

Methodology for Designing University Business Curricula with an Impact on the Family Economy

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Summary:

The curricula of the university programs of accounting, administration, commercial engineering and agricultural economic engineering of the Jorge Basadre Grohmann National University, should improve the family economies of those who are students, graduates or professionals, since their knowledge is greater than that of other professions, so the objective was to analyze the result of the curricula in the family economies of the city of Tacna. to establish a methodology that allows improving the quality of education. Three instruments were applied: a questionnaire, five focus groups and three in-depth interviews. The questionnaire was applied to 540 people who have been students of one of the four programs. There were four focus groups, one for each program, with the participation of graduates and professionals and a focus group for teachers. Three university authorities were interviewed. The results showed that 88% said that their family economy improved. Of the focus groups of graduates and professionals, they considered that courses, such as physical education, arts or others that they do not consider necessary, should be eliminated. The teachers accepted the need to improve the quality of the curricula, using the methodology of the current research. It is concluded that the quality of the curricula must be improved to have better results in the economies of a population by applying the methodology used in this work.

Keywords: study, business, economy, family, quality



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INTRODUCTION

The university is the highest level in any world educational system. In Peru, after the publication of the University Law, Law No. 30220 (Diario El Peruano, 2014), all universities are obliged to modify different basic educational conditions, with the aim of improving their quality and thus be able to obtain the university license. Within the law, it is mandatory that the curriculum of all professional programs be changed every three years. Almost 10 years have passed since the publication of the law, however, there is no methodological proposal, on the part of state agencies, that facilitates the understanding of what to change, why change it? And how to change it?

The Jorge Basadre Grohmann National University, of public management, located in the city of Tacna, in southern Peru, graduated since 2016 ¹, has four professional programs directly related to the business area: commercial engineering, accounting, agricultural economic engineering and administration. Part of the profile of the graduate of these professional programs focuses on having knowledge to improve the family economy. The last study plan was modified in 2021 and its next modification should have taken place in 2024, but since the pandemic occurred, the extension will be to 2026. The main objective of the research was to propose a methodology to design university business curricula that have an impact on the family economy.

The background used begins with what was proposed by Díez and Sánchez (2015), who pointed out that in the university there is a whole universe of students and the capacity of teachers to impart opportunities for all equally, therefore, the curricula are related to the methodology they use and achieve the desired competencies. taking into account the wide range of sensory, motor, cognitive, effective and linguistic skills that may be presented. Competency considerations are also addressed by Castellanos-Ortega et al., (2021), in an analysis of the intensive care medicine service, in which it is seen that the methods applied, under the so-called CoBaTrICE - Competency-based training in intensive care medicine in Europe - whose objective is that a professional from anywhere in the world has the same competencies for the execution of his profession; This method comprises 13 sections, of which 12 correspond to domains that must be given and one related to basic sciences. Their work concluded that the use of a methodology to achieve the minimum competencies required by intensive care medicine professionals is facilitating². In this same area of health sciences, what Trípodoro et al., (2024) indicated in the Delphi methodology was also appreciated, to establish a new curriculum in gradual medicine in Argentina. The method considers the presence of experts, who after an analysis give an opinion, in the case of their research, they invited 250 and 85 attended, who responded to two rounds and conclude with 10 recommendations to be taken into account in the curriculum to be proposed. Just as you can see these methodologies to design plans, you can also see the importance of evaluating the results of the competencies they propose. Pirela and Cortés (2014) compared two university experiences, one in Mexico (National Autonomous University of Ciudad Juárez) and the other in Venezuela (University of Zulia), evaluating in both the development of their informational competencies, this they did by making a critical review of institutional plans and programs. They conclude that despite the successes that both may have, it could not be indicated that both universities are computationally literate.

On the other hand, Martinez et al. (2013) investigate a case study for curriculum design in university education, so they considered, in their qualitative design, the challenge of implementing curricula that adapt to the changes of the times. They conclude that it is the experience of the teachers that is the main strength for curriculum design, which goes hand in hand with the teacher's culture.

Alonso et al. (2021), pointed out that even in universities, competencies do not achieve results as what is proposed in the curricula, establishing a methodology, which is based on the fact of proposing the development and evaluation of training projects. After applying their methodology, they conclude that it does favor the formation of professional competencies in Mechanical

Engineering students at the University of Holguín de Cuba. Crespo-Cabuto et al. (2021), introduce a research pointing out that a holistic curricular management should be given in the competency model, after analyzing 172 education professionals in a rubric, they conclude that the planning of the profile and the graduation process still do not cover the social needs where the future professional will develop. The conclusions indicate that although both universities have developed important experiences to develop informational competencies in students, they cannot be considered as informationally literate educational institutions.

All these antecedents were the basis for developing the methodological proposal, which considers the intervention of the communities and the instruments to be used to be important, being quantitative and qualitative, in order to achieve information that allows decisions to be made.

METHODOLOGY

Considering that Technology Readiness Levels (TRL) and Commercial Readiness Level (CRL) would be achieved, both in 2, and that it would seek contributions to the Sustainable Development Goals 4, qualitative and quantitative approaches were considered, taking the intervention of the university community, 540 people, of the four study programs analyzed, four focus groups were also made, one for each program, with the participation of graduates and professionals and a focus group for teachers, to end with the interview with three university authorities.

Conceptual Framework

For the development of the proposal, the conceptualization of the activities within the research was established, so it was taken into account documents of origin of the Ministry of Education of Peru, such as the guide for the development of study plans, guide on the system of university education: Republic of Peru and the Accreditation Model for university higher education study programs. Internet sources were also reviewed. With all this information, an analysis was made to determine that: the curricula are documents that contain the structure of the educational programs of any level. This document shows a logical sequence of courses that students must develop and their characteristics: hours, credits, content and evaluation. It is possible to determine, in the critical analysis, that the curricula allow competencies through the capacities that are granted to students in the teaching-learning process.

For Family Economics, the conceptualization of being the result of the level of information that a family unit has about the economy, at the macroeconomic level, as well as microeconomic, was accepted. The support of the profile of the graduate of the four professional careers is discussed, reaching the conclusion that the

knowledge of family economics should be superior in students, graduates and professionals of the four

professional business careers over all other careers, so their economies should be favorably affected.

RESULTS

To achieve the proposal, the following sequence was determined:

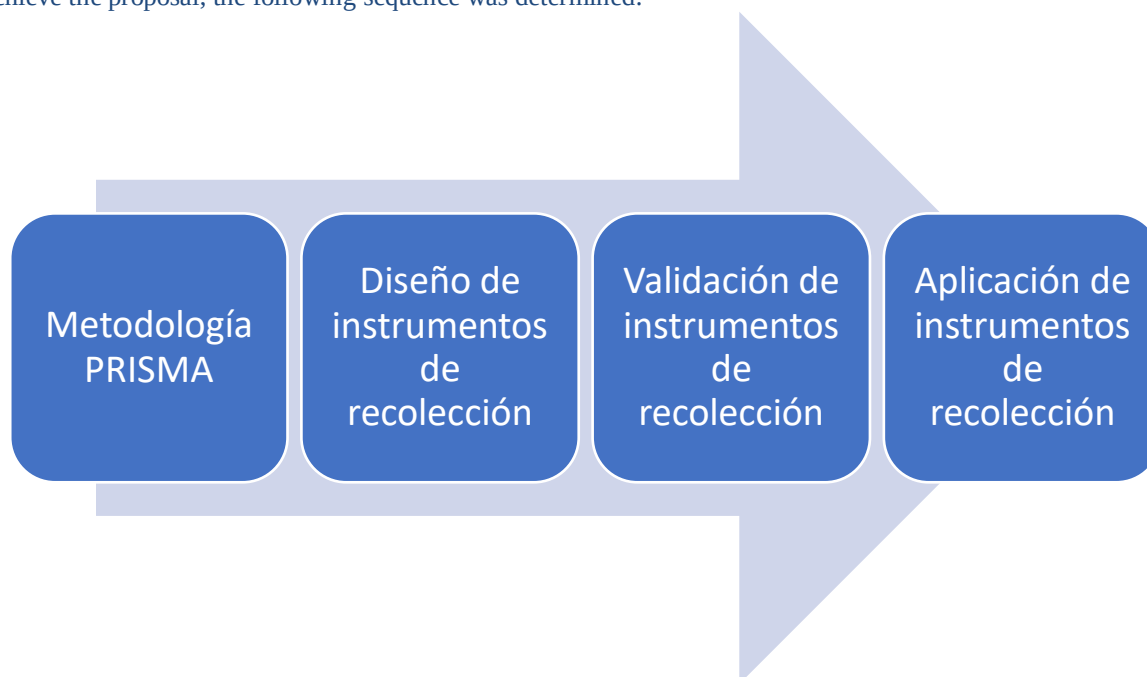


Figure 1. Sequence prior to the methodological design

The authors present the proposal to execute the methodological design, based on a previous systematic review, for the search chain, study plan and family economy. The result of PRISMA was six authors, the same ones who delimit the instruments to quantitative and qualitative, which are validated and applied. The document sheet analyzes the entry and exit profiles of the four professional careers, taking into consideration that the four aim to improve family economies, through the knowledge they impart. This motivated them to review the curricula of each of the four professional careers and after that, select those courses that would intervene directly in the family economy. The Peruvian system maintains, like everyone else, a categorization for the payment of taxes, in this case there are five categories:

- First category: stocks, stock exchange
- Second category: car rentals
- Third category: companies or businesses with RUC
- Fourth category: receipt for fees (self-employed)
- Fifth category: payrolls (dependent worker)

It should be remembered that the proposed methodology was executed before the design of the plan, since it must be given by a committee with the analysis of the results obtained. This methodology seeks, in its first moment (see figure 2), the selection of courses that are related to the characteristics of the graduate profile, in other words, if the graduate profile says: master the information of the family economy, this can be analyzed. In the case of the research, after reviewing all the courses in the study plans, 34 courses were compiled, out of a total of 144 courses between the four study programs:

- Process Management
- Administration or management of human resources or talent
- Audit related to private management
- Audit related to public management
- International trade or business
- Cost or financial accounting
- Financial accounting
- Accounting related to private management
- Accounting related to public management
- Internal control
- Costs and budgets
- Business creativity
- Econometrics
- Economy
- Business entrepreneurship
- Entrepreneurship and business models
- Finance
- Business Fundamentals
- Strategic Management
- Project management, formulation and evaluation
- Quality Management
- Public management
- Market Research
- Labour, tax and business legislation
- Logistics
- Marketing
- Stock and capital markets
- Accounting Standards
- Business Plan
- Strategic planning
- Agricultural technological processes
- Business forecasting

- Business Technologies
- Theory or SIG for decision making

When applying the questionnaire, the following result was obtained

Table 1. Courses that improve the family economy

Course	Percentage	Position
Financial accounting	44%	1°
Economy	39%	2°
Marketing	37%	3°
Finance	34%	4°
Costs and budgets	32%	5°
Cost or financial accounting	29%	6°
Business entrepreneurship	25%	7°
Logistics	23%	8°
Business Plan	22%	9°
Administration or management of human resources or talent	20%	10°
Public management	20%	11°
Business creativity	19%	12°
International trade or business	18%	13°
Market Research	18%	14°
Process Management	17%	15°
Entrepreneurship and business models	17%	16°
Internal control	16%	17°
Strategic planning	16%	18°
Quality Management	15%	19°
Strategic Management	14%	20°
Business Technologies	14%	21°
Accounting related to private management	13%	22°
Business Fundamentals	13%	23°
Accounting related to public management	13%	24°
Audit related to public management	12%	25°
Labour, tax and business legislation	12%	26°
Accounting Standards	10%	27°
Project management, formulation and evaluation	10%	28°
Stock and capital markets	9%	29°
Business forecasting	8%	30°
Audit related to private management	6%	31°
Theory or SIG for decision making	6%	32°
Econometrics	5%	33°
Agricultural technological processes	3%	34°

As can be seen in the table above, none of the courses exceeds the median, that is, there is no more than half of the community that says this course is the one that favored me in improving the family economy. The first percentile shows that the courses that most favor the family economy are between 25% and 44%, in the case of the last percentile it can be seen that it goes from 3% to 9%, so there is the possibility of substituting courses, or improving them so that they manage to be within the first percentiles. In addition, from this same questionnaire, it is seen that 88% indicated that knowledge of the university did allow them to improve

their family economy, however, there are 12% who do not perceive it that way.

If the study plan maintains an objective, with which the competencies and capabilities of the graduate's profile are given, these must be evaluated by the community itself, to see what changes can occur in the courses that make up the plan.

Another of the instruments proposed by the methodology is qualitative, given by the focus group and the interviews, the results obtained were the following:

Table 2. Qualitative Data Analysis of Alumni and Professional Group

Grounded theory (Social reality of individuals that explains the phenomenon of the study)	Content analysis: (from the interview transcript)	Thematic analysis (Patterns)
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Does the curriculum favor the family economy?	Yes, on a timeline, either by finding a job or being independent	Yes, but it is not immediate, for some it takes longer for others less	There is no full satisfaction between what they studied and family finances
What can be modified?	The curriculum does not adapt to the current reality and teachers lack methodologies to better develop these changes	There are courses that should not waste time, as well as teachers who do not know how to teach	Courses that should not be in the curricula
Will the methodological proposal strengthen the changes every three years in the curricula?	Yes, there hasn't been a rapprochement in this focus group room before	At last it will be possible to adapt to the changes	They are satisfied with the methodology that is just being developed and are willing to continue participating in the focus groups

The focus groups allow information that can be as general or detailed as one determines in one's analysis, in the case of the present research, it was taken in a general way and the moderator was left to select the sequence, to determine the results exposed in tables 2 and 3, however, in the recordings, It is appreciated how

the participants give details that are used, as in the case of art or physical education courses. The observers of the gestural responses and behaviors of the focus groups also have a perception that favors the results, and they should be in charge of forming the committees that will modify the curriculum.

Table 3. Qualitative Analysis of Teaching Group Data

	Grounded theory (Social reality of individuals that explains the phenomenon of the study)	Content analysis: (from the interview transcript)	Thematic analysis (Patterns)
Does the curriculum favor the family economy?	Not to all, since the knowledge taught must be executed according to the characteristics and opportunities of the students	Not always, it is necessary to analyze how students intervene in society	Disagree
What can be modified?	It is always perfectible	Comply with the law every three years	Must be modified
Will the methodological proposal strengthen the changes every three years in the curricula?	Yes, this process did not exist before, so it must be implemented at a higher level	With the focus group room and the spaces created now, if you have a methodology to guide us	Joy for a methodology that can be perfected

The position of answers in tables 2 and 3 is widely notorious, since graduates and professionals maintain a position of success, while teachers are more perfectionists, from the point of view that everything can improve, however, in the people who are behind the mirror of the focus group room, they can see or hear as many times as they see fit and reach their own conclusions.

Finally, the in-depth interview instrument showed that the authorities are happy to have a first focus group room, which will allow them to learn more about employers and entrepreneurs, to improve entry and exit profiles. They also considered that the methodology executed and that will be proposed, is the starting point for the implementation of it in other study programs of the university.

Proposal

The methodology considers eight moments, of which seven have been presented in this research and the last one has until December 2025 to propose the change. According to law:

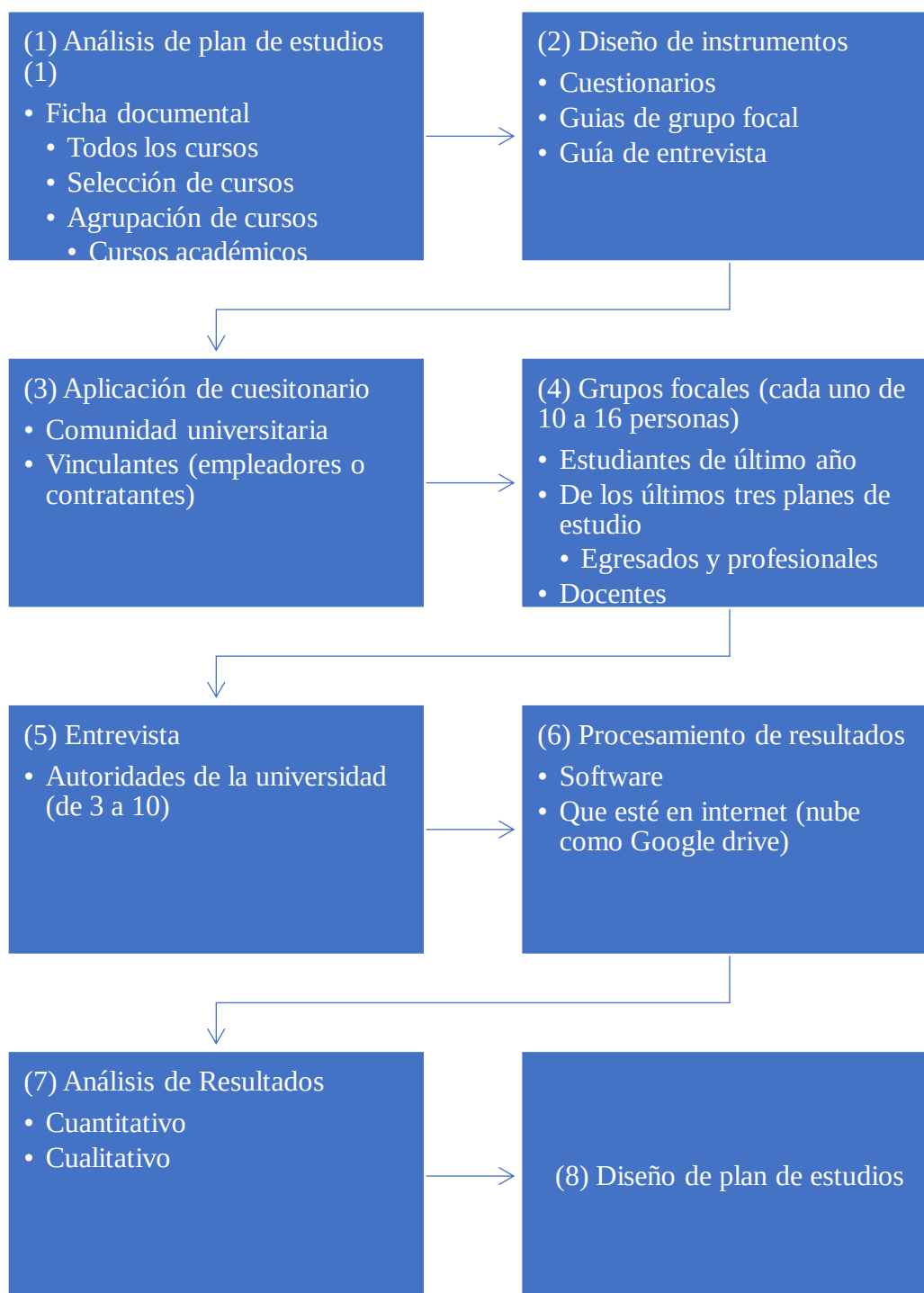


Figure 2. Methodology Sequence

CONCLUSIONS

Designing a methodology, which has been implemented and proposed in a case such as the impact of the family economy on university business study programs, allows us to conclude that the curricula, not only by law must change every three years, but should be permanently evaluated, in order to strengthen the capacities of university students and therefore, their competencies in the face of the different changes that may be required by employers or those in charge of hiring natural or legal persons that are constituted from studies carried out at the university. This methodology will contribute to improving the educational quality at the university and

will allow it to be a means of verification for the renewal of operating licenses.

Thanks

Jorge Basadre Grohmann National University

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