

Educational inclusion in the perspective of university teachers from five Latin American universities: Notes on the validation of the questionnaire

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Abstract

University educational inclusion has been the subject of several studies at the international level and in the Latin American region in particular. The novelty of the present study lies in the fact that the diagnosis of the object of research has been carried out from a renewed theoretical basis, i.e., the incorporation of theoretical indicators not previously evaluated and which are considered by the authors as key aspects to measure educational inclusion from the viewpoint of university teachers. This made it necessary to design an instrument with technical capacity and scientific rigor, which was subjected to a validation process that provided new research horizons on the subject. A bibliometric review of Educational Inclusion and University Teaching variables was also carried out to know the current status of the scientific production published in high-impact journals indexed in the Scopus database, where the main characteristics within the volume of publications were described.

Keywords: Educational Inclusion, University Teachers, Higher Education.

1. Introduction

The study is a partial result of a funded international research project entitled: “Development of community, family and gender professional intervention capacities for university educational inclusion,” approved by the Peninsula Santa Elena State University (UPSE), with the participation of five Latin American universities from three countries: Universidad Arturo Jauretche, Argentina, Universidad Autónoma de Ciudad Juárez, Mexico, Universidad Técnica de Manabí, Universidad Nacional de Loja and UPSE, Ecuador.

The incorporation of the teacher’s perspective into the study is an aspect that makes the research interesting. Generally, this type of research tends to address the student’s perception of the inclusion problem. In order to exert a significant influence on student educational inclusion, teachers must feel that their work experience is inclusive (Mafla et al., 2022).

In correspondence with the above, a set of base concepts were considered, resulting from the operationalization of the university educational inclusion variable, which, in addition to issues traditionally studied such as access, permanence, and participation, incorporated others such as the inclusive appropriation

of the experience, understanding of the community reality, family and gender for inclusion, critical thinking, type of bond established in the experience, collaborative work, conflict resolution, among others, aspects that modify the spirit and letter of the indicators commonly used in this type of studies, In addition to aspects that modify the spirit and the letter of indicators commonly used in this type of studies and that presupposed the statistical validation of the main instrument used, the questionnaire: the questionnaire (Cabrita et al., 2022). To achieve the stated objective, a bibliometric review of Educational Inclusion and University Teaching variables was also carried out to know the current state of the scientific production published in high-impact journals indexed in the Scopus database, where the main characteristics within the volume of publications were described.

2. General Objective

To present a diagnosis of the main variables to measure university teachers' perception of inclusive education.

Methodology

3.1 Participants

The study sample comprised 229 teachers, 59.4% female and 40.2% male, with 0.44% reporting another gender. Ages ranged from 19 to 71 years, divided into several classes.

3.2 Instrument

The validated measurement instrument is a self-perception questionnaire composed of 52 items, according to a Likert-type scale (1 means do not agree at all and five means strongly agree). The design and elaboration of the Likert scale were developed in three phases and were initially designed and validated by specialists from seven countries and several universities and research centers.

3.3 Procedure

Once the procedures of information, conformity and acceptance of participation of teachers from the universities participating in this study were completed, the questionnaire was applied to be answered voluntarily and anonymously. This occurred during research-action-participation sessions promoted by the research project and also using other means of socialization of the instrument. Finally, the responses were tabulated and the statistical analysis was carried out.

3.4 Statistical analysis

The statistical analysis of responses to the questionnaire was analyzed using the SPSS V.22 statistical program. Cronbach's alpha (reliability of the questionnaire) was calculated. In addition, the Varimax orthogonal rotation method was used to group the items into factors or components that could explain the variance observed in the answers given by the subjects (Escalante and Caro, 2006).

Next, the degree of correlation between the variables was analyzed, which should have high values to make the factor analysis feasible. Finally, the data were also analyzed using the Kaiser, Meyer and Olkin KMO (Kaiser, 1970) and Bartlett's test of sphericity (Bartlett, 1950).

3.5 Item reliability analysis.

The questionnaire consisted of 52 items; the data were processed to study the reliability of the instrument scale, finally obtaining a Cronbach's Alpha of ,869, on 229 cases (responses to the questionnaire).

Reliability statistics

Cronbach's alpha	Cronbach's alpha based on standardized items	N of elements
,869	,888	52

Table 1. Reliability statistics

Next, the degree of correlation between the variables was studied; the values of this analysis must be high to perform the factor analysis. The sample adequacy index KMO reached the value of .841, and Bartlett's sphericity test yielded 3566.662 (Approx. Chi-Square), a gl value of 703 and a Sig. 000; with which the responses are substantially related, so justifying the advance in the factor analysis of the items and their responses.

KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		,813
Bartlett's test for sphericity	Approx. chi-square	5657,697
	gl	1326
	Sig.	,000

Table 2. KMO and Barlett's Test

Next, the study proceeded to establish the communalities or proportion of variance explained by the components, which resulted in 6 factors, following the recommendation of experts in factor analysis. In general, since there were no values close to zero, it can be affirmed that the components explain the 52 items.

The analysis of the principal components and Varimax rotation revealed convergence in six components that explain 46.818% of the variance. The first component explains the greatest variance with 18.282%, the second factor with 8.930%, the third with 6.429%, the fourth with 5.257%, the fifth with 4.395% and the sixth with 3.524%, as shown in the table below.

Component	Initial eigenvalues		
	Total	% variance	Accumulated
1	9,507	18,282	18,282
2	4,643	8,930	27,212
3	3,343	6,429	33,641
4	2,734	5,257	38,898
5	2,286	4,395	43,293
6	1,833	3,524	46,818

Table 3. Total variance explained

The correlations show that the factors indicated a strong relationship and dependence between them, affirming that the data obtained confirms the validity of the questionnaire with a six-factor structure.

3.6 Bibliometric analysis

Bibliometric review on the variable *inclusive education, university teaching*, to know the current state of the literature published in high impact journals indexed in Scopus database during the period 2017-2021 by Latin American institutions.

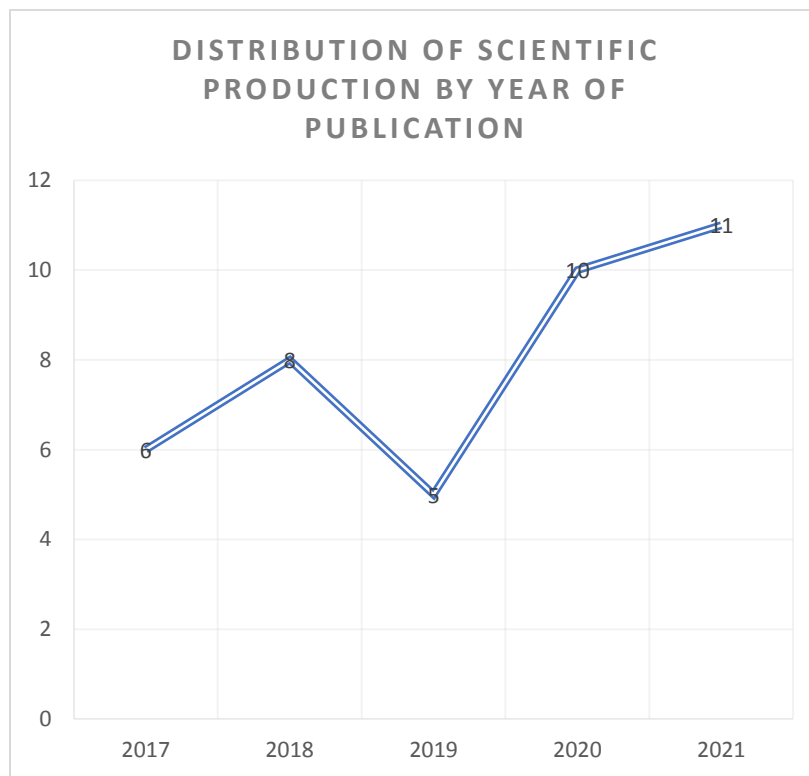


Figure 2. Distribution of scientific production by year of publication.

Source: Own elaboration (2022); based on data provided by Scopus.

One of the main characteristics to evaluate is the volume of production according to the year of the publications since it is possible to understand which external factors encourage or discourage research on certain topics, for example, in the case of the study of Educational Inclusion and University Teaching, there is evidence of an increase in the number of publications registered in 2020 and 2021 when 10 and 11 documents were published and subsequently indexed in Scopus, while in 2019 this number reached five types of research. This is still a significantly low number, considering that the analyzed production corresponds to the entire Latin American territory. Even so, from the data above, it can be inferred that the doubling of the total number of records in Scopus may be due to the appearance of the disease named Covid-19, which generated a high degree of uncertainty in all social and economic sectors globally, to which education was no stranger and the scientific community saw the need to improve the academic system to provide greater inclusion in the training processes.

4.3 Distribution of scientific production by country of origin.

Figure 3 shows how scientific production is distributed according to the nationality of the institutions with which the authors are affiliated.

Brazil, Chile and the United Kingdom are part of a few countries that have presented to the scientific community a series of publications co-authored by researchers affiliated with institutions in those countries. Similarly, Colombia and Honduras and Argentina with Mexico and Spain.

5. Conclusions

Education at a global level experienced one of the most destabilizing events in recent history, as was the arrival of Covid-19, which originated in China and quickly spread throughout different nations and continents, urging health authorities to order absolute and indefinite confinement until a vaccine or antidote was invented that would be able to reduce the number of contagions and deaths. As a result, many economic and social sectors were affected in their everyday activities. In the case of education, the virtualization of academic content revealed a whole series of social inequality gaps since, in emerging economies, families living in poverty and extreme poverty usually represent a high percentage of the total demographic, so access to digital devices and connectivity was one of the aspects that increased efforts to evaluate how inclusive educational institutions are at all levels of education. Therefore, this document concludes by stating that, from teaching in higher education, efforts have been made to design programs to increase education coverage and develop activities that provide equity for all students within the diversity of Latin American societies. It is therefore expected to encourage scientific research on the position of university teachers regarding inclusion in the educational system.

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