# Los rediseños curriculares en las carreras: un diálogo abierto en la Facultad de Filosofía, Letras y Ciencias de la Educación

Academic program redesigns in careers: an open dialogue in the Faculty of Philosophy, Letters and Education Sciences

# Segundo Barreno-Freire

Universidad Central del Ecuador, Quito, Ecuador sbarreno@uce.edu.ec https://orcid.org/0000-0003-0845-5360

# Germania Borja-Naranjo

Universidad Central del Ecuador, Quito, Ecuador gmborjan@uce.edu.ec https://orcid.org/0000-0002-0743-2450

### Cecilia Jaramillo-Jaramillo

Universidad Central del Ecuador, Quito, Ecuador cjaramilloj@uce.edu.ec https://orcid.org/0000-0003-4290-7674

(Received on: April 04, 2019; Accepted on: May 15,2019; Final version received on: July 10, 2019)

Suggested citation: Barreno-Freire, S; Borja-Naranjo, G. and Jaramillo-Jaramillo, C. (2019). Academic program redesigns in careers: Academic program redesigns in careers: an open dialogue in the Faculty of Philosophy, Letters and Education Sciences. *Revista Cátedra*, *2*(3), 106-125.



### Resumen

El propósito del estudio fue identificar las percepciones de estudiantes y docentes sobre las dificultades de la implementación de los rediseños curriculares en la Facultad de Filosofía, Letras y Ciencias de la Educación de la Universidad Central del Ecuador, para lo cual se tomó como base para el análisis las funciones sustantivas de la educación superior que son: docencia, investigación y vinculación con la sociedad. La metodología contempló el enfoque naturalista de carácter exploratorio y descriptivo, se utilizaron técnicas cualitativas y cuantitativas para lo cual se elaboró un formulario de encuesta en escala de Likert y una guía de grupo focal. La investigación consideró aspectos como: participación de la comunidad educativa en la elaboración e implementación de los rediseños curriculares; la docencia, la investigación y la práctica preprofesional en los rediseños; el aporte del proyecto integrador de saberes y las prácticas de aplicación y experimentación al perfil de egreso. Los resultados evidenciaron que en la elaboración e implementación del rediseño existió una limitada participación de los actores clave, además se evidencióuna deficiente orientación pedagógica y curricular. Esto se expresa en debilidades sustanciales en los campos de especialidad y de formación docente, en las mallas curriculares con asignaturas de alta carga horaria, que no corresponden al campo específico de la especialidad; así como también, la poca comprensión sobre los alcances y objetivos del proyecto integrador de saberes. Una de las conclusiones más importante apunta a una reforma integral a los rediseños curriculares de las carreras que respondan al perfil de egreso en coherencia con los lineamientos pedagógicos, epistémicos, metodológicos y axiológicos de la Facultad.

### Palabras clave

Carreras, docencia, especialidad, investigación, práctica preprofesional, rediseño curricular.

### Abstract

The purpose of the study was to identify the perceptions of students and teachers about the implementation of the academic program redesigns of the Faculty of Philosophy, Letters and Education Sciences of Universidad Central del Ecuador, considering that the redesigns aim to develop new capacities in the students of the Faculty, framed in the three substantive elements of education teaching, research, and connection with society, which express serious limitations in the institutional intentionality of reorienting the process of professional training in the eight education careers of the faculty. The methodology used was qualitative, exploratory and descriptive, qualitative and quantitative techniques were used, for which a Likert scale survey form and a focal group guide were elaborated, aspects were considered as participation of the educational community in the elaboration and implementation of curricular redesigns; the development of teaching, research and preprofessional practice in the redesigns; the contribution of the integrating project of knowledge and the practices of application and experimentation to the graduation profile. The results show that there was limited participation of the actors, deficient pedagogical and curricular orientation in the elaboration and implementation of the redesign, expressed in substantial weaknesses in the fields of specialty and teacher training. There are subjects in the curriculum with a high workload and without any relationship in the specialization field, there is also evidence of a lack of understanding of the scope and objectives of the integrating knowledge project. One of the most important conclusions points to an integral reform to the curricular redesign of the careers that responds to the graduation profile in coherence with the guidelines of the Faculty.



### Keywords

Teaching, research, pre-professional practice, curricular redesign.

### 1.Introduction

This article aims to identify the perceptions and assessments of students and teachers regarding the implementation of academic program redesigns at the end of the fourth semester of their implementation. This study covered topics such as the participation of authorities, teachers and students, the substantive functions of educational work: teaching, research, and linkage, as well as the application of the knowledge-inclusive projects (PIS) and the implementation and experimentation practices (PAE) that support the teaching and learning process

The Council for Higher Education (CES), the National Department for Higher Education, Science, Technology and Innovation (SENESCYT), in the framework of public policies in higher education established the legal regulations that required universities to restate educational processes under the guidelines of these institutions. These provisions for the elaboration of academic program redesigns were adapted almost literally by the Faculty of Philosophy, Letters and Educational Sciences.

Although the careers have a limited pedagogical and curricular orientation, they were in charge of planning the curriculum redesign oriented by the guidelines determined by the education agencies: CES and SENESCYT. For the education careers, a generic curriculum model was established and was the mandatory guide for the development of redesigns. The generic model included curricular units, fields of study and most of the subjects with their corresponding time load in the curriculum. In this context, curricular redesigns are created and approved in accordance with current legal regulations; firstly, the internal bodies of Universidad Central del Ecuador (ECU), and then the external ones constituted by CES and SENESCYT.

Due to the implementation of curricular redesigns, the Research Commission conducted this first diagnostic study by the request of the faculty authorities, identifying the main critical problems in the teaching-learning process. Situations such as limited student participation in the implementation of the redesign, lack of communication between actors, content of subjects and time load do not contribute significantly to the professional profile. Thus, the results of the study will help the decision-making of the authorities to make the necessary changes in the redesigns.

This article is structured as follows: the first part is purely theoretical in which the main conceptual lines and characteristics of academic program redesign in higher education are developed, taking as a case study the careers of the Faculty of Philosophy, Letters and Educational Sciences; the second part describes the methodology used in the study; the third part presents the analysis, interpretation, and discussion of the results on the implementation of curriculum redesigns; and ends with conclusions as reflections to open the debate.

# 2. The curriculum in higher education

# 2.1 Curriculum, definition and relevant data

Higher education institutions (IES) aware of their role and responsibility to society set the direction of the public policies of education systems and the equity in which their benefits are shared with the population. They are also the engine to address the effects of



globalization, the new social labor division, as well as the incorporation of new metrics beyond the Gross Domestic Product (GDP), that promote inclusion and equality in a pluralistic and democratic political and sociocultural context.

From this perspective, the University must be constantly renewed, leading to a restructuring of careers, curriculums, their epistemic, philosophical and methodological content in the framework of the development of authentic, free and democratic thinking. This will only be possible with relevant redesigns created on the basis of the country's social needs and development requirements.

Academic program design in higher education is a process of organizing and planning the training of professionals in the different fields of knowledge, and it also responds to its own internal dynamics and the socio-cultural conditions of the country. It requires deep analysis and reflection by the educational community in order to enhance and strengthen the individual capacities of the student and to promote the productive, economic and social development of the country.

There are several conceptions on the curriculum in higher education which depend on the strategic axes, the purposes of education expressed in a pedagogical and training project that contributes to the transformation of society. This study refers to the definition of Larrea (2015):

The higher education curriculum is a social and collective construction, based on a continuous research and evaluation process of trends in science, society, profession and the construction of interactions of educational actors. It expresses and defines the purposes of education, and promotes an action plan carried out in a pedagogical and training, critical, dynamic, participatory and creative project, oriented to generate learning experiences that produce an approximation between knowledge, reality and the production of meanings of the educational individual, developing a series of knowledge and competencies that affect his/her personal, professional and citizen identity in the framework of a particular productive, political, social, environmental and cultural context, leading to his/her transformation (p. 20).

The demands of today's society in the training of professionals must respond to the highest levels of scientific knowledge, the management of methods and methodologies that use information and communication technologies to support the teaching development process and the ability to respond to the demands of the Ecuadorian education system. These requirements, are essential to guide reforms and transformations in the curricular redesigns of the careers. Aspects that are rescued by Carrión (2002), by stating "that the cornerstone of substantive changes in education is in the conception of curriculum design" (p. 21).

Likewise, Durán et al. (2018) state that "the curriculum must be conceived from a dialectical projection that responds to the requirements of the social context through actions of teaching, research and linkage, intervening rationally in the formation process of professionals" (p. 7). In other words, the curriculum contains important aspects for the academic and institutional life of the university, therefore its design should encompass visionary strategies that in the long term are reflected in products that account for comprehensive training, i.e., profiled according to the demands of today's world.



The various proposals arising from the reflection and social commitment attached to the curriculum from a globalized and interdisciplinary perspective had as background the interest in achieving an integration of the various fields of knowledge and educational practices that allowed for the more thoughtful and critical understanding of reality. This implies an overcoming of scientific and subject-based content in the transition to a dynamics of processes that enable the creative appropriation of science and, at the same time, the understanding of how knowledge is produced (appropriate) and transformed. In this regard, Torres (1998) emphasizes that:

The globalized and interdisciplinary curriculum becomes a category capable of grouping a wide variety of educational practices developed in the classroom and is a significant example to analyze the most appropriate contribution form to improving teaching and learning processes (p. 31).

In other words, the curricular models made by the bureaucrats who lead education and who are outside the concrete processes of daily educational work in the classroom, in the interrelationship between teachers and students, are questioned. Therefore, the redesign has a globalizing nature in which the orientations on the selection of contents and their way of organization in areas and subjects prevent reflection and debate, evidence of the influence of the scientific, bureaucratic and instrumental trend in the educational processes managed by the State. Torres (1998) shows other alternative ways of conceiving the curriculum:

not only focused on subjects but on planning that revolves around the problematic nuclei. Here the student is forced to manage theoretical frameworks, concepts, procedures, skills of different disciplines to understand or solve the issues and problems raised (p. 31).

### 2.2 Academic program redesigns at the University

The construction of the University Academic Model starts from the consideration of the State rectory on public policy in higher education that sets out the strategic guidelines for its design and implementation. The curriculum is addressed from a multidisciplinary perspective that proposes the articulation of several disciplines that respond to complex problems that cannot be solved in isolation but in a dialogue between the knowledge. Also, a transdisciplinary logic that involves the integration of thought styles that incorporate in a transversal way new languages, problems, and purposes that exceed the individual departmentalized assigned (Larrea, 2015, p. 9).

The Faculty of Philosophy, Letters and Educational Sciences of the Central University of Ecuador started the design and elaboration of the curricular redesigns from 2015, following the provisions emanating directly from the Council of Higher Education (CES). Curriculum fields are at the heart of all the intervention to the student in which the actors and subjects, the knowledge, the methods and methodologies, contexts and tensions to be transformed are all together.

The field of study is understood as the set of integrated and coherently organized knowledge oriented to the understanding of the problems and thematic axes of the profession. These fields are as follows: (a) theoretical foundations; b) professional practice; (c) epistemology and research methodology; (d) integration of knowledge, contexts and culture; and, (e) communication and languages, the same that contribute to the integrative



chair and the PISa the pre-professional practice (Larrea, 2015, Comisión de Innovación, 2019, p. 4).

The curricular fields stated in the redesigns group the subjects or analysis units located in the nine semesters that last the professional training of the career. Likewise, these fields are organized in the basic, professional and titling curricular units. Achieving synchronized inertia of academic action requires collaborative academic work among the actors in the educational process.

According to Cisterna, Soto y Rojas (2016) to face the challenges of modern education with a transformative vision that responds to the demands of the knowledge society "requires a strong commitment of educational actors that allow the harmonization in order to consolidate serious policies for educational strengthening at all levels" (p.305). This process of curricular redesigns for education careers in universities aims at the professional training of qualified teachers to achieve significant learning in the student.

### 2.3 Discipline and interdisciplinarity: associated concepts in curriculum design

There is no agreement in the meaning of interdisciplinarity. For some people, interdisciplinarity is considered as the search for a great theory, as a new stage for the development of science, for the reunification of knowledge. For others, it is the mechanism that allows defining the boundaries of their respective area of knowledge, a criterion that has been surpassed in scientific reality by the creation of certain integrated disciplines necessary for a more stable understanding of reality.

What worths showing is that the object of knowledge varies over time depending on its context and the advancement of the science, deepening this episteme, expanding on knowledge, while restricting it because there is an uninterrupted differentiation process of the science, where there was only one science before now there are several that allow deepening that knowledge (Kopnin, 1966, p. 88).

Interdisciplinarity arises in the twentieth century on the basis of the existence of disciplines, mainly to respond to the need to correct the mistakes of an overly compartmentalized positivist vision without communication between its parts. This is surely due to its ambiguous limits that this conception generates among the sciences and, above all, to solve problems of reality that cannot be achieved if an approximation is made from a single field. The purpose of this is to have a multilateral view of the phenomena under study. Larrea (2015) points out:

curricular redesigns must be underpinned by the epistemological rupture in the conceptualization of the new approach of knowledge organization to achieve meaningful learning by implementing innovative integration forms of scientific knowledge, incorporating inter and transdisciplinary models into the curriculum structure that exceed the assignment of different subjects and the limits of disciplines to build innovative strategies (p. 17).

Under this view arises the need to address curricular redesigns in higher education from an inter and multidisciplinary approach that sponsors the development of autonomous and realistic thinking. In turn, this enables the articulation of the substantive functions of higher education.



# 2.4 The foundations of the curriculum in higher education institutions 2.4.1 Teaching

Teaching considers that not any methodology is suitable to teach the different types of content since it is known that each discipline involves a method, a methodology and specific creative ways of developing the contents. In turn, dialogical and horizontal relationships in ecological interaction contexts between different teaching and learning systems. In this regard, Castillo (2010) says:

The teaching profession brings together the deepest ethical sense of the concept, which is to perform or consecrate itself to a cause of great social and human significance, where action between teacher and student goes beyond self-interest and gives the opportunity to give oneself seriously in an educational cause that transcends the one who plays it (p. 902).

### 2.4.2 Research

Research is a key role in higher education. Ander-Egg (1995) "defines it as a formal, systematic, rational, methodical, and intentional process in which the scientific method is performed as a thoughtful and critical procedure" (p. 71). In the context of vocational training, formative research effectively contributes to the innovation of the teaching and learning process.

Research is closely linked to teacher training so the building capacity is strengthened by the effective articulation between teaching and the systematic and thoughtful application processes of the scientific method in research. However, in the university context, goodwill is not enough to do research as part of the curriculum, some mental barriers to traditional conceptions and practices need to be overcome, such as the unwillingness of higher education authorities to allocate sufficient budgets. In this regard, Ayala (2013) reports that:

We do not have the resources to investigate, at least as we would or should do it, but that should not prevent us from finding the courage to think first about our research needs from our position in the world. Ecuador's university advanced not when it imitated foreign models, but when it solved its growth and development problems. That's our big challenge. Our main concern should be not depression or complacency. Neither is the complaint against the government and its policies. It must be the urgency to recover, from our own reflection, that the university is the headquarters of the reason (p. 71).

#### 2.4.3 Relationship with the society

The relevance of the university has to do with the contribution it makes to society. We cannot speak of the quality of academic training and scientific production under an investigative line, without being inextricably linked to the sectors of social, economic and productive development. In other words, bonding drives the relationship of the university community with social actors in a permanent dialogue of knowledge that bets on social transformation. Barreno et al. (2017)

define the relationship with society with teaching and research as the three main foundations of any University oriented towards the integral vocational training of students. This type of activity is the result of a planned action with an ethical commitment, and open to change (p. 34).



This definition is in agreement with the information presented by the Academic Guideline when saying that the relationship with society is articulated with teaching for the integral training of students, through the promotion of spaces of experiential experience and critical reflection; it also "articulates with research in the identification of needs and the formulation of questions that power lines, programs, and research projects; and by promoting the social use of scientific knowledge" (2019, Art, 4, literal (c).

# 3. Methodology

This study is qualitative since it tries to interpret the implementation reality of the academic program redesigns of the Faculty, according to the perceptions of students and teachers; i.e., that there was a clear understanding of the existing theory. According to Hernandez et al. (2014) "The qualitative approach, sometimes referred to as phenomenological, interpretative or ethnographic research, is a kind of support (which includes a variety of conceptions, visions, techniques, and non-quantitative studies)" (p. 16).

The design of the research is non-experimental and transversal since the variables were not manipulated. The relationships between the independent variable, curricular redesigns of the year 2016 and the dependent variable were described, perception of the relevant actors on the implementation in the period September 2018 – February 2019. This study was carried out in each of the careers of the Faculty of Philosophy, Letters and Educational Science. Depending on the scope, the study is descriptive, as the relevant aspects were examined following the steps of the scientific method.

The research considered the student population from the first to fourth semester, students who were coursing the redesign. The sample considered the following criteria: apply the survey to third and fourth-semester students of each career, alternating between morning and evening. A total of 443 students, 65.7% of women and 34.3% of men participated. To listen to the perceptions of the teaching staff, a focus group was organized with teachers and professors members of the Career Board and Redesign Commissions.

Two techniques were used in the collection of information: the survey targeting third and fourth-semester students and the focus group with teaching career representatives. The information provided was saved stealthily by the research team, which is contained in the archives of the Post-Graduate Office of the Faculty.

Sample per career	Frequency	Percentage - %
Social science	86	19.4
Psychopedagogy	52	11.7
Informatics	31	7.0
Physics and maths	35	7.9
Languages	56	12.6
English	58	13.1
Initial Education	74	16.7
Natural Science	51	11.5
Total	443	100.0

Table 1. Sample by Faculty careers



The processing and analysis of qualitative data used the discourse analysis by categorizing the main elements defined in advance by the study. The processing of quantitative data required the use of SPSS statistical software.

This study has semantic validity since the representation, relevance, and plausibility of the data was observed; hermeneutic validity, i.e., it was based on the theoretical basis of research, analysis, interpretation, and pragmatic validity through the descriptive relational implementation dynamic of the 2016 redesigns and their acceptance level of the students.

# 4. Analysis and interpretation of the results

The results of the research respond to the objectives set out in the study, aspects such as: participation of educational actors in the redesign processes 2016 were taken into account; curricular content for teaching, research and relationship with society, an integrative project of knowledge, and application and experimentation practices as fundamental axes that are part of the university work.

The analysis and interpretation of the results obtained in the survey consider as negative the alternatives: never, almost never and sometimes; whereas alternatives are almost always and always positive.

# 4.1 Participation of the educative community in the development and implementation of academic program redesigns of the careers

The survey on students, Figure 1, states that a considerable 86.45% did not participate in the discussions nor in the decision-making of the implementation redesign process of their careers. This response suggests that the traditional or vertical forms of educational management have not yet been overcome. The student is still considered as the object of intervention in which the responsibility of what, how and why the educational processes are decided at the higher levels between authorities and teachers. This intervention form has caused students not to take over the project, and consequently, there is little understanding of the purpose of the redesign.

In relation to the above, there was weak participation of teachers due to little information and commitment to the implementation process of the redesigns. However, in each of the careers, isolated efforts have been made that have led to the "ghettos" formation of teachers without an adequate guideline to guide the implementation process of the academic program redesign.

Also, the perception of students is confirmed, noting that students have very little involvement in the implementation of the redesign, "but the student claim is growing, because they feel that the subjects and the time load of the redesign do not respond to the teaching specialization" (Grupo focal, docentes, Enero 2019).



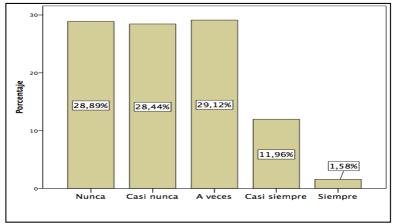


Figura 1. Participación activa del estudiantado en la implementación del rediseño

# 4.2 Teachers in the redesign

### 4.2.1 Relationship of the redesign subjects with the graduation profile

In relation to the subjects that students study in the redesign of the careers, if considering the alternatives almost always and always sum 47.43% that indicates that these do contribute to the graduation profile. However, 19.68% of students indicate never or almost never, because for this group the analysis units do not respond to the graduation profile of the careers (Figure 2).

From the beginning of the academic program implementation as expressed by teachers in the focus group:

A number of inconsistencies and weaknesses in the curriculum were observed, both in training fields, in the logical sequence of the subjects and in the time load. It was even said that in some cases, the curriculums do not respond to the career's graduation profile (Grupo focal, docentes, enero de 2019).

However, it was also said that the redesign does respond to the graduation profile; however, many subjects are new, with novel content but there are no specialists in these subjects. There are some materials that are incompatible with what is required; there is duplication of content; too many general subjects and few in the specific fields of the careers; in some cases, pre-professional practice has been given greater importance without an adequate conceptualization and understanding of changes in redesigns, e.g. Integrative subject, PIS, PAE (Grupo focal, docentes, enero de 2019).



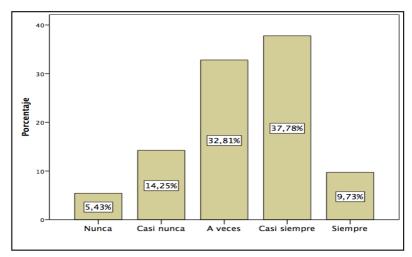


Figure 2. The subjects that the students receive are related to the graduation profile of the careers

### 4.2.2 Career specialization subjects in the academic program redesign

In Figure 3, the alternatives almost always and always represent 45% of the responses of students that indicate that the subjects of the curriculum redesign do respond to the specialization of the careers. However, 21% of students point out that never and almost never these subjects respond to the specialization, perhaps it should be asked about this, whether the redesigns actually considered the relevance to their elaboration.

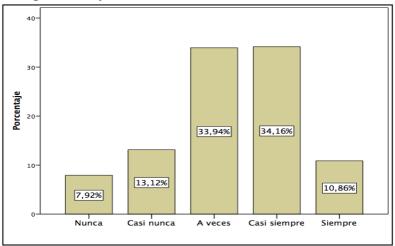


Figure 3. Curriculum redesign subjects respond to career specialization

The perception of teaching is that the subjects respond to the specific field of the profession. However, it was said that in some careers the specialty starts only in the fifth semester, or that the time load is lower for subjects in the specialty's own field, which does not allow to deepen its contents.

On the other hand, it is found that the distribution of the time load, both for teacher training and for the specialty, does not satisfy the majority of students and teachers of different careers. Generally, an insufficient number of hours is set for specialty subjects. This situation limits the in-depth approach of the contents of the different subjects.



### 4.2.3 Time load for teacher training

If considering Figure 4, the trend is almost equal in the first three alternatives for the time load assigned to the subjects of teacher training, i.e., there are students who say that the time load is insufficient compared to others. This takes to the common point that the Faculty must agree on to harmonize subjects, contents and time load for this field of teacher training.

This agrees to the information presented in the focus group with teachers, "pedagogy and didactics do not have sufficient teaching hours to deepen the development of the contents" (Grupo focal, docentes, enero de 2019).

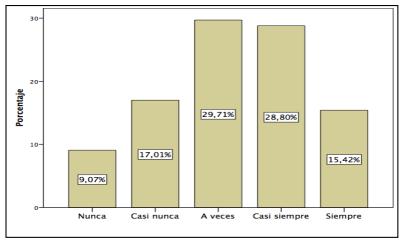


Figure 4. Time load distribution for the teacher trainin

In addition, the use of traditional methodologies in the teaching and learning process was found to persist. With the implementation of the redesigns, the classroom work has not been innovated and therefore pedagogical renewal in methods and methodologies is insufficient. The focus group reflected on this problem, since, in principle, a redesign changes methodologies, methods, contents, structures, but in this case, no significant changes are observed.

Facing the alternative if the subjects respond to relevance, the answers are very similar to the previous ones; it seems that redesigns respond weakly to specialization and teacher training. The explanation may be, according to what was expressed in the focus group, in the existence of general subjects with contents that do not contribute to the two main training fields, namely: specialization and pre-professional practice.

# 4.2.4 Application and experimentation practices (PAE) in the teaching-learning process

The Faculty's Innovation Committee notes that "PAE is the time that prioritizes the application of knowledge" (Comisión de Innovación, 2019, p.3). In other words, PAE hours are assumed as an academic process of linking scientific theory with socio-educational practice.

Under this consideration, students were asked whether PAE contribute to the teaching and learning process; negative responses represent a little more than half of the answers, as shown in Figure 5.

Unlike these student appreciations, professors see it as a positive aspect to strengthen and feedback knowledge. How it is implemented depends on the initiative and understanding they have about PAE in each career.



PAE hours have forced us, in some cases, to think about how to organize ourselves in a more appropriate way in the application of theory to reality; also, in other cases it has made it possible for us to break with traditional pedagogical models that prevented meaningful learning (Grupo focal, docentes, enero de 2019).

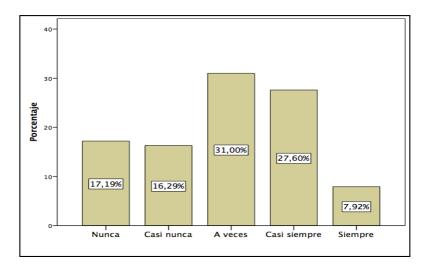


Figure 5. PAE hours contribute to the teaching-learning process

### 4.3 Research on the redesign

Figure 6 shows a positive trend in assessing research capacity development with the implementation of the redesign (46.15%) compared to a negative 19%; however, there is 34.84% who doubt on the contribution of the redesign to the development of investigative capabilities. This result challenges the process being implemented, in the sense if students are actually apprehending the theory and methodology of scientific research. One wonders whether students feel part of the research process, whether they have clarity on what they are going to investigate, why and what for.

Based on the perception of teachers who participated in the focus group, curriculum redesign does contribute to research training. It was further stated that if there was an initial effort to produce and develop the research tools, the instruments already developed in previous projects were being used in the following semesters. This causes the investigative process to be instrumented, making students "operators" of research, not active subjects prepared to build proposals for changing and transforming the education system.

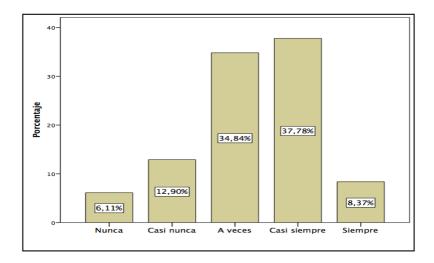


Figure 6. The implementation of the redesign strengthens the development of research capabilities

Undoubtedly, research is the primary action in higher education, as established by the World Conference on Higher Education"no other time in history has been more important than investment in higher education, because of its status of primary force for the construction of knowledge societies... and to encourage research and innovation" (UNESCO 2009, p. 2).

In the focus group, teaching also expressed that the challenge of academia is to find strategies that allow the impetus of formative research in all subjects. For example, it was emphasized in the development of research and reading capacity in the students that allow them an adequate investigation and interpretation of phenomena in the socio-educational context.

### 4.3.1 Integrator Knowledge Project – PIS in the vocational teacher training

PIS, as conceived by the CES, responds to the problems from an interdisciplinary and multidisciplinary approach that need the input of the different training fields of the curriculum redesign. It should be noted that each PIS responds to a systematic logic that starts from the most general fact of the research of the educational contexts and their environment up to the specificity of each career.

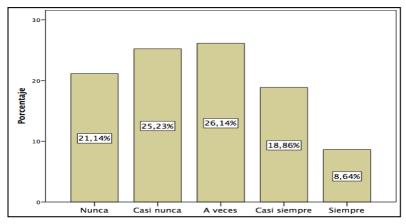


Figure 7. PIS contributes significantly to the professional training of students



On PIS contribution to vocational training, the perceptions of the student are mostly negative, as shown in Figure 7. This assessment is explained by the practice of no adequate treatment of PIS as an innovative methodological strategy. There is a misguided vision of looking at PIS in an isolated and fragmented manner, unrelated to its next or previous PIS, thus limiting the articulation between semesters and interdisciplinarity. In short, there is no adequate understanding of the teaching or students of the epistemological, psychopedagogical and didactic conception that will guide the implementation of PIS.

These responses are corroborated by teachers who describe that the way the PIS is implemented does not achieve a significant contribution to the vocational training of the future teacher. There are aspects that do not contribute to the purposes of PIS, such as misunderstanding of the scope and objectives of the PIS. In addition, there is an overload of activities inherent in the development of PIS. It is also necessary to design appropriate and consensus strategies and methodologies to plan, implement and evaluate the PIS (Grupo focal, docentes, enero 2019).

In other words, "The development of PIS is not significant research, instead, it relies on repetitive theoretical information, but as a research contribution it is limited". In addition, it was said that it should be asked: "whether the periodicity of the PIS is adequate or time-extending is required" (Grupo focal, docentes, enero 2019).

It should also be noted that "educational institutions do not find in PIS any contribution, it is seen as a distracting factor but the school's authorities must authorize their realization due to the provision of the Ministry" (Grupo focal, docentes, enero de 2019). In addition, it was suggested that from the experience of the PIS implementation of the previous four semesters, a reform be carried out so the PIS in the first semesters is a theoretical and methodological training. While the application in the socio-educational reality context starts from the third or fourth semester.

Other proposals were: a) Reorienting the concept of PIS as an articulating axis of inter- and multidisciplinary work; b) Problems should be formulated according to the contextual and complex realities of educational environments; c) Other spaces must be opened so that it is not only in the educational institutions in which this activity is carried out but depending on the specialty it can be incorporated into other institutions and organizations that are linked to society; and, d). It is necessary to monitor the PIS to understand its complexities and dynamics (Grupo focal, docentes, enero de 2019).

They also believed that the contents of the subjects did not contribute to the realization of the PIS. There is poor articulation and little contribution of the subjects, as there is still a departmentalized management of each of the subjects, away from a comprehensive vision of the curriculum. Interdisciplinary work on the curriculum contents of the subjects is not yet achieved with the application of the redesigns.

### 4.4 Pre-profesional practice in the redesign

The function of pre-professional practice is the application of knowledge in the specific specialization field to strengthen skills in professional practice in the educational field. In relation to this, the perception of students is significant (55.05%), because they show that the practice that develops in the curriculum redesign strengthens the teaching vocational training in the development of their capacities (Figure 8).



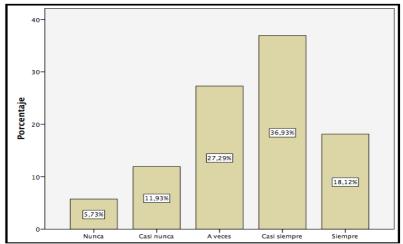


Figure 8. The pre-professional teaching practice in the curriculum redesign strengthens the teacher training

These assessments are also positively valued by the teachers that participated in the focus group. It is worth noting that the contribution perception of the pre-professional practice by the students is still limited since they have not yet performed this activity by reaching the fourth semester. Pre-professional practice develops more forcefully at higher levels of career training; however, in the first semesters, they have an initial approach through observation practices allowing them a better understanding of the educational reality.

### 4.5 Reform of the academic program redesign of the careers

When students were asked if they agree to reform the academic programs of the careers, the answer shows a blunt yes to reform to improve current redesigns. These responses reaffirm perceptions that redesigns do not respond significantly to the career graduation profile, as there was no prior understanding and training of the educational community.

In short, the educational community of the Faculty of Philosophy, Letters and Educational Science shares the initiative to make improvements to academic program redesigns in such a way that they respond strongly to professional profiles of the careers. As well as the relevance of future education professionals with the needs and requirements of the education system in the different areas of knowledge.

### 4.6 Main difficulties in the implementation of the career redesigns

- The focus group with teachers noted that the redesigns were imposed by the CES to respond to government policy on higher education. It was stated that they were even forced "to assume by the name of the careers, the curriculum, the time load, the problem, and even the same curricular contents" (Grupo focal, docentes, enero de 2019). These answers explain the inconsistencies found at the time of the implementation of the redesigns in the careers.
- It is worth mentioning that although the redesigns were created taking into account the traits of each career, there are cases that show substantial weaknesses in the fields of vocational teacher training and especially in the specific field of the profession. The subjects taught with the curricular redesigns are not relevant to the specialty of the career and the time load does not respond to the reality of the learning process (Grupo focal, docentes, enero de 2019).
- Research is still very limited and anarchic, with the implementation of the redesigns it would seem that there is no correspondence between research theory and



- practice. Also, careers show serious difficulties at the time of the organization and implementation of the PIS.
- There is a segmented view of educational work, subjects very often set boundaries between one subject and another. An individualized work of teaching persists, which prevents the development of an inter and multidisciplinary work necessary for the realization of socio-educational studies that respond to the needs and demands of citizens.

### 4.7 Guidelines for improving academic program redesigns

According to the responses issued by students and teachers, the following suggestions are found to improve academic program redesigns.

- Review the curriculum and time load in the fields of theoretical training and professional practice to respond to the graduation profile of the career.
- Strengthen the academic and administrative organization to improve the implementation of academic program redesigns in the careers
- Establish conceptual and methodological strategies for the implementation of PIS and PAE in careers.
- Define an administrative academic management system that optimizes the management of pre-professional practice throughout the Faculty.
- Promote interaction spaces with the participation of students, teachers, and authorities for the promotion of thoughtful and critical thinking in the implementation of the redesigns.
- Organize permanent teaching update processes to respond to the new vocational training challenges covered by curriculum redesigns.
- Strengthen scientific research processes that respond to the socio-educational problems of the country that consider the strategic lines of the Faculty.

### 5. Conclusions

The results of the study of the redesigns that began in the academic period 2017–2017, which is in the fourth semester of implementation, allow the following to be concluded:

Academic program redesigns need to be rethought with a comprehensive vision in order to respond to the guiding principles of the Faculty. The needs and demands of training of teaching professionals in the country must be considered to demonstrate their relevance. As Larrea (2015) points out "There is no clear diagnosis of the needs of actors and productive, political, social, environmental and cultural sectors for the organization of preprofessional practices, therefore, the efforts that are made are not observed" (p. 11).

Poor participation of the educational community in the elaboration and implementation of academic program redesigns of the careers. This situation is probably due it was imposed by the CES, therefore, it was neither a necessity nor a demand from the University. For this reason, the result of this is that there is no appropriation of it by the teachers and the students. In this sense, Durán (2016) states that emancipatory education "is a participatory process of social construction that breaks with those oppressive situations and colonization that prohibit being, saying and doing..." (p. 38).

The curriculum of the careers mostly do not respond to the graduation profile, the subjects do not reinforce the specific field of the specialty or teacher training. This situation is explained because CES designed a generic curriculum model with which guided redesigns



in education careers. However, it is necessary to review and make the adjustments that are relevant, so that they respond to the professional profile of the careers.

The PIS has not found an adequate way to be applied in the reality of the educational context. Although SENESCYT (2013) states that "PIS is the first educational experience that enables the student with the learning research process..." (p.18). A weak conceptual and methodological understanding of the purpose of teaching's development of integrative knowledge projects still persists. The absence of a conductive line and the lack of teaching experience in carrying out this activity has made it a useless and unvalued work overload. In addition, the segmented and individualized teaching work that prevents collaborative and interdisciplinary work in the development of PIS.

PAE hours, as we know, are part of the activities carried out in the classroom to fix knowledge in practice; it is the theoretical scientific application in social practice. This fact agrees with Carrión et al. (2018) "Practice as the starting point of knowledge, as a means of testing theory and as a tool... to solve problems" (p. 27). The application of PAE creates confusion because it is believed to be an extracurricular activity, apart from the teaching and learning process. It is vital to establish the relevant pedagogical guidelines for their proper implementation in the different subjects since this is an aspect that is positively valued by students and teachers in vocational training.

In the work of the academy, research is one of the most important functions that must be present throughout the educational process. The incorrect practices that are happening in universities must be overcome, where investigation only occurs by obligation. In this perspective, Barreno et al. (2019) state that "The fundamental functions of the university are teaching, research and linkage as a dynamic and integral whole whose ultimate purpose is vocational training, scientific production and contribution to the problem solution of the society" (p. 38). In other words, academic program redesigns should articulate these functions in order to strengthen and enhance research capacities in the teaching profession.

Emphasis has been done in the need for the updating of knowledge to teachers in the use of appropriate methodological strategies, in the deepening of content in the specific field of the specialty, and in totally new subjects that are not part of the expertise fields or the field of professional practice. These are aspects that must be considered from the authorities and teachers in order for the training of the student to be integral and integrative of the implementation process of the academic program redesigns.

# Acknowledgment

The authors thank the people who provided the information for conducting this study; to the Innovation Commission and the authorities of the Faculty of Philosophy, Letters and Educational Science.

### References

- Ander-Egg, E., (1995). Técnicas de investigación social, 23a. ed., Argentina.
- Ayala, E. (2013). La investigación científica en las universidades ecuatorianas. Anales, 57(1), 61-72.
- Barreno, S., Haro, O., y Flores, P. (2019). *Relación entre rendimiento académico y asistencia como factores de promoción estudiantil.Revista Cátedra*, *2*(1), 44-59
- Barreno, S., Haro, O., Llumiquinga, R. y Taco, F. (2017). *Universidad y sociedad.* Quito Ecuador: Ediciem.
- Carrión, F. (2002). *Documento de Extensión Universitaria*. Quito: Facultad de Filosofía, Letras y Ciencias de la Educación.
- Carrión, Durán, Montaluisa y Rodríguez (2018). *Propuesta educativa.* Quito: Facultad de Filosofía, Letras y Ciencias de la Educación.
- Cisterna, C., Soto, V. y Rojas, C. (2016). Rediseño curricular en la Universidad de Concepción. *Calidad en la educación, 44*(1), 301-323.
- Consejo de Educación Superior, (2019). Reglamento de Régimen Académico. Gaceta Oficial del Consejo de Educación Superior. Quito, Ecuador.
- Comisión de innovación Facultad de Filosofía, Letras y Ciencias de la Educación, (2019). Propuesta Educativa. UCE, Quito, Ecuador
- Durán J. (2016). *Las escuelas Zapatistas*. Quito Ecuador:Universidad Central del Ecuador Asoprofi.
- Durán J., Rodríguez F., Carrión F. y Montaluisa A. (2018). *Construcción de la propuesta educativa*. Quito Ecuador. Universidad Central del Ecuador.
- Hernández R., Fernández C. y Baptista M. (2014). *Metodología de la Investigación*. México. Sexta edición McGRAW-HILL
- Kopnin, P. V. (1966). Lógica Dialéctica. Ed. Grijalbo. México.
- Larrea, E. (2015). El currículo de la educación superior desde la complejidad sistémica. Recuperado de <a href="http://www.ces.gob.ec/doc/Taller-difusion/SubidoAbril-2015/curriculo">http://www.ces.gob.ec/doc/Taller-difusion/SubidoAbril-2015/curriculo</a> es-sistemico%20-%20e%20larrea.pdf
- Unesco. (2009). *Conferencia mundial de la educación superior*. Paris Francia. Recuperado de http://www.unesco.org/education/WCHE2009/comunicado\_es.pdf
- SENESCYT. (2013). *Proyecto integrador de saberes (PIS)*. Quito Ecuador: SNNA.
- Torres, J., (1998). *Globalización e Interdisciplinariedad: el currículum Integrado*. Ed. Morata. Madrid.



### **Authors**

**SEGUNDO BARRENO-FREIRE.** Ph.D. in Educational Research from Universidad de Alicante (Spain) in 2018. Master in Educational and Social Project Management at Universidad Central del Ecuador in 2003. Bachelor of Education Sciences at the Faculty of Philosophy, Letters and Educational Sciences at Universidad Central del Ecuador in 1997

Tenure professor from the career of Pedagogy of Computer Experimental Sciences at Universidad Central del Ecuador; Professor and Thesis Advisor of the Graduate Institute of the Faculty of Philosophy, Letters and Educational Science. Researcher in the socioeducational fields, planning, execution, evaluation of educational projects, among others. Author of published books and articles.

**GERMANIA BORJA-NARANJO** has a Master in Social Science, specialization in environmental studies by the Latin American Faculty of Social Sciences (FLACSO) headquartered in Ecuador (Ecuador) in 2002; Specialist in Gender, Management and Public Policies by the Latin American Faculty of Social Sciences (FLACSO) based in Ecuador in 1999; Graduated in Education Science, Professor of Middle Education in the Specialization Philosophy and Socioeconomic Science by the Faculty of Philosophy, Letters and Educational Sciences of Universidad Central del Ecuador in 1989.

She is currently a tenured professor at the Faculty of Philosophy, Letters and Education Science of Universidad Central del Ecuador. Her main research topics include education, gender and environment, planning and public policies. She is the author of books, book chapters and articles published in indexed journals.

**CECILIA MAGDALENA JARAMILLO-JARAMILLO** has a master in Higher Education Universidad Central del Ecuador (2016), Bachelor of Education Sciences, specialization in Philosophy and Socioeconomic Sciences from Universidad Central del Ecuador (2006). Specialist in gender, human rights, and development. Author and co-author of several books and articles in the fields of her specialty.

Currently, she is a full-time professor at Universidad Central del Ecuador, Career in Pedagogy of History and Social Sciences, Faculty of Philosophy, Letters and Educational Science. Teacher and tutor of different postgraduate programs.

