



AN OVERVIEW OF COMPREHENSIVE TRAINING IN HIGHER EDUCATION BETWEEN 2015-2021

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SUMMARY

Today's society has faced unexpected situations as a result of unforeseen events such as the COVID-19 pandemic, which brought about one of the transitions never thought of, all academic and administrative procedures that were carried out in person, changed to make them through the benefits of technologies and education was no stranger to this situation and lived this change from a classroom education to a teaching model mediated by technology and currently to a model based on hybrid education; that is to say, it is possible to combine face-to-face and technology. Undoubtedly, this affected all social sectors, one of them higher education, in which it became necessary to establish a research whose general objective was framed in: to reflect on some theoretical-epistemological arguments linked to comprehensive training in higher education between 2015 - 2021, with the intention of having an approach to the contributions given for a quality education for and social benefit. The methodology used is framed in a qualitative research, through a documentary method supported by the technique of content analysis, which led to a systematic review of conceptual and theoretical elements that converge in revealing a cumulus of aspects that define and surround the integral formation in higher education in recent years. The review resulted in the management of bibliometric studies in search engines such as Scopus, Web of Science and Google Scholar. This allows us to conclude that multiple researches have been carried out, some of them with a very high level of scientific rigor that seek to rethink the pedagogical action in order to adjust it to the demands of society in general that demand changes for a new teaching model.

Key words: integral formation, higher education, teaching and learning process.

1. INTRODUCTION

Education has become an issue that at different times in history and today remains a concern of society; every day that passes changes and transformations marked by digital technologies arise and it is observed how the face-to-face teaching classrooms have been changing by virtual classrooms hosted in easily accessible technology platforms that invites students, teachers, parents, representatives and guardians to be attentive when some bibliographic material



is uploaded to guide the teaching and learning processes. This is a reality that is no secret for anyone, and perhaps even less so for the students of the University, since there converges the diversity of thought and from the university campus technologies have been implemented with the intention of approaching everything that happens with the information society. For that reason it is pertinent to be clear that the research emerges in function of a systematic review of the biographical databases that become fundamental sources for the development of a theoretical constrastation that reaches the proposed objective: to reflect on some theoretical-epistemological arguments linked to the integral formation in higher education between 2015 - 2021.

Indeed, when referring to the integral formation in the University it is necessary to point out that; FajardoPascagaza; Hernández Barriga, (2022), states: "Integral formation tends to liberating learning that inculcates in students attitudes of responsibility and critical, ethical and creative thinking with implications of effectiveness, efficiency and efficacy with the external world". (p. 4). Theoretical positioning that shows that the scope of the integral formation in the university covers a diversity of concepts that come together in relation to give an accompaniment to students so that they reach a training according to their aspirations, which leads to a review of the training processes with the intention of assuming changes to improve and thus ensure professionals who contribute to the progress, development and social welfare of humanity, with the firm intention of making the epochal moment a moment for change that leaves significant traces in society.

University education has been characterized for being the pioneer in all actions taken by nations in search of socio-educational and productive development, which without fear of error is what signifies the society of knowledge from universities emanate knowledge and experiences of greater relevance, with the intention that professionals who graduate are responsible for guiding and guiding the paths of society, remembering that today there are thousands of elements that surround the comprehensive training of professionals and for which it is relevant to be in constant review and updating of knowledge to contribute with new perspectives that lead to boost the productive apparatus of each country, thus, where the comprehensive training in higher education is present with the intention of achieving products that contribute to the quality of processes in society.

Reasons, which give rise to conduct an exhaustive review on the subject in question; from a documentary method supported by the technique of content analysis, which converges in the use of search engines Scopus, Web of Science and Google Scholar, with the intention of approaching the object of study and thus achieve establish a theoretical contrast that allows to understand, understand and reflect on the role of comprehensive training in higher education. From this position, the theoretical bases emanating from the searches carried out are established, where each of the metrics found in the development of the documentary research is presented, which is complemented with the content analysis.

Finally, the structure of this theoretical contribution is defined by a brief introduction, then the epistemic foundations of integral formation in higher education are established from a documentary analysis, then the methodological coupling used is shown, followed by the results found and the respective discussion, thus generating a body of conclusions that allow to establish an approach to the existing reality on the object of study and then the references used are shown with the intention of achieving a theoretical overview of what is the integral formation in university education and the contributions given by various authors according to the corresponding topic.

2. EPISTEMIC FOUNDATIONS OF COMPREHENSIVE EDUCATION IN HIGHER EDUCATION

The epistemic foundations are worked on two premises, namely integral formation and higher education; understanding that they go hand in hand and must be clarified with the intention of having a clear vision in the results and their discussion after having developed the



methodological coupling; In fact, these elements constitute the basis of the theoretical elements that converge in the object of study that is being analyzed, for this reason it is convenient to keep in mind that by deconstructing each of the premises, new theoretical positions are achieved in terms of how they should be correlated with what society demands today, a world marked by technology and permeated by the information society where it is relevant to achieve a flexible, broad and holistic conception that allows the comprehensive training of university professionals with a profile of high value to society in every way.

2.1 Integral Formation:

Comprehensive training is derived from processes immersed in the educational system, where didactics, pedagogy and andragogy are combined to ensure that students achieve their comprehensive training; in fact, Ortiz Blanco, (2015) points out that: "In it, learning the professions involves not only the acquisition of specific knowledge and appropriate techniques for professional practice, but also internalization of values, attitudes and forms of behavior that contribute to the student's participation in the transformation and improvement of social conditions (p. 91). From this position, it is assumed that the integral formation must be assumed as a process of marked relevance in what is the teaching and learning part, taking into account that there are several aspects in relation to what today's society demands.

The integral formation converges in a cumulus of complex processes that unveil how university professionals are formed, taking into account that there the basic conceptions and the general components of the professionals are handled, this is how theoretical dispositions are assumed; as well as it is stated by De Luca, (2017) who indicates:

The formation of every professional involves not only the knowledge acquired in the classroom, through the reading of contents and the development of projects. Professional maturity is the metamorphosis from individual to social subject; when knowledge, intelligence and praxis are aligned to transcend in society, that is, an integral formation. Integral training is based on the idea of developing, in a balanced and harmonious way, various dimensions of the subject, which lead him/her to become human, intellectual, social and professional (p. 911).

It is evident that comprehensive training is one of the functions of the university that bets on important and significant changes in society; thus, actions framed in didactics are carried out with the intention of achieving quality comprehensive training, which bets on progress, development and social welfare, which allows aiming at significant changes that in general terms will generate transformations in terms of university professionals.

2.2 HIGHER EDUCATION:

In higher education it is pertinent to reflect on the proposals of UNESCO (2022) in the World Conference on Higher Education 2022 (WHEC2022) held in Barcelona (2022) whose motto was: "reformulating ideas and practices in higher education to ensure sustainable development of the planet and humanity". (s/p). From this motto it is relevant to take into account that higher education is undoubtedly called to solve countless problems; in fact, society expects the university to establish the foundations for development, progress and social welfare, which brings with it the need to have an overview of the importance of higher education for humanity in general; because it is there that knowledge is produced and experience is achieved, which professionals must acquire in their various areas of education and training, establishing their role as professionals to promote society to new challenges.

Challenges that must be assumed through higher education in search of a better way to help the planet and therefore the safeguarding of humanity; since it is the university that is called to generate changes from approaches based on scientific studies that support a new path to follow with the intention of constituting new ways of educating in relation to a resignification of higher



education adjusted to the current social demands. Seeking to form, train and educate professionals who can provide society with relevant and significant changes for the benefit of humanity. As assured by Rubio Gaviria and Lockmann, (2018), who states that:

The university faces the challenge of giving meaning to its work in the context of a modern society that is transformed daily as a result of the incorporation of information technologies. This means to walk cautiously along the path of innovation; it is not the same to generate innovative processes in the classroom as to resort to desperate strategies that try to close the communication gap in the school itself (educational community). It is not a matter of bringing everyday life to the higher education space, in order to promote a familiar or popular environment among educational actors (p. 48).

Therefore, higher education is called to become the ally of technologies in order to establish an alliance that brings knowledge in an effective way to students and, in addition to this, it is possible to establish the basis for universities to promote studies and research that at all times are linked to what society requires to be in tune with the change and transformations that technology brings and applies in different contexts, which leads to rethink the action and social work of higher education. Thus, it is necessary to rethink the role of the university with the intention of helping to establish actions for progress, development and social welfare.

3. METHODOLOGICAL COUPLING

Regarding the methodological coupling part, it is pertinent to point out that we work with qualitative research, taking into account that Loayza-Maturrano, (2020) states: "Qualitative research focuses on the understanding of phenomena and can focus on meanings, perceptions, concepts, thoughts, experiences or feelings. Qualitative research examines how or why a phenomenon occurs." (p.57). This supports the methodological route defined in this research, taking into account that in this case the documentary method is used with the intention of making a bibliometric analysis and therefore a reflection on the topic that has been raised, for that reason the content analysis is used, which allows interpreting what has been produced with respect to the topic of this research; to this the technique of content analysis is added, assuming the information collected through the search engines Scopus, Web of Science and Google Scholar.

It is significant to mention that the approach to comprehensive training in higher education is a topic that has been analyzed in multiple contexts, which led to create the theoretical basis of this study where some referential elements that help to understand and understand the contributions made by research in relation to comprehensive training and higher education between 2015 and 2021 are characterized, which shows a theoretical journey on the diversity that emerges from what is comprehensive training and higher education, that without fear of error at all times points to development, progress and social welfare, providing knowledge and experiences to establish improvements where necessary.

4. RESULTS AND DISCUSSION

The way to show the results of the documentary research that has been proposed is to reiterate that we continue working with two fundamental premises that are defined as comprehensive training and higher education that allows channeling actions that help to understand and understand the academic processes, which is why it is assumed in the first place the use of the software publish or perish which is the one that will indicate between the range of 2015 and 2021 the document that has the highest citation, using the categories already described, which converges in the first instance to determine the "H" index that refers to a measurement of the quality of the products written by scientists, where the number of citations made on that scientific product is established and it is found that in the chosen range of 2015 - 2021 the number one ranking is for the product of: Ganga Contreras; PedrajaRejas; Quiroz Castillo Y Rodríguez Ponce, (2017), entitled: Organizational Isomorphism (IO): brief theoretical approaches and some

applications to higher education. With an index of 3.80 per year reflecting 19 citations; mentioned work according to the authors became an obligatory reference for those who work on integral formation and higher education assuming that the work was carried out in Chile and becomes a significant contribution that brings with it the analysis of higher education in terms of organizational isomorphism.

Now, knowing the citation ranking it is appropriate to work each of the search engines such as Scopus, Web of Science and Google Scholar with the intention of having an approach to the object of study; that is why we start with Scopus assuming the premises raised: comprehensive training and higher education bearing in mind that between 2015 and 2021 a production of 1619 documents was achieved, taking into account that they are distributed by year as follows:

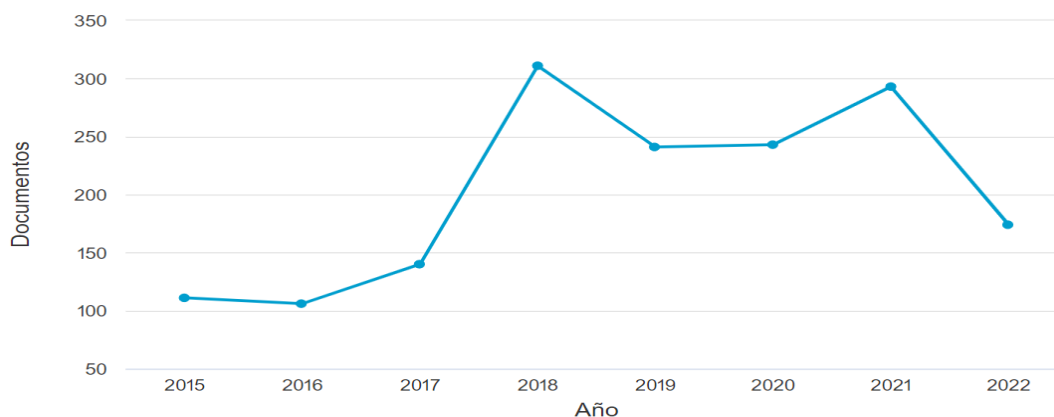
Table 1. Documents produced by year

Year	Documents
2022	174
2021	293
2020	243
2019	241
2018	311
2017	140
2016	106
2015	111

Source: Author's compilation, Scopus, 2022.

The table described above shows that the year with the highest production is recorded in 2018 with 311 indexed published documents; followed by the year 2021 with 293 documents, followed by the year 2020 which records an accumulation of 243 documents; it is necessary to indicate that the production of scientific documents in the last years is high, which leads to infer that the premises integral formation and higher education represent that there is rigor in the production and publication of the topics that enclose both premises, undoubtedly that corroborates a conglomerate of data that represents the production given in the last six years; It is clear that there is a striking indicator that emerges in the year 2022, that so far this year there has been a production of 174 documents; this shows that it may be difficult to take the first place away from 2018, that is to say, it is possible to maintain the same as the year with the highest production. It should also be noted that the information described above can be seen in this figure, where the records are shown graphically:

Figure 1. Documents produced per year



Source: Author's compilation, Scopus, 2022.

Figure 1 shows what is described in Table 1, since the information collected is presented graphically, thus making the distribution of scientific documents produced per year more visible. Table 2 is shown below, which indicates:

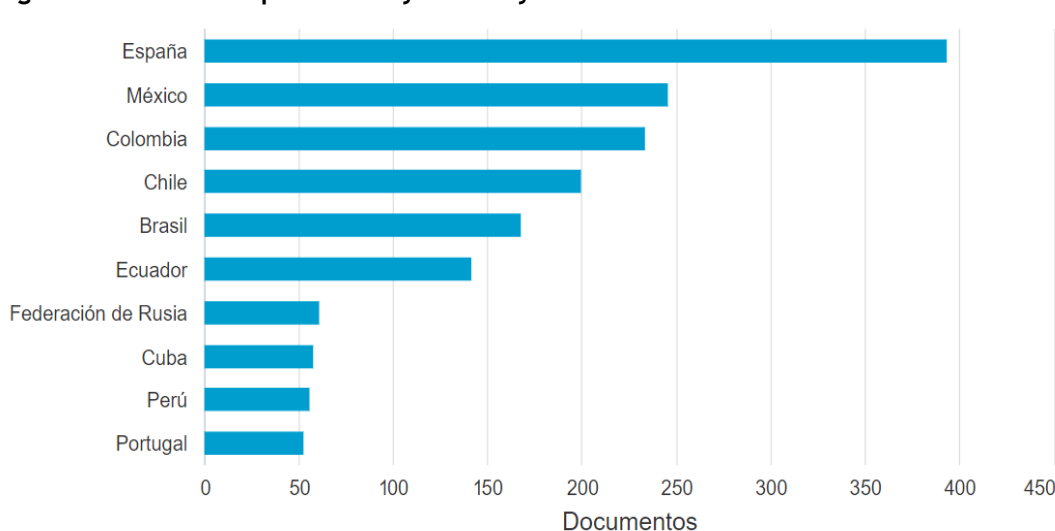
Table 2. Documents produced by territory

Country	Documents
Spain	393
Mexico	245
Colombia	233
Chile	199
Brazil	167
Ecuador	141
Russian Federation	60
Cuba	57
Peru	55
Portugal	52
United States	52
Argentina	40
United Kingdom	18

Source: Author's compilation, Scopus, 2022.

Table 2, referring to documents produced by territory, shows Spain with 393 documents, followed by Mexico with 245, Colombia in third place with 233 documents, Chile with 199, Brazil with 167 documents, Ecuador with 141 and the Russian Federation with 60 documents, indicating that there is interest in any part of the world in the analyzed premises of integral formation and higher education. After analyzing this information, it is important to reiterate that Colombia, with a third place, has a good level of scientific production.

Figure 2. Documents produced by territory



Source: Author's compilation, Scopus, 2022.

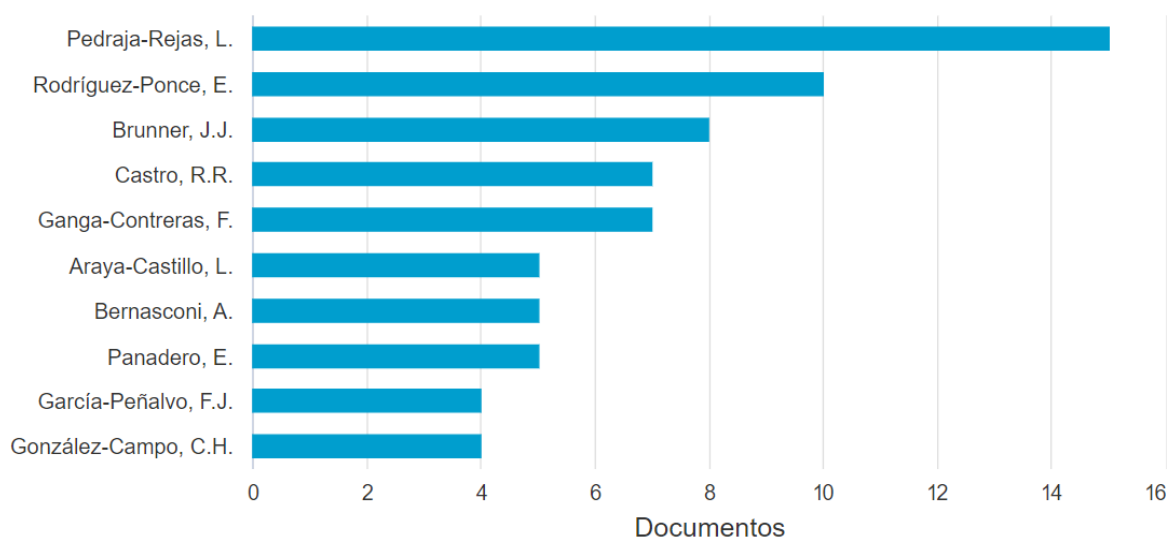
Next, the production of documents referred to the part of the authors and it is there where it is possible to corroborate the article and the author with the highest ranking between the years 2015 and 2021, in fact, this allows to support the level of production and the following is presented:

Table 3. Documents by author

Authors	Documents
Pedraja Rejas, L	15
Rodríguez Ponce, E	10
Brunner, J J	8
Castro, R R	7
Ganga Contreras, F	7
Arya Castillo, L	5
Bernasconi, A	5
Baker, E	5
García Peñalvo, F J	4
Gonzales Campo C H	4

Source: Author's compilation, Scopus, 2022.

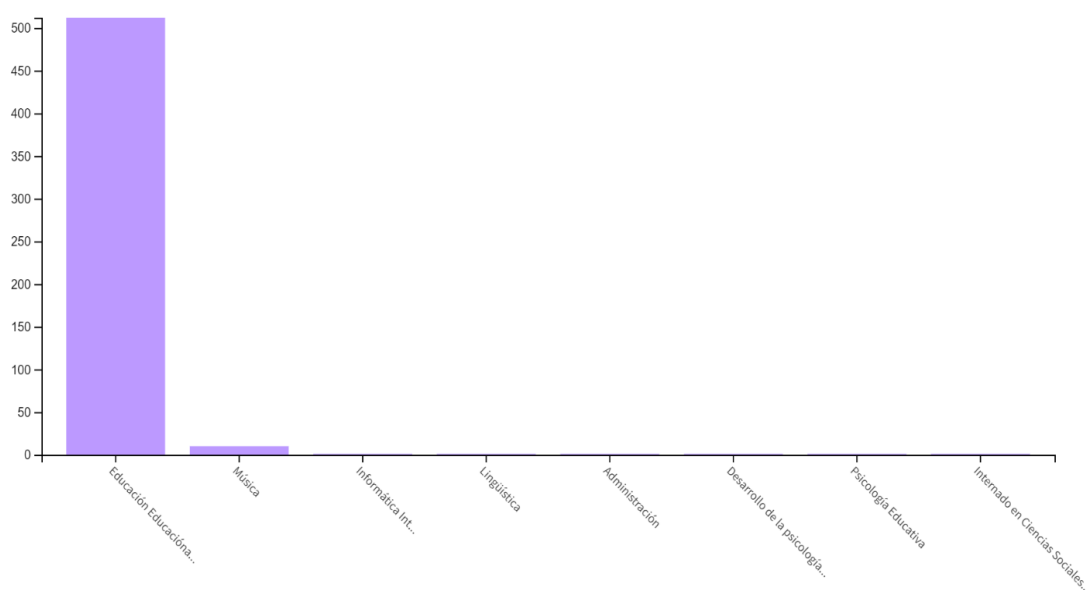
Table 3 shows that the author PedrajaRejas, L has a production of 15 indexed and published documents, followed by Rodríguez Ponce, E who has about 10; then comes Brunner, J J with a production of 8 documents and in fourth place is Castro, R R with 7 published documents.

Figure 3. Documents by author

Source: Author's compilation, Scopus, 2022.

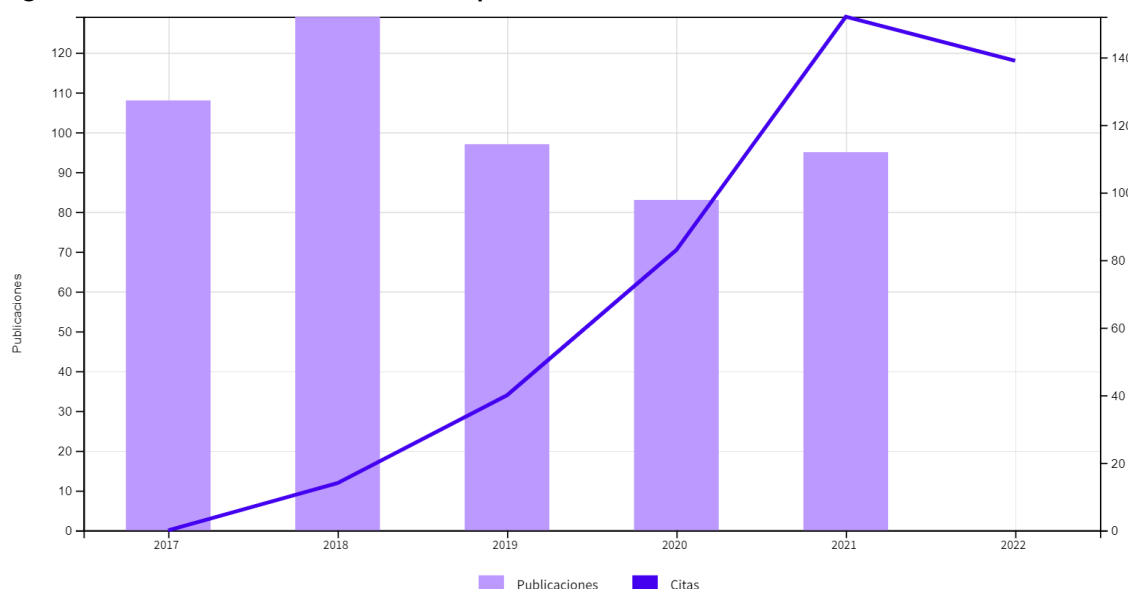
The information shown in Figure 3 indicates that the production of documents per author is quite high and it is inferred that it is of quality, since the author with the highest ranking is ratified by Scopus and this shows the level of scientific rigor in the treatment of the premises of comprehensive training and higher education. Now, it is significant to mention that a bibliometric study and a substance analysis is carried out from the Web of Science, which leads to the establishment of more contributions on the theories that are being analyzed, bringing with it aspects that can be included in the process of formation and training of university professionals.

Now, with regard to the Web of Science, it is necessary to indicate that a metric analysis is proposed between 2015 and 2021, which brought with it an accumulation of valuable information which yielded 4231 documents that when filtered by years between 2015 and 2021 emerge about 2327 documents, which when filtered assuming the area of knowledge were about 512 documents when analyzed.

Figure 4. Documents by area of expertise

Source: Author's compilation, Web OfSciencie, 2022.

As can be seen in the graph described above, it shows the number of documents that were treated according to the documentary analysis, now that leads to visualize that the largest production is in the social sciences and reflects about 512 documents, which are analyzed in terms of comprehensive training and higher education, which leads to rethink the various actions to be implemented to continue the production of scientific material that helps teachers to have in their hands tools for better academic performance, in fact, through these aspects it can be ensured that there are multiple studies on comprehensive training and higher education. Now these aspects can be revealed that:

Figure 5. Distribution of citations and publications.

Source: Author's compilation, Web OfSciencie, 2022.

In fact, the graph described above shows that when filtering between 2017 and 2021, it is consolidated that for the year 2017 there were 0 citations and 108 publications; followed by 2018 with 129 publications, while in 2019 there were 40 citations and 129 publications; in 2020 there was

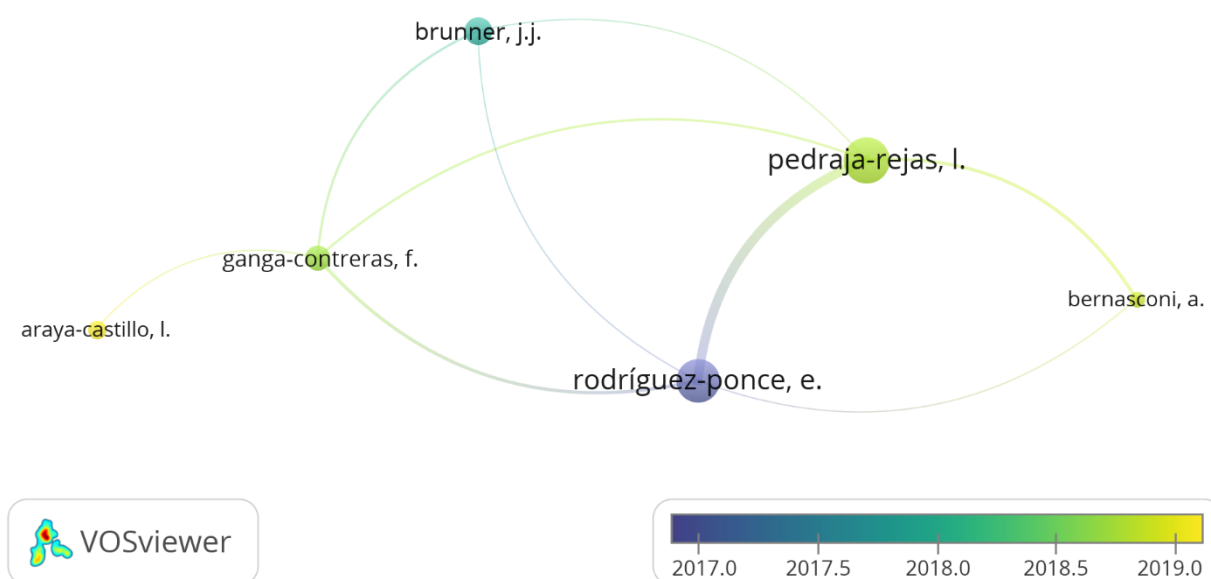
a tie of 83 citations and 83 publications; likewise, it is assumed that in 2021 there were 152 citations and 95 publications. These data show a statistical behavior in relation to the production of scientific documents related to comprehensive training and higher education.

Now, it is necessary to indicate that the mentioned data show that the greatest production of documents is found in the social sciences within the area of education, in fact, the mentioned aspects manage to concretize actions to implement an integral educational model that understands and comprehends the reality of the facts as the different elements that surround it, likewise, it is necessary to indicate that the theoretical contributions converge in a new way of understanding and comprehending everything that surrounds the future university professionals.

With respect to Google scholar, it was observed that when filtering between 2015 and 2021, approximately 14.30 documents are presented, taking into account that the statistics obtained show that the highest citation is found in documents referring to comprehensive training and higher education, specifically linked to publications on nature, where an H5 is evidenced with 444 publications. However, these metrics show that the contributions found in Google Scholar are highly significant in the production of scientific documents; likewise, it is possible to visualize that in the H5 referred to The New England Journal of Medicine there are 432 citations between the years that the information is filtered. Likewise, in third place is Sciece with an H5 and a production of 401, which indicates that comprehensive training and higher education become aspects that permeate multiple aspects of science and the different areas of knowledge.

Given the above information, it is pertinent to make a diagram by concurrence of both authors and words found in the articles considered, as it has been pointed out, we are working in the range from 2015 to 2021 and the results shown show the results up to 2022 so far this year, thus assuming the benefits of the VOSviewer software when filtering, the following figures were shown:

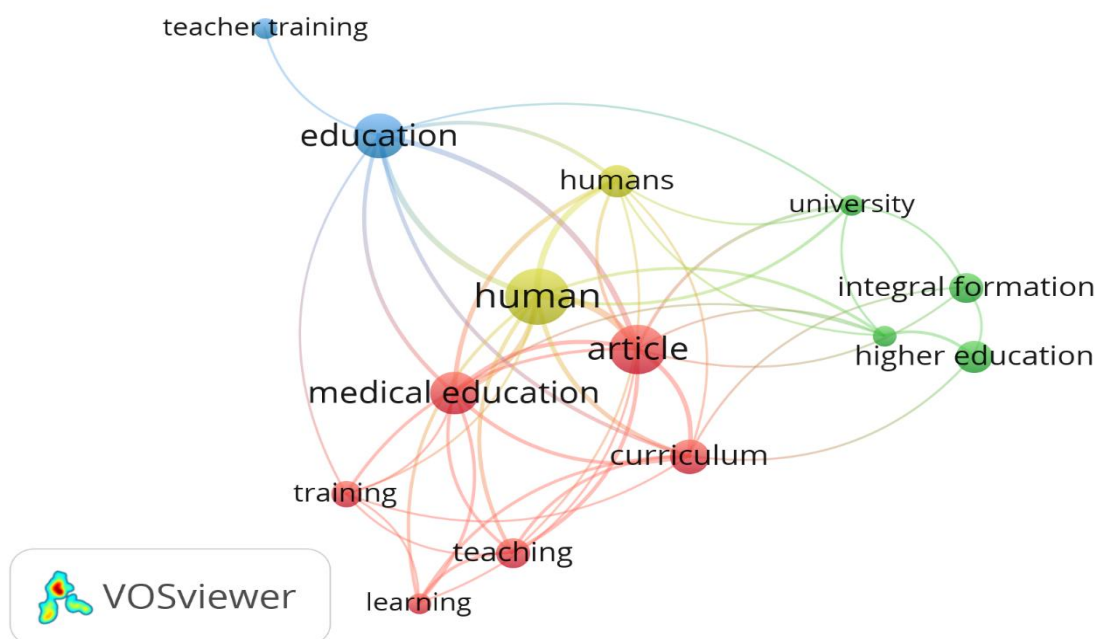
Figure 4. Author concurrence map



Source: Author's compilation, 2022

This figure shows the concurrence of authors, which was done with the intention of verifying the author with the highest ranking of scientific production in relation to comprehensive training and higher education, where the one who stands out the most is Padrejas - Rejas, which indicates the credibility of the search for information that shows what is the object of study. Now, when reviewing these aspects, the map of concurrences emerges only when taking the integral formation premise, where the following is shown:

Figure 5. Map of concurrence on integral training

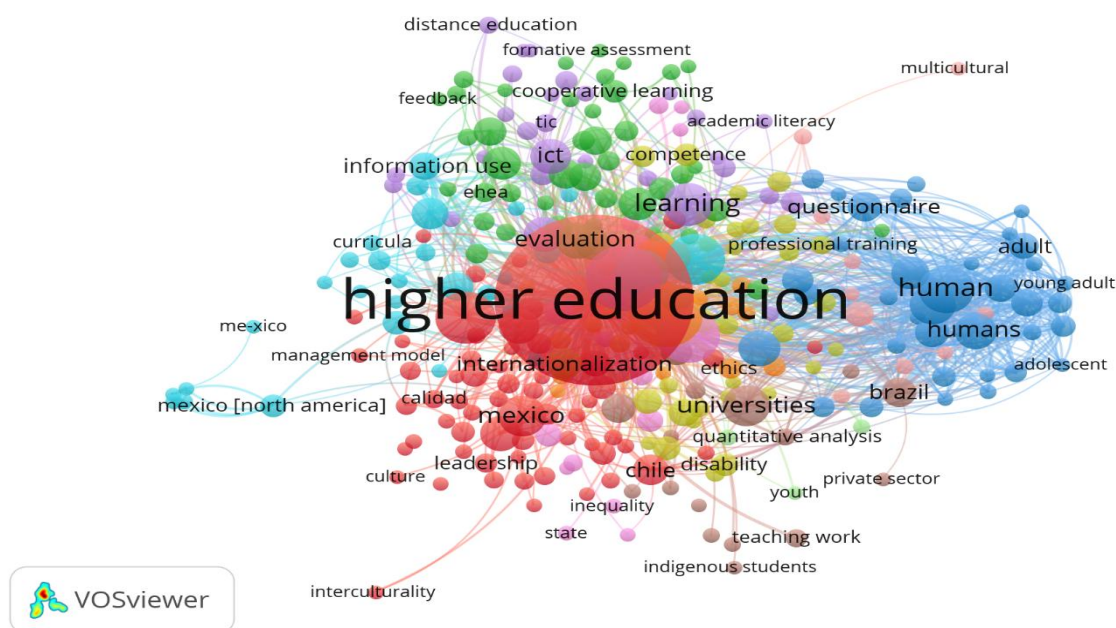


Source: Author's compilation, 2022

As can be seen, the relationship between disciplines and areas of knowledge with comprehensive training is very close, since it has to do with a whole academic conglomerate that has brought significant contributions to society and therefore to the university, where scientific knowledge is produced in order to be applied in society, thus emerging aspects of great importance to generate studies that become a source for development, progress and social welfare, in effect all this linkage supports the development of this documentary research.

The following figure shows the concurrence with respect to university education.

Figure 6. Map of concurrence on higher education



Source: Author's compilation, 2022



Higher education shows the link between the production of documents, with areas and disciplines of knowledge also including the part of what is some countries, this map shows all the description and supports the arguments given which means that through this combination between comprehensive training and higher education is achieved concrete actions that lead to the university to become an essential entity for humanity, Some have called it the house that overcomes the shadows where the diversity of thought is present and it is there where the production of knowledge and experiences emerge to be applied in different contexts as long as it is clear that the integral formation and higher education seek to promote changes and transformations in terms of development, progress and social welfare.

The documents handled with respect to the bibliometric study converge in demonstrating that comprehensive training according to Vélez, (2010), tries to assume the role that has been entrusted to them and the meaning that has "Comprehensive training from a cognitive priority". (p. 164). This allows the achievement of the objectives foreseen for the formation of the professionals of the future and to this is added the disposition of higher education that has under its vision and mission to form professionals for life that contribute to promote development, progress and social welfare, which guarantees that by combining comprehensive training and higher education it is possible to establish actions that can generate changes and transformations.

This indicates that universities should establish a way of teaching adjusted to the reality of the facts and the demands of today's society, which is why Didriksson, A; Medina, E.; Roja, M.; Bizzozero, L. &Hermo, J. P. (2008) propose:

Higher education institutions are therefore destined to play a key role in the perspective of a knowledge society, especially if they can bring about fundamental changes in their models of training, learning and innovation (p.24).

From this position, the bases of the theoretical approach are established in function to the topic of integral formation and higher education, which converges in actions for improvements and it is in this way that actions are concretized so that from integral formation and higher education, knowledge and experiences can be created for the benefit of the different university professions that have as a north to support the changes that are being presented; bearing in mind that from the different theoretical contributions, the bases of a new teaching model adjusted to the social demands can be created.

5. CONCLUSIONS

Comprehensive training and higher education go hand in hand at all times; since, the production of documents is evident, since it is tangible and it can be seen that the treatment of the subject has been carried out in different geographical latitudes, contributing with it between the years 2015 and 2021 to offer significant theoretical contributions for the proper functioning of universities and therefore for the training of professionals according to the demands of society, That is why from the universities arise scientific studies that will promote progress, development and social welfare of each nation providing a professional who is responsible for promoting society to great challenges, with the intention of contributing to the empowerment of humanity with new knowledge.

The information described above shows that the scientific contributions reflect a wealth of knowledge and experiences that become a theoretical source for various research on the subject, taking into account that some actions are established in terms of didactic, pedagogical and research tools that are provided to universities so that they can ensure quality in the processes of comprehensive training and these let train university professionals who meet the necessary conditions adjusted to the requirements of today's society that today is marked by the information society and digital technologies.



Finally, this documentary research shows an approach to what is and what has been produced theoretically from a scientific position with respect to search engines: Scopus, Web of Science and Google Scholar, which let us see that there is a very wide academic wealth in terms of the contributions given on integral training and higher education, which contributes in a good way to establish the bases of guidelines and actions that are available in each country in relation to development, progress and social welfare, which leads to achieve quality in education with a view to implement new knowledge and experiences with a futuristic look, to generate relevant and significant changes in society.

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