

New trends in integral education at the university. A systematic review according to the PRISMA Statement

Nuevas tendencias en educación integral en la universidad. Una revisión sistemática según la Declaración PRISMA

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Abstract

The objective of this work is to determine the current trends on Integral Education (IE) currently being developed by Higher Education Institutions (HEIs), as reported in the scientific literature, given the importance of the topic of integral education for higher education. The methodology employed is based on a systematic review of scientific articles deposited in three databases such as Web of Science (WoS), EbscoHost and Scopus, through a bibliometric design in accordance with the Prisma Statement. For this purpose, a search equation with its respective Booleans was established. Inclusion and exclusion criteria were established. The results show that there are trends associated with IE that do not necessarily fit the traditional concept. These trends are: research, competencies for professional performance, generic academic competencies that include transversal skills such as effective communication, critical thinking, problem solving and the capacity for autonomous learning, collaborative learning, holistic education, tutoring models and personalized follow-up, learning communities, ethical competencies and moral education, working with communities, global and intercultural competencies and the incorporation of technology. It is concluded that the IE in universities has been adjusting to expectations in line with the times and contextual needs of this era, although the holistic principle of humanity has not been completely abandoned.

Keywords: comprehensive training, trends, higher education, systematic research, PRISMA Statement.

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Resumen

El objetivo de este trabajo es determinar las tendencias actuales sobre FI que actualmente desarrollan las IES, reportadas en la literatura científica. La metodología empleada obedece a una revisión sistemática de artículos científicos depositados en tres bases de datos como Web of Science (WoS), EbscoHost y Scopus, a través de un diseño bibliométrico que se ajusta a la Declaración Prisma. Para ello se estableció una ecuación de búsqueda con sus respectivos booleanos. Se establecieron los criterios de inclusión y exclusión. Los resultados demuestran que sí existen tendencias asociadas a la FI y que no necesariamente encajan con el concepto tradicional. Esas tendencias son: la investigación, competencias para el desempeño profesional, competencias genéricas académicas que incluyen habilidades transversales como la comunicación efectiva, el pensamiento crítico, la resolución de problemas y la capacidad de aprendizaje autónomo, el aprendizaje colaborativo, la educación holística, los modelos de tutorías y seguimiento personalizado, las comunidades de aprendizaje, las competencias éticas y la educación moral, el trabajo con comunidades, las competencias globales e interculturales y la incorporación de la tecnología. Se concluye que la FI en las universidades se ha ido ajustando a expectativas cónsonas con los tiempos y necesidades contextuales de esta época, aunque no se abandona del todo el principio holístico de humanidad.

Palabras clave: formación integral, tendencias, educación superior, búsqueda sistemática, Declaración PRISMA.

INTRODUCTION

Integral education (IE) is an update adjusted to the current educational paradigm of competence-based education (CBE) of the once called humanistic education. Some authors even confuse it and/or use it interchangeably. The difference lies in the fact that IE implies an operationalization in terms of enunciation, categorization and use evidenced in the curricula; whereas humanistic education became somewhat ethereal, a very complex matter to operationalize. We are not claiming that they are the same, on the contrary, the IE responds to a paradigm based on pragmatism and the need to technify the training of people in order to respond to quality measurement parameters so much discussed and accepted worldwide.

Although the IE construct is relatively new, compared to the tradition of the humanistic paradigm, universities as flagship institutions in the use and applicability of the construct (Alarcón Ortiz, Guzmán Mirás & García 2019; Angulo, Angulo, Huamán & Espinoza, 2016; Tobón, 2013; Vargas, 2010), have been diversifying the conception of it in function of differentiating it and approaching that need to train students with competencies beyond the disciplinary and/or instrumental:

The so-called “integral education” seeks to promote human development through a process that assumes a multidimensional vision of the being with a strong social component. From this prism, it is expected to develop in citizens a responsible, self-regulated, ethical, critical, participatory, creative, supportive personality with the capacity to interact and transform their environment, allowing the construction of their cultural identity through the development of their adaptive capacities, that is, emotional, intellectual, social, material and ethical-valoric intelligence (Castro Inostroza et al., 2020, 202).

In the texts reviewed, some coincidences were found, but also divergences. Esborjón-Hargens, Reans and Gunnlaugson (2010) state, regarding these divergences, that multiple and even contradictory approaches are essential to deepen the IE. However, this is relevant because it allows the field of action to be delimited and provides specific knowledge to universities on what is rigorously required by the Colombian Ministry of National Education within the quality evaluation frameworks.

The way of conceiving the IE is covered by a series of areas that give it a multidimensional feature (Castro Inostroza et al., 2020). Hence, universities have found it necessary to declare it as a constitutive element of educational projects and models. It is based on the principle that the human being is, by nature, biopsychosocial, multidimensional and requires this completeness of dimensions for its development.

In this sense, education is obliged to respond to each of them. However, reaching this goal has so far been a difficult path. Hence, in the face of recent discussions about the demands of society and the need to generate true processes of educational quality, it is not limited to the intellectual, which has been the emphasis of education, but goes beyond, to aspects that are generally left to the formation of the home, to the assumption that at home they are provided with that knowledge. However, it is still in doubt whether the out-of-school society is prepared to assume such responsibility.

However, this does not mean that each HEI has a clear plan that definitively shows what actions it implements in practice that lead to asserting whether students are really receiving CBE together with disciplinary competencies. Likewise, in the absence of a defining line on what it implies and how to execute it, HEIs may be doing much more than what they can actually demonstrate.

Thus, the academic discourse on integrality is repeated year after year, but in terms of evidence and competencies, it is not very easy to demonstrate what and how it is carried out. Barragán (2020), through a review of several publications, states that the IE cannot be subordinated to disciplinary training; it must have equal relevance. Much less be approached as isolated trainings that emphasize on content exposure, but it should be transcended by the disciplinary training through actions of academic performance that allow updating the dimensions in an operational way, but that transcend into the subjectivity of the individual.

Consequently, in this research we have set out to systematically review the subject of the IE in universities, in order to determine what the new trends are on IE currently being developed by HEIs. To this end, we start from the following question:

RESEARCH QUESTION

What are the current trends around the Integral Formation of university students reported in the scientific literature?

METHODOLOGY

A quantitative, bibliometric approach was followed, specifically, a systematic review (Gough, Oliver, & Thomas, 2017; Tranfield, Denyer, & Smart, 2003), linked to the scientific production of the years 2017-2021 of indexed scientific journals, for this purpose the PRISMA Statement (Page, McKenzie, Bossuyt, Boutron, Hoffmann, Mulrow; et al. 2021) was used. Boolean equations were constructed taking into account the study variables.

INCLUSION CRITERIA

The inclusion of the data took into account that they were studies published between 2017 and 2023; that they complied with the study variables: integral education, higher education, university students and/or university/ies. Likewise, that they were in open access download, in full text, without language or geographic distinction, taking into account the variables studied for the systematic review.

EXCLUSION CRITERIA

Research that was not *open-access* or incomplete was excluded, as well as opinion texts, essays, letters to the editor, editorials, and reflections. In addition, works that were not directly associated with educational topics, as well as articles that once selected did not meet the specific criteria associated with the study variables were also excluded.

SEARCH STRATEGIES

The search for information was carried out in the following databases: Web of Science, EbscoHost and Scopus, taking into account a single search equation (Table 2) constructed in English with their respective Boolean operators.

Table 1. Search equations

Ecuación de búsqueda

liberal arts AND holistic education OR undergraduate student NO arts education AND inquiry-based learning OR argumentation NO disciplinary competencies AND service-learning OR collaborative learning NO content-based learning AND problem solving OR learning communities NO humanistic education AND holistic university education OR higher education NO human development AND holistic skills OR research competencies NOT teaching

Own elaboration (2023)

Once the final list of studies from the three databases was obtained, the verification analysis based on PRISMA 2020 was performed. From this first phase, each initial list was deputed because, as shown in Table 3, each search obtained a certain number of articles which, when the detailed analysis was carried out, was considerably reduced, depending on the operationalization of the application of the filters in the use of the databases and the proposed equation.

Tabla 2.
Search cross-referencing in databases

Crosses / Database	Equation
Web of science	597
Ebsco Host	1.356
Scopus	143
Total	2.096

Own elaboration (2023)

Table 3.
Process of identification, deletion and selection of items.

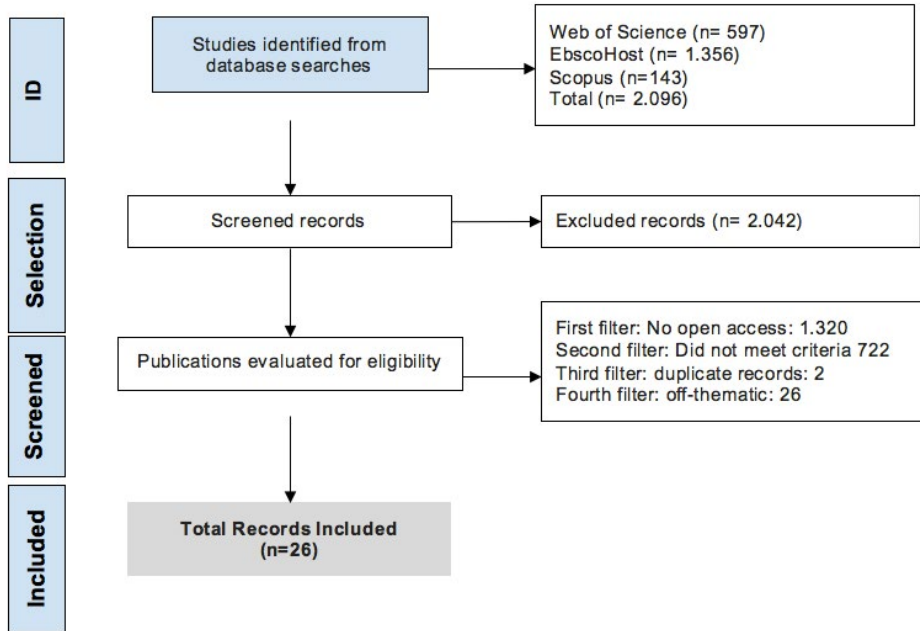
Database	Unfiltered	No access/ incomplete article	Did not meet the criteria	Repeated	Selected
Web of Science	597	586	0	1	8
EbscoHost	1.356	617	612	0	11
Scopus	143	117	110	1	7
Total	2.096	1320	722	2	26

Own elaboration (2023)

RESULTS

For the results, the data obtained from the equation were crossed with the Boolean data in the three selected databases, for a total of 2,096 results. For Web of Science, 597 were obtained, in Ebsco Host 1,356 publications were found and, finally, in Scopus 143. With respect to the documents without access, a total of 1,320 articles were found, in the following filter the documentation that did not meet the criteria were identified for a total of 722. The final selection of the studies resulted in 26 references that were used to process the information. Given the results obtained, these are presented in the flow chart in Figure 1.

Figure 1.
Flowchart of the study selection process.



Note: Figure adapted from the PRISMA Statement.

Analysis of Results

No	VARIABLE	DOI/ISSN	CONTRIBUTIONS	DATABASE	AUTHOR	YEAR
1	Competencies for professional performance	2477-9555	The following are recognized as professional performance competencies: instrumental (cognitive, methodological, technological and linguistic skills), interpersonal (social skills for research activities) and personal (leadership, creativity, ability to work independently, desire to succeed, initiative and entrepreneurial spirit). Training under the liberal arts approach fosters the management of non-cognitive academic generic competencies that contribute to good performance: interdisciplinary understanding to explore unknown academic fields and self-directed learning practices to face difficulties.	Ebsco Host	(25)	2020
2	Generic academic competencies	10.1002/curj.158		Scopus	(20)	2022
3	Collaborative learning and problem solving	10.1007/s10639-023-11674-z	Role scripts (cognitive orientation) and guidance scripts (strength to achieve objectives) should be considered in collaborative problem solving learning.	Web of Science	(23)	2023
4	Holistic education	10.1080/03057240.2017.1406346	Liberal education is a valuable tool to achieve the goal of a holistic education. Integration with practical and scientific subjects is essential to prepare students for various professional roles.	Ebsco Host	(42)	2017

No	VARIABLE	DOI/ ISSN	CONTRIBUTIONS	DATABASE	AUTHOR	YEAR
5	Mentoring and performance models	10.1007/s10639-022-11429-2	Cognitive tutor guidance significantly improves performance over organization-oriented tutor guidance. Thus, training given to peer tutors should focus more on how to stimulate higher-level cognitive thinking skills than on organizational skills.	Web of Science	(21)	2022
6	Learning communities	10.1177/1936724419826620	The experience-based practice of learning communities bridges gaps and connects theory with practice in the fields of application.	Scopus	(35)	2019
7	Music education	10.12738/estp.2018.5.105	The multidimensional deconstruction of integral competence, as well as in the identification of the relevance of music education, evidences how music education can contribute to the integral education of university students.	Ebsco - Host	(43)	2018
8	Research skills	10.1080/0020739X.2022.2115421	The inclusion of Operations Research in higher education and the implementation of a collaborative way of working for the development of modeling and problem solving skills in students. It also highlights the connection established between mathematics and the real world, which can help students understand the applicability of mathematics in everyday life and science.	Web of Science	(37)	2022

No	VARIABLE	DOI/ ISSN	CONTRIBUTIONS	DATABASE	AUTHOR	YEAR
9	Ethical competencies	10.24193/tras.55E.6	Competencies related to ethics and ethical behavior were evaluated as the most important in the field of administrative sciences. The competency assessment approach and the proposal of a set of discipline-specific competencies linking theory and practice in the area of education and performance in management.	Ebsco Host	(36)	2018
10	Research skills, collaborative work, working with communities, interdisciplinarity		The text presents a novel contribution to the integral education of physicians and health professionals in "structural competence" through a community-based collaborative participatory research model. It emphasizes the need to work with an interdisciplinary team that includes community partnerships and individuals with diverse non-clinical areas of expertise for a more complete and accurate understanding of the structural determinants of health.	Web of Science	(04)	2022
11	Cultural competencies and global competencies	2457-9807	The text contributes to a novel trend in integrative education that focuses on the study of international students' experiences at a liberal arts college in the United States. It offers new insights and knowledge about the identities and experiences of this student population that is often overlooked in international education research. In addition, the text highlights the importance of subcultures that form with other international students to help them adapt to their new environment without feeling compelled to discard aspects.	Ebsco Host	(33)	2018

No	VARIABLE	DOI/ ISSN	CONTRIBUTIONS	DATABASE	AUTHOR	YEAR
12	Global competencies	10.32674/jis.v10i3.969	The formation of communities among international students is an important point because it helps in adapting to the new context, to overcome the challenges of studying abroad and to succeed in a community of unfamiliar knowledge. The results of this project suggest that incorporating motion capture technology into the psychology curriculum at a liberal arts college can be an effective way to enhance students' research skills and improve their understanding of the scientific process. In addition, this may also help students develop technical and metacognitive skills, which are valuable in any context.	Scopus	(08)	2020
13	Incorporation of technology	10.25304/ht.v26.2119	The inclusion of moral education and the formation of positive and diversified values in business and school education for continuous improvement is a principle of integral education.	Scopus	(44)	2018
14	Moral education	10.1177/00207209211003212	The addition of courses related to Public Health or Global Health focuses on issues of international and U.S. national health disparities.	Web of Science	(34)	2021
15	Global competencies	10.4269/ajtmh.18-0017	Structural competence in epidemiology limits the ability to provide knowledge about social forces, both on the side of the object (health, disease, care) and on the side of the researcher.	Scopus	(29)	2018
16	Cultural competencies	10.1080/17441692.2023.2164903		Web of Science	(04)	2023

No	VARIABLE	DOI/ ISSN	CONTRIBUTIONS	DATABASE	AUTHOR	YEAR
17	Research skills	10.34172/ijhpm.2020.258	The six domains of core competencies for researchers include understanding the complexity of health systems, policy and program evaluation, data and evidence evaluation, ethical reasoning and practice, leadership and mentoring, and knowledge and evidence translation and utilization.	Web of Science	(31)	2022
18	Theory and practice	10.7764/psykhe.29.1.1228	The pedagogical aspects associated with theory and practice, contribute to the integrality of the curriculum, from the attention to the dimensions of the formative process, and the union to the articulation and production of new knowledge.	Ebsco - Host	(29)	2020
19	Interdisciplinarity, critical thinking and problem solving	10.32744/pse.2020.4.1	The liberal arts and sciences contribute to a well-rounded education because of their interdisciplinary base and develop skills such as critical thinking, problem solving and effective communication.	Scopus	(16)	2020
20	Critical thinking, research and formative accompaniment	10.15332/rt.v0i14.2463	The strengthening of students' integral education is based on the development of critical thinking, the structuring of learning networks, research and formative accompaniment.	Ebsco - Host	(25)	2020
21	Citizenship competencies	10.1111/area.12440	Universities play a fundamental role in the formation of citizenship competencies, as evidenced by the multiple discourses, values and competitive logics that must be considered in the curriculum for professional education.	Ebsco - Host	(10)	2018

No	VARIABLE	DOI/ISSN	CONTRIBUTIONS	DATABASE	AUTHOR	YEAR
22	Interdisciplinary and culture	10.1080/00091383.2019.1674107	The liberal arts improve students' expectations by encouraging interdisciplinary courses, the promotion of culture and the arts, generating a integral education.	Ebsco - Host	(23)	2019
23	Experience and culture	10.1007/s11217-019-09682-z	Neoliberal education has impacted culture. Higher education grounded in experience and culture helps to counteract today's challenges.	Ebsco - Host	(14)	2019
24	Collaborative work and interaction	10.1007/s10734-019-00365-9	Student effort, collaborative work, interaction with teachers improve engagement, GPA and student satisfaction with their education.	Ebsco - Host	(44)	2019
25	Reflection and integrality	ISSN-e: 2477-9555	The reflection and integrality of the curriculum, together with the practical training strategies, favor the critical, sensitive, responsible and creative development of the subject's dimensions.	Scopus	(40)	2019
26	Cultural competencies	10.3352/jseh.p.2021.18.3	The intervention focused on the development of cultural competencies in professional practices improves students' attitudes, skills and knowledge.	Web of Science	(5)	2021

DISCUSSION

Today's society requires professionals with a series of holistic and critical competencies for understanding, analyzing and intervening in the sociocultural context, beyond disciplinary reductionism. The result of this review indicates that universities have an urgent duty to train students with high competencies in research, argumentation and communication; consequently, they must have courses aimed at interdisciplinarity, with emphasis on social practice, collaborative work and structuring of learning networks and problem solving.

The analysis of the contributions and meanings to integral education in the categories mentioned above reveals the importance of different aspects for the complete development of individuals. The following are the main variables obtained as socio-formative trends of IE that are being used by universities worldwide in these years:

1. Research goes beyond a few courses with methodological training purposes. Today it responds to a holistic vision that encompasses another set of competencies such as social service, collaborative learning, problem solving and critical thinking.
2. Competencies for professional performance refer to the specific skills and knowledge needed to practice a profession effectively. They should be linked to the core competencies needed for research, knowledge and evaluation of policies and programs, identification of domains such as understanding of disciplinary professional systems, leadership and the ability to adapt to a constantly changing work environment.
3. Consolidation of generic academic competencies that include transversal skills such as effective communication, critical thinking, problem solving and the capacity for autonomous learning. The importance of developing cultural, academic and personal skills is emphasized so that students can adapt to diverse national and international contexts without undermining their academic potential.
4. Collaborative learning because it encourages interaction among students, promoting cooperation, mutual respect, interculturality and the joint construction of knowledge. In addition, it strengthens social skills, teamwork and empathy, allowing students to learn in an active and enriching way.
5. Holistic education considers the whole person, encompassing physical, emotional, social and spiritual aspects that enable them to respond to challenges and maintain unique aspects of themselves. By focusing on the holistic development of students, this perspective contributes to their well-being and personal growth, promoting a balance between different dimensions of life.
6. The tutoring and personalized follow-up models provide individualized support to students, fostering their academic and personal growth. They strengthen integral education by allowing students to receive guidance, feedback and accompaniment

in their development, promoting greater self-knowledge and autonomy. In addition, tutoring models encourage interaction and support among peers, especially in contexts of cultural and linguistic diversity.

7. Learning communities (LCs) are spaces where students interact with their peers, teachers and other members of the educational community. These communities will foster the exchange of knowledge, diversity of perspectives and mutual learning, enriching integral education by promoting social interaction, collaboration and the development of communication skills. Likewise, the LCs provide a sense of belonging and support in the university.
8. Ethical competencies and moral education involve the ability to make ethical decisions and act responsibly in different contexts, as well as continuous reflection on values. This dimension strengthens integral education by helping students to develop a sense of responsibility and moral conscience, as well as to understand the ethical implications of their actions.
9. Working with communities involves interaction with diverse social groups and a commitment to the common good. In this way, it contributes to integral education by promoting values such as justice, solidarity and respect for diversity, along with the implementation of other competencies related to problem solving, critical thinking, effective and assertive communication and leadership. The importance of developing a sense of belonging and connections in the community is also mentioned, which may involve the promotion of ethical practices and collaborative work with communities.
10. Global competencies: the importance of developing intercultural competencies for students is highlighted, which is relevant in the context of global education and the interaction with students from different cultures and contexts that permanently apply to exchange programs and inter-institutional relations. This obliges HEIs to take measures to prepare students for this type of experience and to ensure that the process is of great benefit without emotional and/or social effects.
11. Finally, it is recognized that it is mandatory to incorporate technology in integral education, since it allows students to acquire digital skills, access online educational resources and develop the necessary competencies for their active participation in the digital society.

CONCLUSIONS

Today's society demands professionals with holistic and critical competencies that go beyond the disciplinary approach. Universities must respond to this urgent demand by training students with high competencies in research, argumentation and communication.

To achieve this, it is necessary to implement practices that promote interdisciplinarity, collaborative work, problem solving and social practice. Holistic education benefits from different aspects, such as the development of competencies for professional performance, generic academic competencies and collaborative learning. In addition, holistic education, mentoring models and working with communities are fundamental to promote students' personal and social growth.

In turn, axiological aspects traditionally linked to integral education continue to be part of it, such as moral education and the strengthening of ethical competencies, but this time associated with the formation of responsible individuals who are aware of their actions in different contexts. Likewise, the promotion of global and cultural competencies allows students to adapt and prosper in national and international environments. Finally, the incorporation of technology is crucial to prepare students for the digital society, providing them with digital skills and access to online educational resources.

In summary, to achieve an integral education, universities must promote research, critical thinking, problem solving, collaborative work, interdisciplinarity and the development of ethical, cultural and global competencies. In addition, it is necessary to take advantage of technology to prepare students for the challenges of today's society.

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