participate in the class).

- Continue with the evaluation (anonymous survey) of each class, by the following topics: knowledge of the professor, skills in transmitting the concepts, level of interaction between students, quality of the bibliography, importance of the subject. The survey is delivered to the professor who has the chance of change, expand or include different topics due to the necessity of the students. An overall survey is conducted when the course is finished, in order to be useful to adjust for the next year.
- Use of the platform “Moodle”, installed by the School of Agronomy. With this platform was possible to monitoring when the students entered, how much time they were inside the platform, the participation in forum and other activities, creating different forms of evaluation (i.e. exams, short papers, essays, etc.).
- Use of WhatsApp application in the different courses in order to communicate different events, invitations to the different classes (as reminders) or event mini Wapp groups to be used for specific works they have to do (i.e. essays o discussion of certain topics).
- Seminars done by invited speakers, mostly CEO’s, entrepreneurs or food and agribusiness owners, but also academics from different countries due to the online possibilities (Brazil, USA, Ecuador, Spain, France, The Netherlands, etc.).
- Case competition: For the Executive postgraduate courses the Direction propose a Case Competition with more than 60 students, mixed in groups, with a special tutor, who presented a resolution of a business case.

Due to all these changes, in the following section the “voice of the students” is included.

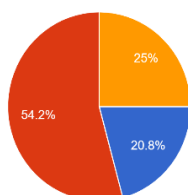
As a first analysis we asked to the students how the postgraduate covered his/her expectations. In the case of Master / Specialization programs, 75% of the students said that it was high or very high. In the case of Executive program, 85.5% qualified as high or very high (see figure 1).

Figure 1. To what extent did the course meet your expectations?

Master / Specialization

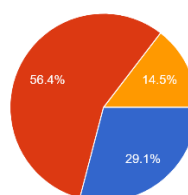
Executive course

¿En qué medida cubrió sus expectativas el curso?
24 respuestas



● Muy Alto
● Alto
● Medio
● Bajo

¿En qué medida cubrió sus expectativas el curso?
55 respuestas



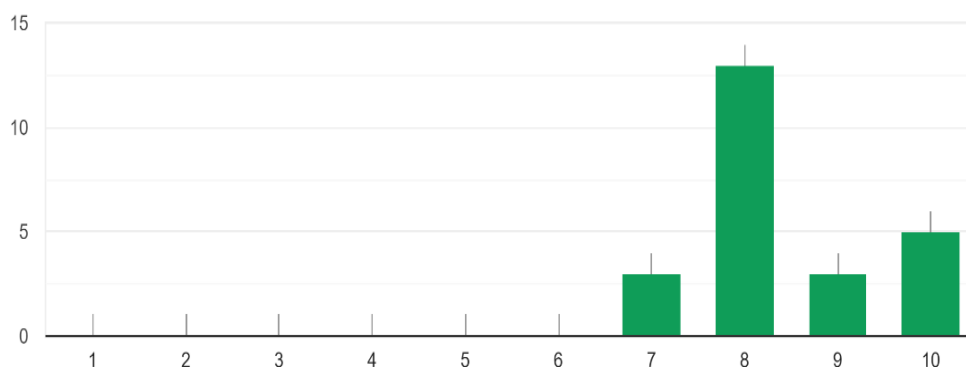
● Muy Alto
● Alto
● Medio
● Bajo

Source: own elaboration

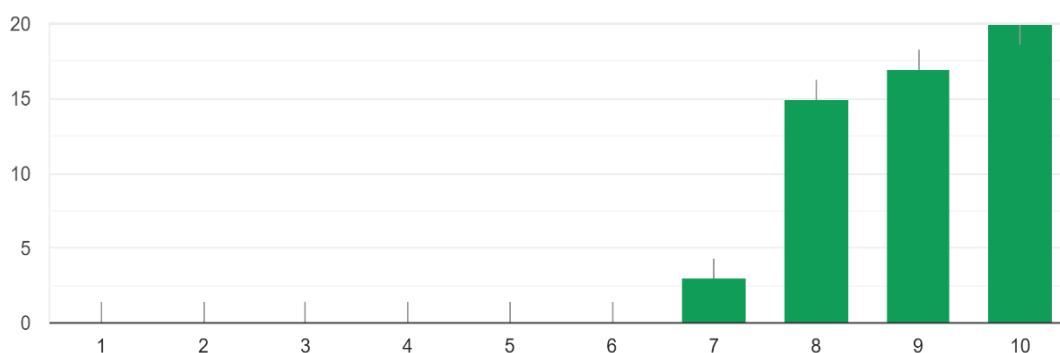
In the following charts, we asked the qualification of the program in a general way. 54.2% of Master / Specialization students qualified with an 8 (eight), 12.5% qualified with a 9 (nine), 20.8% qualified with a 10 (ten); only 12.5% qualified with a 7 (seven). In the case of the Executive Program, 5.5% qualified with a 7 (seven), 27.3% qualified with an 8 (eight), 30.9% qualified with a 9 (nine) and 36.4% qualified with a 10 (ten).

Figure 2. Qualification of the programs.

Master / Specialization



Executive Program



Source: own elaboration

In this topic, some students mentioned:

"It was a great experience for me. The quality of the teachers and the always predisposition of the whole team stood out."

"This program changed me. The process of taking and seeing the classes again made me "chew" the topics."

"Excellent the postgraduate, the contents, the professors of each course were excellent and very dedicated."

"Postgraduate information is very current, the bibliography very complete."

“All the tools they need to diversify interests are provided, in different areas.”

The Master / Specialization programs students mentioned the following positive aspects of the program who participated:

- The professional level of the professors (21)
- Organization / Monitoring / Commitment of the Direction (6)
- Presentation of current data of our reality / Information (5)
- Good atmosphere / good interaction with students and professors (4)
- Application of the different topics the job (3)
- Access to materials / bibliography (3)
- Punctuality (2)
- Flexibility of the course (2)
- Dynamic learning, with many examples and application (2)
- Teamwork / level of the students (2)
- Meet people from different countries / network
- Compliance with academic calendar
- The exam modality
- Recording of classes
- Appropriate course sequence

The Executive Program students mentioned the following positive aspects of the program who participated:

- The opportunity of doing the postgraduate by distance, if not it would have been impossible (27)
- Flexibility / Comfort (27)
- The ability to review the material at any time (9)
- Commitment of the organization of the Program (6)
- Meet people from different countries / diversity / network (6)
- Time schedule / Agenda (5)
- Recording of classes (4)
- The professional level of the professors (4)
- Lower costs (2)
- Practical and functional (2)
- Peers' discussion

The Master / Specialization programs students mentioned the following negative aspects of the program who participated:

- Delay in delivery of qualifications / presentations (5)
- Lack of more practical classes (5)
- Time schedule / Agenda (4)
- Extremely focused in Argentina (3)
- Google Meet was not good enough for classes (2)
- Digital access to materials (2)
- Better organization / commitment in teamwork (2)
- Better integration of different courses / professors

- Difficult of participation due to the online mode of classes

The Executive Program students mentioned the following negative aspects of the program who participated:

- More networking with colleagues and professors (44)
- Some virtual access problems (12)
- Distraction in classes (10)
- Some teachers with little adaptation to this course medium (9)
- Class interaction (7)
- Too much information in a class / course (4)
- Academic platform (CED / Moodle) (3)
- Major content activities / case studies (3)
- Agenda / day of classes (3)
- Little preparation time for the case competition (2)
- Too many papers / articles to read in some courses (2)
- Lack of time (2)

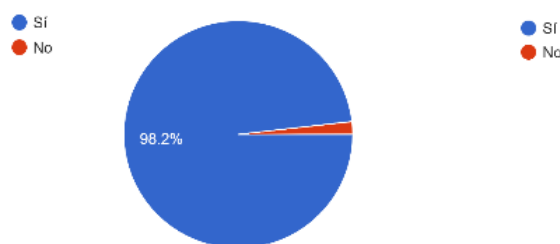
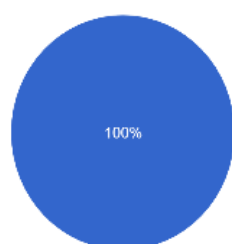
All the students of the Master / Specialization Program and 98.2% of the students of the Executive program respond that the agenda of courses was correct (see figure 3). Some comments about this are:

“They mostly followed a logical order. The specialties class would have been good to follow from the commodities class. Marketing and negotiation could be at the end”; “For the most part, they complement each other and had a logical order”.

Figure 3. The opinion of the students about the order of the agenda

Master / Specialization

Executive program in the right



Source: own elaboration

Most of the students felt comfortable with the new way of teaching / learning (online), but some of them resulted “rare” the fact of not having contact with other students or professors in order to have a better learning process:

“Although it is true that the virtual modality helps to be present in the classes, I consider that the presence in the classroom would help much more to establish some concepts that are necessary to discuss and also strengthen the relationships between the students.”

“The way in which the classes were developed during the year 2021 (online) were enjoyable, to which we have adapted from the place we were living/working. However, it was a bit difficult to exchange clear and direct ideas with the working groups. What can be done by 2022, of course if the Covid rules allow it, can be mix classes, in order to develop the social part and exchange of clear ideas between teachers and students. and among colleagues in the work group.”

“It is very difficult to follow the thread with virtuality, it would be a solution to have more breaks and make it more interactive.”

The students considered very important the “guía del alumno” and fulfillment of what it states there. Some critics in this issue were related to the short time the bibliography was available in the platform or some limitations to access and study, especially because most of the students work and study at the same time.

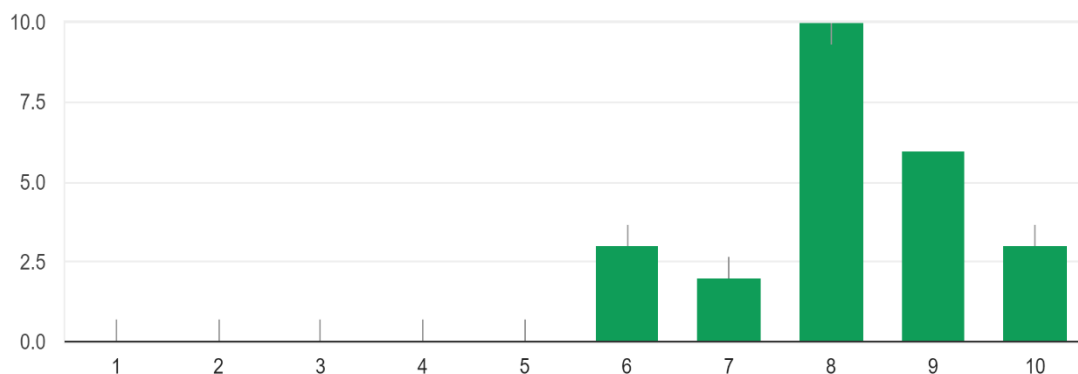
The students qualified similar to previous years (face to face period) about the classes and professors’ performance. This means that professors could adapt perfectly well the subject in the new paradigm. Moreover, some students stated that professors were available not only during the classroom online time but also offline, both in consulting by email and by phone. For the alumni that participated during these years it is very important to have case studies, more examples and the chance of hearing businesspeople in the different courses.

Online interaction by the use of Moodle, Wapp, Meet, GDrive or other online platforms was conducted well. Some comments about this issue are: *“It could be seen to generate a friendlier platform with the handling of materials in order to be able to generate a better experience;” “The platform for class dictation could be Zoom, since subgroups can easily be made on it when mini group work needs to be developed within the class;” “Access to Google Drive was not very good, some other type of tool such as a virtual classroom could be used.”*

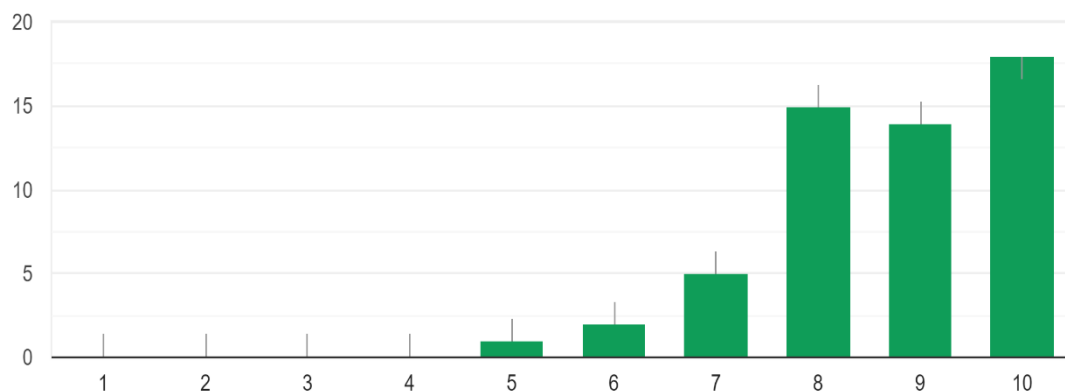
In terms of the knowledge, the students qualified mostly with 8-10 about satisfaction (79% of total students) in the Master / Specialization programs (see figure 4 above) and 85% of total students from the Executive Program considered that the satisfaction in regard of knowledge was from 8 to 10 (see figure 4 below).

Figure 4. Satisfaction about the knowledge (0 no satisfaction 10 full satisfaction)

Master / Specialization



Executive Program



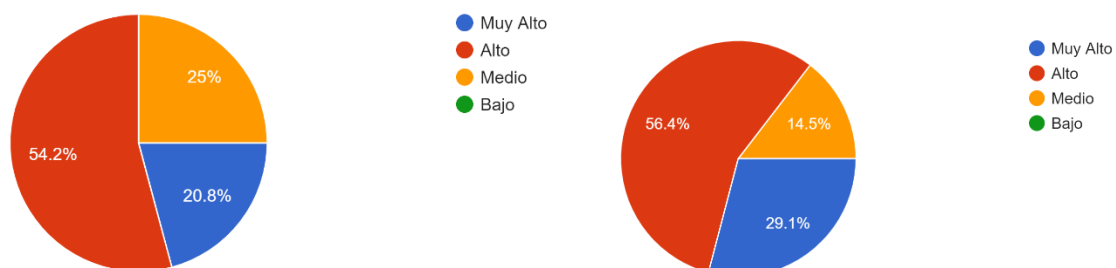
Source: own elaboration

Finally, we asked how the postgraduate covered his/her expectative, having the following answers: For the Master / Specialization students, 20.8% considered very high, 54.2% high and 25% intermediate. For the Executive Program students, 29.1% considered very high, 56.4% high y 14.5% intermediate (see figure 5).

Figure 5. Expectative covered by the postgraduate

Master / Specialization

Executive Program



Source: own elaboration

5. Conclusions

The Food and Agribusiness Program of the School of Agronomy, University of Buenos Aires is the leading postgraduate program in terms of agribusiness in Argentina. In that sense, more than 8,000 students participated in the different academic alternatives. Since 2005, students from different countries of Latin-America have been included.

Since the pandemic situation, the Direction decided to continue teaching by using online tools and platform. On one hand, it was a big challenge since the courses have been never realized in this format. On the other hand, the student is the “thermometer” if this way of teaching covers his/her expectative.

The Direction and academic coordination incorporated different tools and platforms, to adapt and facilitate the student the teaching process. The voice off the student was collected by a survey after the finish of the course. Most of the participants were satisfied with the program that they took, the bibliography and performance of the professors and the agenda. Moreover, they considered very important the network generated with students from different countries and the platforms and tools provided by the Direction in order to interchange knowledge and experiences.

All the efforts realized resulted in total quality agenda, incorporating new technologies and platforms in order to receive a new group of students in 2022 both in the Master / Specialization programs (30 students) and Executive Program (50 students) who will continue their courses online. By 2023 the Direction decided to have all the programs online and “face to face”, in order to have different students in regard each necessities and possibilities to postgraduate formation.

6. References

- Cetrángolo, H. Ordóñez, H. 1999. El programa de Agronegocios y Alimentos de la Facultad de Agronomía de la Universidad de Buenos Aires”. Document of the Food and Agribusiness Program. School of Agronomy, UBA.
- Delacre, M. & Ordóñez, H. 2006. The decision process of buyers of a graduate degree in agribusiness and foods at the FAUBA. Paper presented at the 16th IFAMA Conference, June. Buenos Aires.
- Jatib, MI; Vilella, F.; Ordóñez, H.; Napolitano, G.; Palau, H. 2003. Agribusiness Executive Education and Knowledge Exchange: New Mechanisms of Knowledge Management Involving the University, Private Firm Stakeholders and Public Sector. IFAMR Vol 5, Issue 3.
- Ordóñez, H. 2002. Aportes metodológicos de estudio e intervención en los agronegocios. Una teoría, tres modelos y tres casos en Argentina. XXXIII Reunión Anual AAEA. FAUBA. October.
- Senesi, SI; Palau, H.; Fava Neves, M., 2020. El impacto del Corona Virus en el Agro. Document of the Food and Agribusiness Program. School of Agronomy, UBA.
- Senesi, SI; Palau, H.; Fava Neves, M. 2021. Companies and Society. The 7 Elements of Action. A Contribution from the Plate to the Farm. International Journal on Food System Dynamics Vol 12(1). March. Pags. 1-5. ISSN 1869-6945.