A Performance-Centred Competency-Based Approach to Quality University Teaching

M. F. Cejas Martínez[a], D. J. Mendoza Velazco[b], M. Navarro Cejas[c], J. L. Rogel Villacis[d], Y. M. Ortega Freire[e]*

[a] *National University of Chimborazo (UNACH) / Universidad Nacional de Chimborazo UNACH, Riobamba, Ecuador*
[b] *National University of Education (UNAE) / Universidad Nacional de Educación UNAE, Azogues, Ecuador,*
[*] *derling.mendoza@unae.edu.ec*
[c] *Regional Authonomous University of the Andes (UNIANDES) / Universidad Regional Autónoma de los Andes UNIANDES, Riobamba, Ecuador*
[d] *Central University of Ecuador (UCE) / Universidad Central del Ecuador UCE, Quito, Ecuador*
[e] *University of the Armed Forces (ESPE) / Universidad de las Fuerzas Armadas ESPE, Latacunga, Ecuador*

Introduction. In order to encourage more flexible working environments and establish generators of sustainable development for participating countries through an educated society, various international organisations that intervene in the quality dimension within the framework of a systemic approach to Higher Education, including the World Bank, have made multiple efforts to establish various recognitions, certifications and credits pertaining to competency-based education.

Materials and Methods. The research, featuring a study of theoretical-interpretative design, was based around the qualitative paradigm. Information was obtained by means of semi-structured interviews with 14 lecturers from different universities in the city of Quito in Ecuador. The data obtained were triangulated with a review of the literature carried out by the researchers.

Results. The informants considered cognitive competencies to be the most relevant within the context of teacher formation. Research, planning and organisation skills were not established in importance due to university professionalisation. Additionally, the need to establish curricular changes in the Ecuadorian university pedagogy was confirmed.

Discussion and Conclusion. After contrasting the opinions of university professors and formation theories, a theoretical reflection is presented in which the importance of unifying professional formation and investigative competencies is emphasised. This unification allows the quality of higher education centred around the teacher as the main actor to be increased.

Keywords: research, educational quality, higher education, learning, teacher formation, competency-performance

Подготовка преподавателей и оценка их деятельности на основе компетентностного подхода

**М. Ф. Сехас Мартинес¹, Д. Х. Мендоса Веласко²*, М. Наварро Сехас³,
Х. Л. Рогель Вильясис⁴, Я. М. Ортега Фрейре⁵**
¹ *Национальный университет Чимборасо* (*UNACH*)*, г. Латакунга, Эквадор*
² *Национальный университет образования* (*UNAE*)*, г. Азог, Эквадор,*
* *derling.mendoza@unae.edu.ec*
³ *Региональный автономный университет Анд* (*UNIANDES*)*,
г. Риобамба, Эквадор*
⁴ *Центральный университет Эквадора* (*UCE*)*, г. Кито, Эквадор*
⁵ *Университет вооруженных сил* (*ESPE*)*, г. Латакунга, Эквадор*

Введение. Профессиональная подготовка преподавателей предусматривает выбор передачи знаний среди множества вариантов. Университеты чаще всего предлагают учебные программы, ориентированные на потребности меняющегося мира. В связи с этим ведущие международные организации, включая Всемирный банк и ЮНЕСКО, предложили провести переоценку роли высшего образования в социально-экономическом развитии различных стран в рамках компетентностного подхода. Цель исследования – выявление степени формирования исследовательских компетенций у преподавателей Эквадора.

Материалы и методы. Исследование основано на качественном подходе к изучению теоретико-интерпретационного проектирования учебного процесса. В качестве ключевых информаторов участвовали 14 преподавателей из нескольких университетов г. Кито. Для сбора материала использовалось полуструктурированное интервью. Полученные данные были сопоставлены со сведениями, извлеченными из теоретической литературы по данной теме.

Результаты исследования. Информанты считают когнитивные компетенции наиболее релевантными для подготовки преподавателя. Исследовательские и организационные навыки не были признаны столь же важными в связи с сокращением специализаций и профессионализацей университетов. В ходе исследования была обоснована необходимость коррекции учебных планов высших учебных заведений Эквадора.

Обсуждение и заключение. После сопоставления мнений университетских профессоров и образовательных концепций с помощью теоретической рефлексии была продемонстрирована актуальность включения в профессиональное образование развитие исследовательских компетенций с целью повышения качества высшего образования и сосредоточения на личности преподавателя как главном акторе образовательного процесса.

Ключевые слова: исследование, качество образования, высшее образование, обучение, подготовка преподавателя, компетентность

Introduction

In recent years, advances in higher education teaching have led to the acceptance of far-reaching changes in the context of developing countries; this tendency is even more pronounced in developed countries. As a consequence, a challenge to the professional formation of university teaching staff is presented by the large number of pedagogical alternatives for the transmission of knowledge. Nevertheless, in the university institutions themselves, formation programmes increasingly promote spaces aimed at facilitating responses to the demands and requirements of a changing world.

The increasingly urgent search for consistent excellence on the part of university staff coincides with the use of multiple resources that are made available to university students, including library services, telematics rooms, documentary sources, spaces for recreation and adequate classrooms, as well as teachers who develop the curriculum and deliver lessons.

The university sector has been extensively preoccupied with the introduction and use of new information and communication technologies (ICT), which comprise a first-class instrument for use by university students as a consequence

of innovative strategies involving the use of these technologies in the development of new knowledge applications, in the expansion of secondary education to higher education and in the increasingly dynamic field of research.

As a consequence, a need to stimulate specialised knowledge discourses through teacher formation and research skills is becoming more evident in the increasingly universal educational orientation of universities. In this regard, international organisations such as the Organisation for Economic Cooperation and Development (OECD), the World Bank and the United Nations Educational and Cultural Organisation (UNESCO) have proposed a re-evaluation of the role of higher education in the educational, economic and social development of the relevant countries. This central concern for the role of education in delivering research advances and innovations has been extensively discussed in recent studies on university and curricular policy, according to which education is seen as a dynamic factor in social development and the transformation of society.

Under these conditions, a similarly determinative aspect of the relationship between society and education is seen in the process of globalisation, which demonstrates that the relationship is not to be seen in mechanical but rather in dialectical terms. The process of globalisation has generated the opportunity to identify the presence of different educational approaches that arise in the field of Higher Education in different parts of the world, as well as the diverse approaches that revolve around the new challenges and the redefinition of the responsibilities of educational actors, whose commitment is condensed both in the educational institutions and in wider society. For [1], education, which has long been part of the social superstructure, has by its very nature a relative autonomy with respect to the social component. Therefore, it has the capacity to contribute to and promote changes that occur in the educational component and, consequently, in the activity that entails the objectives of the educational system according to [2].

Thus, within the framework of professional activity in universities, university professors have to employ a wide variety of educational techniques and strategies based on various psychological positions, such as strategic teaching, teaching from complexity, focus models of teaching and assessments of good teaching or quality in higher education, which define the role that teachers play in today's higher education.

Among other factors, the role of the university teacher in the face of new social, economic and political realities must rise to challenges demanded by competency-based approaches as a new pedagogical trend, forcing teachers to strengthen or augment the skills and knowledge they already possess, as well as enriching the work they do with new capabilities. To this is added the need for the education system to increase its effectiveness in the formation of university graduates, whose responsibility is to contribute and promote the advancement, development and construction of modern societies.

It is of vital importance for university education that the genealogy of educational policies be included in the debate to allow a meticulous description of the conditions of discourses that constitute strategies to uncover an entire geographical space that permits hegemonies and technologies of control and constitutes a domain for the exercise of teaching [3].

However revolutionary they may seem, changes occurring in the university curriculum or curriculum must be in conformity with previous patterns of study. Those responsible for the management of university departments have to accept the imposing challenges of globalisation, which considerably affect the vast majority of countries. However, it should be borne in mind that the implementation of these changes in educational processes will only be possible in the context of a programme aimed at transforming the development and formation policies of educators, thus achieving high levels of quality in the educational context.

In the case of university professors, the study of competencies has been developed

at the international level with the aim of generating teaching profiles that support the orientation of the formation/research of the teaching staff. Teachers in Ecuadorian universities require knowledge, skills and investigative attitudes that are considerably differentiated from those that were needed 20 years ago [4; 5]. Therefore, the objective of this research is to carry out a theoretical-critical analysis that demonstrates the importance of establishing research competencies within the formation of university teachers in Ecuador in order to establish the conditions for quality higher education.

Formation and education by competencies. From a hermeneutic perspective, the required changes can be referred to in terms of three major dimensions generated within the educational dynamic:

– knowledge;

– the intellectual capital of the institutions;

– innovation as the basis of a development process.

In order to ensure that the new educational modalities meet stated objectives, clear and well-defined processes, involving the demonstration of knowledge, skills, commitment and personal attitudes, ultimately determine education as a process that goes beyond the transmission of knowledge and skills. In this context, it is important to understand competency-based education as fundamentally focused on the construction of discourses oriented towards the promotion of knowledge [6].

The concept of educational quality presupposes an acceptance of existing competitiveness in educative institutions, assuming the derived commitments of the role of universities in offering better services to society. This implies, in turn, a contraction of commitments not only of teachers, but of all its organs and levels, considering it as a continuous challenge. These considerations of a general nature with respect to the changes that affect the educational system lead to an accentuation of social dimensions that is only possible through education, which at the same time provides a means to achieve unity and conduces to the management of conflict situations [7].

In this sense, increasing the competitiveness of education comprises an integral approach to raising the potential of individuals faced by the rapid transformations taking place in contemporary society. Therefore, a university is essentially required to maintain a double position: firstly, oriented towards innovation, and secondly – towards the creation of knowledge. At this stage, it is not necessary to bring democratisation into the discussion so long as an accelerated pace can be maintained to remain abreast with rapid global transformations.

In view of this, a strategy for the modernisation of higher education must be considered that avoids undermining the benefit of the majority at the same time as preserving its own self-interest and autonomy.

Taking a broad and complex perspective, formation in skills is not only the responsibility of educational institutions, but also of society, the labour sector, the family and the person [7]. According to the authors, the formation of competencies takes place across five axes. The first of these axes comes under the remit of educational institutions, this competence is currently distinguished by the impulse to creativity. It is necessary to promote innovation in order to solve problems. These are the factors that permeate teaching practice.

The second axis comes under social responsibility. University social responsibility is a moral building competition. The university and higher education institutions are the main player. Developing social promotion projects, with ethical principles aligned to sustainable development. Social responsibility seeks to make the knowledge imparted within an environment of respect, responsibility, equality and inclusion.

The third axis corresponds to the work of actors within the educational system. The actors involve the responsible management of the university. They are referred to as responsible campuses; they perform project procedures. They analyze the working climate, human resources, internal management, care and benefit of the environment, considering all stakeholders of the university.

The fourth axis corresponds to the family. In higher education, the family plays an important role in the youth period. The role of adolescence plays a very important role. This factor is decisive for the success of students. The parents or guardians are about the relationship family – university; it allows to experiment alternatives of relationship of the university with the family. It is beyond information on the academic performance of its members. The family axis allows the development of work sessions with students on the possibilities of maintaining or improving the perception of the family. In universities during work sessions, opinions are collected from the students themselves. Opinions on these forms of parent relationship at the university level are well known. Factors that are present in regular or poor performance are explored, even if family functioning and conditions are good.

The fifth axis is represented by the teaching subject. It represents the independence of being. It is the one that relates to the external and internal environments of each individual. The subject as manager of his own knowledge, is responsible for the dissemination of knowledge, research and training of models of knowledge production that guide scientific research activity. It is responsible for generating local and national development in which the principle of materiality of all stakeholders is included. In addition to these axes, the quality components proposed by [8; 9] refer to the identification of key values of formation for higher education, the application of recognised formation processes and high-level results.

The educators of the future must turn their gaze towards the search for continuous improvement and teacher formation, factors that have a notable impact on the teaching exercise, as well as on working conditions, professional reformation, institutional infrastructure and didactic resources. Formation through the development of skills is based on the knowledge of all current changes and needs, with the aim of improving the quality and efficiency of occupational performance, thus facilitating the formation of more integrated profes-sionals who are capable of contributing to the organisation of learning and the acquisition of knowledge [10].

Learning as part of the formative process and development in teaching for universities. Learning is the process or set of processes through which ideas, skills, behaviours or values are acquired or modified. All changes or modifications are the result of study, experience, instruction, reasoning, or observation. Learning as a process of relative and permanent change is distinguished by the behaviour of a person generated by experience. The teacher is the one who has the experience.

The teacher as a subject, always seeks an improvement in his status, knowledge and life. Improvement is transmitted in education. When students don't perceive educational lessons, the teacher must understand the difficulties that arise. By perceiving these difficulties, there are significant changes in teaching that determine the process of teacher training and improvement. In this way, it can be identified that the determining factor in learning is changes that allow the search for an improvement in training.

In this sense, learning should not be interpreted as a relatively permanent change in behaviour due to experience, since this cannot be explained by a transitory state of the organism due to the maturation or tendencies of innate responses. It is necessary to emphasise that apprenticeship programmes that take place in the workplace presuppose the existence of a comprehensive previous preparation in the work that is to be carried out and the work experience under the supervision of the experts. This must also be flexible and allow changes according to the needs of the university. The complexity of the competitive environment can be explained in terms of changes that have originated in the university organisational environment [11].

Under the framework of this study, the interpretation of the concept of labour competency from the educational perspective has been conceived as an educational process in developed countries linked to the learning processes that determine

individual development processes. The response to these difficulties was oriented towards the conception of a competency-based approach to education, which aims to support an integral professional formation approach that, by design, connects the world and society in general with the world of education and educational formation [12].

Competencies can be interpreted as underlying features in an individual that are causally related to successful performance in the workplace. This highlights the differences in knowledge and the cognitive and behavioural skills that occur in people in their work functions [13]. Thus, competencies can be related to performance, becoming a causal model where the person can indicate the reasons, the character traits, the concept itself and the knowledge generated by a situation, which serve to predict behaviours that, in turn, predict concrete unemployment. Any plan or programme of formation in an educator is oriented mainly towards didactic and psycho-pedagogical formation, since foreseeing the very moment at which a person understands that it is necessary to update his/her permanent and fundamental knowledge of the subject taught by the teacher [14].

In this sense, the implementation of professional formation through which teachers with basic skills are trained is of vital importance at present for the education sector. An example of this would be the ability to contemplate and analyse what is being done in order to design specific actions that promote skills such as perception and evaluation of reality, design and development of professional actions, management of scientific and technological information, formation and permanent formation, teamwork and professional values.

Formation by competencies – integration of the educative context and the productive context. Since competency-based formation is achieved through the acquisition of knowledge combined with the development of skills and activities, it can be understood as a process that takes place over the whole lifetime of an individual with the intervention of formal instruments leading to the achievement of the desired competency. Therefore, factors inherent to the specific competencies – like learning in general – allow a space to be generated in the context defined by a network of institutions, involving both formal and informal relationships throughout life, which is referred to as the process of continuing education. Due to the application and implementation of the methodology that it entails, this novel approach is becoming increasingly popular in universities [15]. Likewise, educational spaces show interest in adapting the educational programmes to the demands of the profiles required by the social sector.

When considering this process, it is necessary to take three main aspects into account. The first refers to the identification of competencies, defined in terms of a method or process that is followed in order to establish the competencies that are brought into play in order to carry out a formation activity in a satisfactory manner. The second is conceived as the normalisation of competencies, defined as the result of the consensus of the actors of the process, i.e., the university education sector. Therefore, normalisation should be understood as a pattern of comparison and not as a law of mandatory application [16].

Finally, the third aspect is identified as the certification of competencies, implying a recognition of a competency demonstrated by the university teacher regardless of the way in which it was acquired. This consists in a process of determining the evidence of performance and knowledge, as well as the understanding that a person shows in relation to a work function. In this way, competency-based formation is understood as a process that seeks to emphasise the abilities of people based on effective performance in the workplace [17].

It is not only through adherence to standards that educational formation programmes are oriented to generate competencies, but also through flexible pedagogical strategies, in which case the educational component is vital for the success of the methodology in the university administrative organisations. In this way, competency-based formation in universities also faces the challenge of rethinking the

development of curricular design considering labour competencies as an object of accreditation, rethinking the formation and updating of not only didactic knowledge, but also knowledge that is the product of technological processes, replant new criteria that allow the evaluation of the teacher and the effective performance of the graduates as well as creating new spaces to accommodate other educational tools such as those derived from non-educational administrations, and work experience, which provides the legitimacy to aspire to the accreditation of formative and professional achievements.

From the perspective of this study, there are three dimensions that cannot be ignored when thinking about the competencies of university professors, namely, basic, specific and transversal competencies. According to [18], these basic competencies are considered minimal for the practice of teaching.

For [19], specific competencies are represented as those related to the ability to teach with the idea of generating a deep and meaningful experience in students through planning, didactics and evaluation. Finally, transversal competencies are described by [20] in terms of the ability to maintain a positive and affective atmosphere in the classroom, as well as to reflect on pedagogical practices and maintain good quality interactions with students. Such transversal competencies grant an affective component and are linked to relational aspects.

Professional profile. According to [21], a teaching profile comprises the set of roles, knowledge, skills, abilities, attitudes and values necessary for professional performance. All these conditions are in accordance with the social, economic and cultural conditions of the context in which it interacts. According to the contributions of the aforementioned author, a theoretical approach can be developed to allow diverse elements that operate the indicators or characteristics that a teacher must have. In the same way, a profile helps teachers to maintain leadership competencies in relation to others, specifically with their students.

Another conceptualisation of the professional profile of the teacher consists in the set of competencies organised by units of aptitudes as defined by [22]. These competencies are necessary for the organisation of educational professional activity according to evaluation criteria and quality parameters [23]. According to this author, educators must possess a series of competencies that accredit their as having the capacity to fulfil their professional tasks according to the speciality of their profession.

In this perspective, [24] conceptualises the profile of the teacher as the organised and coherent set of highly desirable attributes and characteristics in a teacher. Attributes that are expressed in terms knowledge, skills, attitudes and values allow efficient performance according to creative and critical sense. These different functions that correspond to their academic condition are conceived as interdependent functions, committed to the fulfilment of the educational mission.

Competencies. According to [25], a professional profile comprises a set of behavioural patterns necessary to perform tasks and functions effectively, as well as the competencies underlying these patterns. These competencies are approached in terms of the integration of knowledge that a person possesses to perform fully in the area where they are developed. Conversely, [26] defines competencies as the mixture of motives, traits, knowledge, skills and aspects of self-image, as well as the forms of behaviour or thought generalised through situations that some people manage better than others. Here, competencies refer to the interaction and synergy of all the experiences of each individual in their field of work.

Competencies in the field of education can be achieved on the basis of the professional competencies of the pillars of education proposed by [27]. These competencies are: technical (cognitive knowledge), methodological (research), participatory (knowing how to be with others) and personal (ethical). Therefore, competencies are not innate potentialities of the human being, but rather form part of a permanent

construction on the part of a teacher, based on a clear intention to produce or carry out a specific task efficiently and effectively.

Meanwhile, the conceptualisation of competencies discussed in [28; 29] refers to a holistic concept of teaching in which the productive capacity of an individual (teacher) is defined and measured in an educational context in performance terms. Here performance includes not only knowledge, skills or abstract skills, but competition which integrates knowledge, know-how, knowing how to be and the ability to live with others.

Materials and Methods

This research was based on the qualitative paradigm as defined by [30] in terms of a study that is structured around the philosophical conception of qualities, that nourishes and provides the explicit details of what is real, thus determining the possibilities of knowing what happened. The researchers carried out the data collection in universities where the informants were carrying out their academic activities.

In accordance with the nature of qualitative research as recommended by [31; 32], semi-structured interviews were conducted in order to obtain relevant data from participants expressing their opinions about the topics raised in the investigation. Each of the participating teachers responded in an appropriate and measured way to the established questions, referring to the knowledge they had gained in accordance with their area of academic preparation. Once the required information had been obtained, the researchers proceeded to write their own interpretations based on the opinions expressed by the informants. The definitive time for the total development of the investigation was five months. The investigation began on October 1, 2018, until February 28, 2019.

Research informants. For the process of selecting the informants, the researchers applied the criteria recommended by [33; 34]; where instead of a rigid statistical process, the qualitative study approach is informed by the collection of data that emerges from interviews. An analysis was made of the best universities operating in the republic of Ecuador. In total, seven (7) universities were selected according to specific criteria: the most research and scientific publications, the number of students and teachers enrolled and the diversity of university career choices offered by the institution. The selected universities were: San Francisco de Quito University (USFQ), Pontificia Universidad Católica del Ecuador (PUCE), University of the Armed Forces (ESPE), Central University of Ecuador (UCE), University of the Americas (UDLA), University National University of Education (UNAE), National Polytechnic School (EPN).

After selecting the universities, one invitation letter was drawn up for each designated university in which the participation of two teachers was requested. These professors had to fulfil the following criteria: demonstrable experience in scientific research and possession of a master's degree or doctorate. It was also specified that the informative teacher would be interviewed for a period of time not exceeding 25 minutes.

Techniques and Instruments. The researchers applied a semi-structured interview to the informants (see Table) with the objective of collecting inescapable information that would respond to the objective of the research on educational competencies. For [35], this type of interview – that is to say the semi-structured model – is characterised by being simple, understandable and open, without relying

T a b l e. **Interview questions applied to research informants**

National University of Education (UNAE)	Data:
Informant:	Interview #:
Question	
What are the competencies required in higher education?	
Does university allow professional formation?	
Is the development of this research important?	

on preestablished categorisations. Based on this approach, the informants responded to the researchers' questions to the best of their abilities without being unduly influenced by the interview process (see Table).

The interviews were recorded in MP4 format (Moving Picture 4). For the transcription of the recordings, the researchers used the Dragon Natural Speaking system version 13. The texts were then coded to comply with the ethical standards of the research to avoid revealing personal information concerning the informants as recommended by [36; 37].

Consecutively, we proceeded to a complete analysis of the manifests obtained through the contrast or triangulation of the texts. A distinction was made between the texts obtained by the invited professors and the interpretative approaches taken by the researchers. In this way, a reflexive theoretical approach that responded to the proposed objective was established. This research method was recommended by [38] for performing theoretical reflection.

Results

From the testimonies given by the participants, different key terms emerged. For the interviewees, "adaptation" is generally seen in terms of competition imposed by the university. The informant (T.2) expressed "in my university they always want there to be a link with society", similarly to (T.5), "we have the ability to adapt to the changes in society".

Most of the stories presented by the informants consider that educational innovation consists in competition in responding to the needs of contemporary society. It is necessary that teachers be trained to train students in order to be able to respond to social demands. Thus, according to the competency of adaptation according to (T.12), "it is very important ... it is necessary to reflect on professional formation to modify our praxis"; in this way, according to the interviewee, educational reflection allows the speed of changes in the search for educational improvement to be increased. According to (T.14), "methodological innovation is presented ... this presupposes

a motivation for the teaching staff in the development of the research because it helps to overcome new challenges", which challenges are presented as "difficulties or problems". Likewise, according to the informant teacher (T.11) "Innovation must be an essential component… if we do not want to continue to develop master class lessons, where students feel out of the limelight of the environment". Motivation and creativity were seen as the primary axes of educational innovation, described by the informants in terms of avoiding falling into a routine.

From the narrated manifestos, it could be seen that educational innovation is related to professional formation that arises through the implementation of didactics. According to (T.1) "I had to update [my approach] for the students – now I use audio-visual material so that the learning is meaningful". Other significant aspects identified in the narratives of the teachers interviewed was the development of innovation competencies in the classroom. (T.3) said: "I learned to handle materials compensated by information and communication technologies". The acquisition of new methodologies was easily achieved for the informants through adaptation having a work motivation. According to (T.6), emotional competencies were presented when he stated "Sometimes I have a fear of asking, but I must go to my colleagues to advise me on new methods of professional formation so I can use innovation and research courses". In this way, the fear of being described as a teacher not up-to-speed in the use of digital instruments is expressed. For this reason, the interviewees felt under competitive pressure to update their competencies.

The informants expressed the opinion that there are significant knowledge competencies, noting that learning and formation are part of innovation in the classroom. Among the difficulties or problems posed is spontaneous learning. For (T.10), "the best way to update us is by designing workshops or continuing courses, but the university considers that we are all trained"; at the same time, according to (T.8), "interactive

whiteboard is an innovation, I had to learn spontaneously, because I was not trained professionally to use those resources. "For informants, the need to establish or define competencies is paramount in university education.

As a module of difficulty in the second question, a time factor arises, which manifests itself in (T.11), who expressed that "time ... passes very fast and does not allow a better formation, to put into practice what's in my area. "The same thing is presented by the informant (T.6), who stated: "I find myself in agreement with the professional formation, but the dedication of time to updating my skills reduces time spent with my family". According to the teaching staff, the time factor is important but limited. Teachers accept the need for professional improvement, with courses or diplomas but are not willing to allow their family time to be affected.

The second question exposed the limitations that arise as regards formative competency. For (T.4), "the university requires personnel with a doctorate degree, but by demanding the time of enrolment for the doctorate, they gave me the answer, that I did not have time". The participants expressed the need to carry out academic studies of professional improvement in terms of a requirement of the institution where they work. Conversely, for the informant (T.12), who affirmed "the university always obliges us to carry out research courses", and for the (T.13), which I underline "when we have vacations or weekends we convoke for methodology workshops, but our time is not respected." The informants highlighted constant invitations of the university to update their professional skills and competencies as an unpleasant factor.

According to the informants, the evaluative competency is established, as expressed by (T.1) as "Our university institute facilitates professionalisation; the problem lies in the lack of content". The lack of clarity is due to the aim not being stipulated from the beginning of the courses, which causes discomfort in the activities that are carried out. The discomfort of the necessary courses or not, is exposed by

(T.3), who expressed that "the last research workshop [...] was unnecessary because it was only a requirement of approval". According to the teaching staff, the training courses are implemented without having consulted with the teacher. The participation or consultation of the teacher is not promoted. No critical thought or opinion is allowed. The teachers cannot comment on their training or improvement needs, especially, in research.

For (T.14). "You can identify the needs and the type of competencies required by the university, but the obligation of the university to comply only as a curricular requirement is justified negatively". In the same way, for (I.10), "the department of human talent requires constant research or updating every semester; it does so in an authoritarian manner", which expresses the concern that the courses do not consider the context or the social reality in which university research is carried out, since it has a decisive influence on it. From the point of view of the teaching staff, their opinions are not considered in the design of the plans and study presentations.

For (T.13), "I believe that these opportunities offered by the research formation institution are ambiguous, because they are not detailed as a required competency… they are only interested in what the ministry of higher education requires." For teaching staff, there is little congruence between what is proposed and what the university authorities carry out. For teachers, their main interest is to safeguard the results of the evaluation applied by the authorities. Evaluations are described when (T.11) He stated that "I hope that this semester, [they] do not make drastic changes in the evaluation requirement, as per the previous time." The informant teachers highlighted that the evaluations can be improved, but the adaptation requires a new design of curricular orientation.

Other informants highlighted that (T.8) "when they design evaluations, there are changes in the platform, everything is modified and we have to assimilate new approaches", so that constant changes of the programmes are the result of implicit

evaluations by the university. Some informants affirmed that everything arises from incompetent policies. In this way, the evaluative competency in the Equatorial-Italian university education stands out.

Regarding the third question about the importance of research, a cause-effect relationship occurs between the research of the university teacher and the consecutive changes for educational innovation. This establishes an external mechanism that acts outside the competencies, which is due to traditional educational approaches and highlighting methodological competency in this way. Traditional teaching practices are highlighted for the informant (T.12), who states "despite having updated my resume, techniques and strategies, traditional techniques prevail in my university". According to this informant, traditional teaching methods are seen in academic terms.

While traditional universities propose academic models of didactic order, for (T.11), "the university described a practical formation curriculum, but in reality there were many information packages, nothing practical, only cognitive learning contents" in this way, the university has a great influence on the formation of a teacher, similarly to how, according to (T.2), "in the university where the undergraduate student studied, the research was not provided with depth." These attestations symbolise the absence of depth. The lack of an education-research system has a negative impact for university graduates, as shown by (T.1) "in the university when I study, they always gave me lessons, but the research activities were only theoretical." In this way, the new university professors must build their knowledge of the research profession as well as theoretical knowledge and directly habituate themselves to the university environment with the students.

On the other hand, the teaching and learning styles are improved thanks to the research according to (T.3), indicating that "doing excellent research can improve learning, change, strengthening and improving the teaching system." In the same way, the interviewee emphasises that significant learning must begin in the

students and an innovative reflection-action must be achieved, working as a team with colleagues to develop a common educational project.

Given these statements, according to (T.10) "the teacher not only continues to be trained cognitively, but also must reflect on the importance of research." In this way, a reflexive competency is presented, demonstrating the need for a reflective teacher. An ideal teacher is one whose research formation is developed within the framework of his work. Regarding research work, (I.6) states that "teacher formation is a field of knowledge and research focused on the study of the processes by which teachers learn and develop their professional skills for the formation of other subjects". For this, according to the informant, teacher formation is fundamental, through a model focused on the immediate context of work, where they are trained to analyse the educational system and develop their practice as innovation work.

In the aspect of university education, participants expressed fear of changes. According to (T.14) he indicated "I perceive that recently qualified and established professors are always breaking for the execution of the research; it would be cordial that everyone can exchange ideas or strategies." Thus, the informants expressed a need for a reflective process.

Regarding the testimonies of the informants on the importance of the investigation, for (T. 3), "the application of the investigation is necessary, but the coordination of the research requests analysis projects ... do not collaborate with their methodological design strategies, they have material and they do not cooperate". From this point of view, an organisational change in the distribution of educational research models that facilitate the research of the teaching staff is necessary. These actions should be supported by a reflection on the daily work of the teaching staff, since the lack of research models is a weakness expressed by the informants.

The study projects requested by the university coordinators according to point (T.5), "require a technical-methodological

nature". From the diversity of components that make up the research models, the research of the Ecuadorian teaching staff are based on fundamentals associated with systems theory. According to (T.13) "when developing a research project, I'm always asked to make improvements, look for a problem and find a solution, but I'm never told what to do." This is established from a logical and pragmatic point of view, in which many university professors expressed their resistance to becoming academically proficient, because many professors think they have absolute knowledge, especially in the field of research.

In order to promote or generate research, according to (T.9), it is emphasised that "my university colleagues do not want to do a PhD, for fear of creating a doctoral thesis." From a critical point of view, emotional competencies are highlighted, in which intellectual understanding and promotion by the universities is needed. In the same way (T.4) said, "I can professionalise, even if it is very expensive, perform all semesters, everything except the thesis", if a hidden fear of developing or carrying out a research project, degree work or thesis doctoral, this would hinder the objectives of the higher education system.

Discussion and Conclusion

The purpose of the research was to carry out a theoretical-critical analysis from the different contexts that make up the educational competencies of the Ecuadorian university teaching staff with the theoretical support of different researchers who support complex educational thinking as a fundamental educational role model. This model makes it possible to mobilise thought, generate reflexive actions and create spaces for multicultural and pluralistic convergence.

The formation of teacher research becomes much timelier when the teachers reflect on the level of their present skills and competencies [16; 24]. In the same way, it is necessary to develop research as a theoretical construct that is subject to formation and innovation; however, this underlies several theories that are of practical domain, according to Contreras, [18; 29]. The aforementioned theoretical contribution with the participation of 14 key informants, allowed competencies that respond to the objective of the investigation to be detected.

In the first place, it is considered by teachers that innovation competencies need to be constantly updated in order to adapt to changes in society [32]. Likewise, the participants affirmed that new technologies present a great opportunity for professional improvement. The stories extracted from the participants show evaluative competencies are seen in terms of a requirement to be met. All these competencies can be developed through courses offered by the university administration. On the other hand, other informants prefer to acquire academic and professional skills through self-learning strategies.

After analysing the textual testimonies that constitute the adaptive competency, it was possible to determine that university and curricular evaluations are not disseminated from a methodological or in-depth advisory or participative research view. In this way, the teacher must adapt to the needs demanded by the universities. At the same time, the university models focus on traditional formation, based on abstract paradigms where the educational research model is not considered.

Finally, according to the results presented by the informants, the existence of barriers that prevent educational research was revealed that. As also attested by the informants of [27], there must be an effective mediation with the different educational agents that allows the development of effective competencies corresponding to the important social work that takes place in the universities. For this, in order to get closer to a real knowledge of the investigative task it is essential that universities introduce a process of critical reflection at a general level. In this connection, it is essential that the professionalisation of the teaching staff form part of the investigation.

University professors must be concerned not only with formation future professionals in academic content and

curricula, but they must also invest in efforts to achieve highly complex graduation profiles, including the development of procedures, higher critical thinking skills and attitudes. This makes university teaching an extremely challenging activity, since it not only implies the transfer of knowledge, but also implies a high level of responsibility.

A research professor must plan and make important decisions, such as what content to take, what strategies to use in teaching, how to evaluate learning and how to deal with students. These decisions will have a strong impact on the quality of teaching in higher education institutions, as shown in the introductory section of this article.

From the theoretical consensus derived from the literature review, it can be seen that for researchers there are several approaches that suggest that each institution of higher education must select the competency that best suits its educational model and that is useful to select, train and evaluate the performance of its teachers, considering a minimum of required competencies.

Higher education is diverse, including various aspects related to the formation activity and the development of competencies. Higher education institutions vary widely within each country in terms of size, costs, course offerings, procedures, tradition, governance and quality. Currently, educational systems are struggling to articulate their efforts in favour of diversity and access, aiming at affordability and quality.

Based on the theoretical analyses carried out by the researchers, the following conclusions can be drawn:

1) Three competencies are promoted for the Ecuadorian university system: basic, specific and transversal. This is consistent with the fact that it is the teachers who are stressed in their self-evaluation.

2) Among the basic competencies, educational innovation and the applicability of technology as professional and academic resources stand out.

3) At the level of specific competencies, evaluative and knowledge competencies, considered as cognitive competencies, were presented.

4) Among the transversal competencies, adaptive, emotional and reflexive competencies were detected: these are competencies that allow to promote an adequate atmosphere in the classroom.

5) In the analysed texts, the authors of the present study considered the cognitive competencies as more relevant than investigative and formative methodologies.

Finally, it can be concluded that an improvement in the quality of teaching in higher education can be encouraged by contrasting the investigative-methodological competences with the formation competencies from the instructive approach taken by a university professor.

REFERENCES

1. Tünnermann B. La universidad ante los retos del siglo XXI. Universidad y Sociedad. México: Universidad Autónoma de Yucatán; 2003. Available at: https://www.enriquebolanos.org/media/archivo/2985-1.pdf (accessed 07.03.2019). (In Spanish)

2. Cuadra D., Castro P., Juliá M. Three Types of Knowledge in Competency Based Professional Education: The Integration of Subjective, Professional, and Scientific Theories. *Formación Universitaria*. 2018; 11(5):19-30. (In Spanish, abstract in Eng.) DOI: http://dx.doi.org/10.4067/S0718-50062018000500019

3. Skubic K., Živković N., Spasenović V. Theory, Practice and Competences in the Study of Pedagogy – Views of Ljubljana and Belgrade University Teachers. *CEPS Journal*. 2015; 5(2):35-55. Available at: https://files.eric.ed.gov/fulltext/EJ1128913.pdf (accessed 07.03.2019). (In Eng., abstract in Spanish)

4. Argüelles A., Gonczi A. Education and Training Based in Standards of Competence: A Reflection and Analysis. México. Editorial Limusa Noriega; 2001. (In Eng.)

5. Gardner H. Five Minds for the Future: An Educational Essay. Harvard: Harvard Business Review Press; 2006. (In Eng.)

6. Christophe A., Assamoi O. Core Competencies Development among Science and Technology (S&T) College Students and New Graduates. *American Journal of Educational Research*. 2015; 3(9):1077-1084. (In Eng.) DOI: http://dx.doi.org/10.12691/education-3-9-3

7. Tobón S. Formación Basada en Competencias. Bogotá. Ecoe Ediciones; 2014; Available at: https://www.uv.mx/psicologia/files/2015/07/Tobon-S.-Formacion-basada-en-competencias.pdf (accessed 07.03.2019). (In Spanish)

8. Barnés J., Perrenoud P. El debate sobre las competencias en la enseñanza universitaria. Barcelona: ICE Octaedro; 2008. Available at: http://www.ub.edu/ice/sites/default/files/docs/qdu/5cuaderno.pdf (accessed 07.03.2019). (In Spanish).

9. Dollinger M., Lodge J., Coates H. Co-creation in Higher Education: Towards a Conceptual Model. *Journal of Marketing for Higher Education*. 2018; 28(2):210-231. (In Eng.) DOI: http://dx.doi.org/10.1080/08841241.2018.1466756

10. Miron M., Segal E. "The Good University Teacher" as Perceived by the Students. *Higher Education*. 1978; 7(1):27-34. (In Eng.) DOI: https://doi.org/10.1007/BF00129788

11. Brusoni M., Radu D., Grifoll J., Jackson S., Kömürcügil H., Malmedy M., et al. The Concept of Excellence in Higher Education. Brussels: Zeynep Olcen; 2014. Available at: https://enqa.eu/indirme/papers-and-reports/occasional-papers/ENQA%20Excellence%20WG%20Report_The%20Concept%20of%20Excellence%20in%20Higher%20Education.pdf (accessed 07.03.2019). (In Eng.)

12. Pineda P. Gestión de la Formación en las Organizaciones. Barcelona: Ariel Educación; 2002. Available at: https://dialnet.unirioja.es/servlet/libro?codigo=4641 (accessed 07.03.2019). (In Spanish).

13. McClelland D., Atkinson J., Russell A., Lowell E. The Achievement Motive. East Norwalk, Conn: Appleton-Century-Crofts; 1953. Available at: https://www.apa.org/pubs/books/4320365?tab=2 (accessed 07.03.2019). (In Eng.)

14. Mertens L. Competencia Laboral: Sistema, Surgimiento y Modelos. Montevideo: Cinterfor; 1996. Available at: https://www.oei.es/historico/etp/competencia_laboral_sistemas_modelos_mertens.pdf (accessed 07.03.2019). (In Spanish).

15. Tasopoulou K., Tsiotras G. Benchmarking Towards Excellence in Higher Education. *Benchmarking: An International Journal*. 2017; 24(3):617-634. (In Eng.) DOI: https://doi.org/10.1108/BIJ-03-2016-0036

16. Spencer L., McClelland D., Spencer M. Competency Assessment Methods; History and State of the Art. Boston: Hay-McBer Research Press; 1994. Available at: https://catalog.hathitrust.org/Record/009925999 (accessed 07.03.2019). (In Eng.)

17. Loewenberg Ball D., Forzani F.M. The Work of Teaching and the Challenge for Teacher Education. *Journal of Teacher Education*. 2009; 60(5):497-511. (In Eng.) DOI: https://doi.org/10.1177/0022487109348479

18. Snellman C. University in Knowledge Society: Role and Challenges. *Journal of System and Management Sciences*. 2015; 5(4):84-113. Availabe at: http://www.aasmr.org/jsms/Vol5/No.4/JSMS-VOL5-NO4-5.pdf (accessed 07.03.2019). (In Eng.)

19. Gibbs G. Developing Students as Learners – Varied Phenomena, Varied Contexts and a Developmental Trajectory for the Whole Endeavour [Electronic resource]. *Journal of Learning Development in Higher Education*. 2009; (1). Available at: http://www.uh.cu/static/documents/STA/Developing%20students%20as%20learners.pdf (accessed 07.03.2019). (In Eng.)

20. Herron J., Garland E. A Nimble Organization and a Flexible Degree Program: A Term-Based Competency-Based Education Case Study. *The Journal of Competency-Based Education*. 2019; 4(2):e01184. (In Eng.) DOI: https://doi.org/10.1002/cbe2.1184

21. Zhunissovna A. The Role of Higher Education System in Human Capital Formation. *World Applied Sciences Journal*. 2012; 18 (Special Issue of Economics):135-139. (In Eng.) DOI: https://doi.org/10.5829/idosi.wasj.2012.18.120022

22. Michael W., Roger D. The Importance of Student Effort and Relationships with Goals Orientations and Psychological Needs. *Academy of Educational Leadership Journal*. 2015; 19(1):15-30. Available at: https://www.abacademies.org/articles/aeljvol19no12015.pdf (accessed 07.03.2019). (In Eng.)

23. Sierra Villamil G. Educational Leadership in the 21st Century from the Perspective of Sustainable Entrepreneurship. *Revista Escuela De Administración De Negocios*. 2016; (81):111-128. (In Spanish, abstract in Eng.) DOI: https://doi.org/10.21158/01208160.n81.2016.1562

24. Ferrández R., Sánchez L. Teaching Competences in Secondary Education. Analysis of Teachers' Profiles. *RELIEVE*. 2014; 20(1):1-20. (In Eng.) DOI: https://doi.org/10.7203/relieve.20.1.3786

25. Richmond G., Salazar M., Jones N. Assessment and the Future of Teacher Education. *Journal of Teacher Education*. 2019; 70(2):86-89. (In Eng.) DOI: https://doi.org/10.1177/0022487118824331

26. Harris A. Distributed Leadership: Implications for the Role of the Principal. *Journal of Management Development*. 2012; 31(1):7-17. (In Eng.) DOI: https://doi.org/10.1108/02621711211190961

27. Spillane J.P., Healey K. Conceptualizing School Leadership and Management from a Distributed Perspective: An Exploration of Some Study Operations and Measures. *The Elementary School Journal*. 2010; 111(2):253-281. (In Eng.) DOI: https://doi.org/10.1086/656300

28. Robinson V., Hohepa M., Lloyd C. School Leadership and Student Outcomes: Identifying What Works and Why: Best Evidence Synthesis Iteration (BES). Wellington, New Zeland: Ministry of Education; 2009. Available at: https://www.educationcounts.govt.nz/__data/assets/pdf_file/0015/60180/BES-Leadership-Web-updated-foreword-2015.pdf (accessed 07.03.2019). (In Eng.)

29. Misra Bakhru K. Personal Competencies for Effective Teaching: A Review Based Study. *Educational Quest: An Int. J. of Education and Applied Social Science*. 2017; 8:297-303. (In Eng.) DOI: https://doi.org/10.5958/2230-7311.2017.00067.8

30. Pita Fernández S., Pértegas Díaz S. Investigación cuantitativa y cualitativa. *Cad Aten Primaria*. 2002; 9:76-78. Available at: https://www.fisterra.com/mbe/investiga/cuanti_cuali/cuanti_cuali2.pdf (accessed 07.03.2019). (In Spanish).

31. Uddin J. Documentary Research Method: New Dimensions. *Indus Journal of Management & Social Science (IJMSS)*. 2010; 4(1):1-14. Available at: https://ideas.repec.org/a/iih/journl/v4y2010i1p1-14.html (accessed 07.03.2019). (In Eng.)

32. Cano E. Cómo mejorar las competencias de los docentes. Guía para la autoevaluación y el desarrollo de las competencias del profesorado. Graó, Barcelona; 2005. Available at: https://books.google.com.ec/books?id=HP7oCJch5k4C&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false (accessed 07.03.2019). (In Spanish)

33. Cúnico S., Pizzinato A., Strey M., Mans A. Desafíos y posibilidades de la investigación cualitativa en Psicología: problematizaciones necesarias. *Psicología, Conocimiento y Sociedad*. 2018; 8(1):194-217. Available at: http://www.scielo.edu.uy/pdf/pcs/v8n1/1688-7026-pcs-8-01-167.pdf (accessed 07.03.2019). (In Spanish, abstract in Eng.)

34. Henwood K., Dicks B., Housley W. QR in Reflexive Mode: The Participatory Turn and Interpretive Social Science. *Qualitative Research*. 2019; 19(3):241-246. (In Eng.) DOI: https://doi.org/10.1177/1468794119844103

35. Schubert C., Röhl T. Ethnography and Organisations: Materiality and Change as Methodological Challenges. *Qualitative Research*. 2019; 19(2):164-181. (In Eng.) DOI: https://doi.org/10.1177/1468794117744748

36. Ziskin M.B. Critical Discourse Analysis and Critical Qualitative Inquiry: Data Analysis Strategies for Enhanced Understanding of Inference and Meaning. *International Journal of Qualitative Studies in Education*. 2019; 32(6):606-631. (In Eng.) DOI: https://doi.org/10.1080/09518398.2019.1609118

37. Goldstein E. A Qualitative Synthesis of the Effects of Rising Cost-Sharing Requirements in the United States [Electronic resource]. *Forum: Qualitative Social Research*. 2019; 20(2). (In Eng.) DOI: http://dx.doi.org/10.17169/fqs-20.2.3082

38. Schmidt R., Wiesse B. Online Participant Videos: A New Type of Data for Interpretative Social Research? [Electronic resource]. *Forum: Qualitative Social Research*. 2019; 20(2). (In Eng.) DOI: http://dx.doi.org/10.17169/fqs-20.2.3187

About the authors:

Magda Francisca Cejas Martínez, Research Professor of Company Social Sciences and Economics, Researcher of National University of Chimborazo (UNACH) / Universidad Nacional de Chimborazo UNACH (89 Avenue Antonio José de Sucre, Riobamba 060150, Ecuador), Ph. D., **ORCID: https://orcid.org/0000-0002-0618-3608**, **Researcher ID: G-8211-2019**, mfcejas@espe.edu.ec

Derling Jose Mendoza Velazco, Research Professor of National University of Education (UNAE) / Universidad Nacional de Educación UNAE (54 Chuquipata St., Azogues 030154, El Cañar, Ecuador), Doctor in Education, **ORCID: https://orcid.org/0000-0001-8275-3687**, **Scopus ID: 57205188813**, **Researcher ID: N-1162-2018**, derling.mendoza@unae.edu.ec

Mercedes Navarro Cejas, Research Professor of Regional Authonomous University of the Andes (UNIANDES) / Universidad Regional Autónoma de los Andes UNIANDES (284 Avenue E30, Quevedo, Riobamba 060150, Ecuador), **ORCID: https://orcid.org/0000-0003-4377-7250**, **Researcher ID: G-8196-2019**, ur.mercedesnavarro@uniandes.edu.ec

José Lenin Rogel Villacis, Research Professor of Central University of Ecuador (UCE) / Universidad Central del Ecuador UCE (P12 Avenue Baltra, Campus miraflores, Santa cruz Island, Galápagos 170526, Ecuador), Magister, **ORCID: https://orcid.org/0000-0002-6897-3808**, jrogel@uce.edu.ec

Yanet Marisol Ortega Freire, Research Professor of University of the Armed Forces (ESPE) / Universidad de las Fuerzas Armadas ESPE (39 St. Manuel de Jesús Quijano y Ordoñes, Latacunga 050150, Ecuador), Magister in tourist destinations, **ORCID: https://orcid.org/0000-0002-5731-7418**, ymortega@espe.edu.ec

Contribution of the authors:

Magda Francisca Cejas Martínez – critical supervision; planning and supervision of work; writing the main conclusions; analysis of educational theories; critical reading of theoretical substantiations.

Derling Jose Mendoza Velazco – reading supervision; scientific management; drafting of theoretical discussions of higher education; review of bibliographic citations and web links.

Mercedes Navarro Cejas – writing and revision of English literature; revision of educational theories; development of the methodology.

José Lenin Rogel Villacis – documentary analysis and writing; preparation of the initial version of the text; educational competencies research.

Yanet Marisol Ortega Freire – research of educational models; contrast of theories; study conception.

All authors have read and approved the final manuscript.

Об авторах:

Сехас Мартинес Магда Франсиска, преподаватель-исследователь Общества социальных наук и экономики, исследователь Национального университета Чимборасо (UNACH) (060150, Эквадор, г. Риобамба, Авеню Антонио Хосе де Сукре, д. 89), доктор философии, **ORCID: https://orcid.org/0000-0002-0618-3608**, **Researcher ID: G-8211-2019**, mfcejas@espe.edu.ec

Мендоса Веласко Дерлинг Хосе, преподаватель-исследователь Национального университета образования (UNAE) (030154, Эквадор, Эль-Каньяр, г. Асогес, ул. Чукипата, д. 54), доктор педагогики, **ORCID: https://orcid.org/0000-0001-8275-3687**, **Scopus ID: 57205188813**, **Researcher ID: N-1162-2018**, derling.mendoza@unae.edu.ec

Наварро Сехас Мерседес, преподаватель-исследователь Регионального автономного университета Анд (UNIANDES) (060150, Эквадор, г. Риобамба, Кеведо, Авеню Е30, д. 284), доктор философии (право, экономика и предпринимательство), **ORCID: https://orcid.org/0000-0003-4377-7250**, **Researcher ID: G-8196-2019**, ur.mercedesnavarro@uniandes.edu.ec

Рогель Вильясис Хосе Ленин, преподаватель-исследователь Центрального университета Эквадора (UCE) (170526, Эквадор, Галапагосские о-ва, о. Санта-Крус, Кампус Мирафлорес, Авеню Бальтра, Р12), магистр, **ORCID: https://orcid.org/0000-0002-6897-3808**, jrogel@uce.edu.ec

Ортега Фрейре Янет Марисоль, преподаватель-исследователь Университета вооруженных сил (ESPE) (050150, Эквадор, г. Латакунга, ул. Мануэля де Хесуса Кихано-и-Ордоньеса, д. 39), магистр (туризм), **ORCID: https://orcid.org/0000-0002-5731-7418**, ymortega@espe.edu.ec

Заявленный вклад авторов:

Сехас Мартинес Магда Франсиска – планирование и руководство работой; подготовка основных выводов; анализ теорий образования; критическое прочтение теоретического обоснования.

Мендоса Веласко Дерлинг Хосе – научное руководство; разработка теоретических основ высшего образования; обзор библиографии и ссылок на веб-сайты.

Наварро Сехас Мерседес – написание текста и обзор англоязычной литературы; обзор образовательных теорий; разработка методологии.

Рогель Вильясис Хосе Ленин – анализ документов и литературы; подготовка исходного варианта текста; исследование образовательных компетенций.

Ортега Фрейре Янет Марисоль – исследование образовательных моделей; сопоставление теорий; концепция исследования.

Все авторы прочитали и одобрили окончательный вариант рукописи.