

SECCIÓN: ARTÍCULOS

Systematic mapping of literature on teacher evaluation (2013-2017)¹

Claudia Navarro Corona²
María Soledad Ramírez Montoya²

Abstract

International research has shown that it is possible to maintain quality education without external educational evaluations; however, evaluation is increasingly being considered by educational systems as a support for teacher professionalization. The objective of this article is to characterize the scientific production on teaching evaluation published in the five-year period between 2013 and 2017, based on the inclusion criteria of the Scopus and Web of Science databases and thematic and duplicate exclusion criteria. Through the methodology of systematic literature mapping, 106 articles were found, and the main languages and countries in which the scientific production on teacher evaluation has been produced, their accessibility and types of work produced were identified. The topics of greater impact were identified and classified according to consolidated and emerging lines of research. It is concluded that there is an underdevelopment of lines of research that link teacher evaluation to the professionalization of teaching, and that the concern regarding the quality of evaluation processes and instruments remains current in scientific production. The systematic mapping of literature offers a careful selection of works of production on the subject and enables researchers and interested readers to trace precise paths of inquiry.

Keywords

Teaching evaluation – Educational innovation – Training – Literature review.

Introduction

International research shows that it is possible to maintain a quality education without third-party educational evaluations. The educational systems that grant more autonomy to schools place greater emphasis on internal evaluation processes; this implies greater attention to teacher training and professionalization schemes or their connection with evaluation procedures. An example is Finland, where the educational system not

1- English version by Sarai Márquez Guzmán. Contact: sarai.marquez.guzman@gmail.com

2- Tecnológico de Monterrey, Monterrey, México. Contactos: c.navarrocorona@gmail.com; solramirez@itesm.mx



DOI: <http://dx.doi.org/10.1590/S1678-4634201844185677>
This content is licensed under a Creative Commons attribution-type BY-NC.

only has foregone external evaluation processes, but the topic is not even an issue. Also, in Western Europe, teacher evaluation is understood more as a process of reflection rather than a quality control system (MURILLO, 2007).

The purposes of teacher evaluation in each country are linked to traditions and the decentralization degree of their educational systems. In this sense, in countries where systems give more autonomy to schools, the purposes of teacher evaluation focus on attracting the best candidates to the teaching profession and keeping teachers motivated throughout their career. In Latin America, evaluation processes are more oriented towards the regulation of individual careers through promotions, salary increases, and raising the quality of teaching work (OECD, 2013a, 2013b).

The trend of teacher evaluation in an international framework, especially in centralized education systems, has had summative goals; in countries with greater autonomy, a greater orientation towards formative evaluation has been identified, in which the information retrieved is used for the professionalization of teachers (OECD, 2013a, 2013b). International organizations such as the Organization for Economic Co-operation and Development (OECD) have emphasized that the effectiveness of evaluations lies in the possibility of increasing the skills and competencies of those evaluated (OECD, 2013c). Reorienting the teaching evaluation toward formative rather than summative ends makes timely the exploration of previous experiences to identify alternatives for the evaluation of the teaching staff.

Production on teacher evaluation is extensive. A simple search of the words *evaluation of teacher* in specialized databases such as Scopus or Web of Science (WOS), for example, yields more than 25,000 documents that include this keyword in their titles, illustrating the volume of production.

In this framework, the general objective of this article is to characterize the scientific production on teacher evaluation published in the 2013-2017 period. The general research question is: what has scientific production been like regarding teacher evaluation in the last five years? Through mapping, five specific objectives are achieved: (1) identify production trends between 2013 and 2017, (2) identify the languages and countries in which scientific research has dealt with teacher evaluation, (3) characterize the production on teacher evaluation as to its accessibility, type of production and publication spaces, (4) identify the specific topic of scientific production on teacher evaluation in the international context, and (5) identify the works that have had the greatest impact between 2013 and 2017. The purpose of the work is to offer a navigation map that would allow the reader interested in the topic of teacher evaluation to know a set of selected publications based on criteria and select the most appropriate routes for their inquiry interests.

The present work consists of four additional sections to this introduction. The second section exposes the main difficulties that educational research has identified in the processes of teacher evaluation. The third describes the method of systematic mapping of literature and presents it as an alternative for selection of works and exploration of a large number of publications. The methodological phases and their steps are described. The fourth section contains the results of the mapping. These are organized according to the five specific questions that guided the extraction of information from the databases. Each subsection corresponds to a research question (RQ). The fifth section presents the conclusions.

The teaching evaluation

Reviewing evaluation models in different educational systems allows us to identify that teacher evaluation has a greater tradition in teacher accreditation processes and their abilities to make decisions regarding promotion, salary increase or even permanence in the post (MURILLO, 2007). Teacher evaluation has become one of the main mechanisms for regulating the career and professionalization of teachers. Both the educational policy and the research in the field have discovered different difficulties in the process. Mateo (2000) identifies as main difficulties of teacher evaluation (1) the conceptual definition of criteria used for teacher evaluation, (2) the technical quality of measurement instruments, (3) the insertion of evaluation between processes of educational systems and their policies, (4) the definition of a legal and regulatory framework that legitimizes processes, makes them official and guarantees rights fulfillment, (5) the installation of evaluation cultures for improvement and (6) the protection of the information and honor of those evaluated.

These approaches have also been addressed by different researchers around the world, who, from exploratory or critical positions, have made different recommendations that can contribute to the solution of the difficulties. Among the main recommendations found are the following.

- a) The search for congruence between the theoretical approaches that underlie teaching practice and the evaluation model in which teachers participate (GOODWIN; WEBB, 2014).
- b) The definition of criteria that help clarify and standardize what it means to be a good teacher and what is a good teaching practice (LOONEY, 2001; BADRTDINOV; GOROBETS, 2016).
- c) The construction of quality instruments and the assurance of equitable and controlled processes (PELLEGRINO; DIBELLO; GOLDMAN, 2016).
- d) The use of results for decision-making only when quality criteria are guaranteed both in the instruments, as well as in evaluation procedures and processes (WARRING, 2015).
- e) The integration of evaluation, training and professionalization processes to perfect the practice (ÁVALOS, 2007; VAILLANT, 2008).

The considerations made by experts invite us to consider that evaluation processes must be examined and retooled to promote a more formative approach that articulates goals, theoretical approaches, technical quality and use of the results (MURILLO, 2007).

Systematic mapping of literature

The objective was to carry out a systematic mapping of scientific production on teacher evaluation. Systematic mapping is a particular type of literature review; it is considered a secondary type study (KITCHENHAM; CHARTERS, 2007), used to identify, evaluate and synthesize research, mainly of a primary nature, although not exclusive of other types of publications, with the aim of answering questions previously raised to guide the review (SINOARA; ANTUNES; REZENDE, 2017). The mapping can be a study in itself, or be part of an early stage of a systematic review of literature; in this case, the mapping will be carried out as a first phase, applied as a search and selection strategy.

To define the methodological route of this study, the proposals of Petersen et al. (2008) and Sinoara, Antunes and Oliveira (2017) were adopted. The design was structured in six steps organized into four methodological phases. Figure 1 schematizes the mapping process. Subsequently, each of the phases is detailed.

Figure 1- Systematic mapping process adapted from Petersen et al. (2008) and Sinoara, Antunes and Oliveira (2017)



Source: Authors.

Phase 1: Definition

In the first phase, the problem was defined through the statement of research questions that would guide the subsequent phases, from the search to the analysis of the information. The questions were formulated in such a way that they would make possible the navigation in the universe of the production in the subject. Five guiding questions were formulated; these are detailed in Table 1.

Table 1- Research questions

	Question	Information needed
RQ1	What production trends are observed in the period between 2013 and 2017 on the topic of teacher evaluation?	Increase or decrease in production over the years.
RQ2	In which languages and in which countries is research on teacher evaluation produced?	Languages. Countries.
RQ3	How is the production on teacher evaluation, regarding the type of work and accessibility?	Open or closed access. Types of documents: articles, books, chapters, others.
RQ4	What works have had the greatest impact on the scientific production on teacher evaluation?	Number of citations.
RQ5	What lines have been developed in the research on teacher evaluation?	Specific topics of the production

Source: Authors.

Phase 2: Locating scientific production

Searches of scientific production were conducted through the Scopus and Web of Science (WOS) databases. Two types of search queries were carried out:

(1) *Pilot searches*. Terms were entered into the database and the type of documents retrieved was observed. The terms used were *evaluation*, *assessment*, *teacher* and *teaching* and search terms were tested combining them with the Boolean tools *AND* and *OR*. This search allowed to define the definitive descriptors.

(2) *Final search*. Table 2 shows the search terms used to locate the production to be analyzed.

Table 2- Terms used in the final search query

(TITLE ("evaluation of teacher") OR TITLE ("evaluation of teaching") OR TITLE ("Assessment of teacher") OR TITLE ("Assessment of teaching")) AND TITLE-ABS-KEY (education)

Source: Authors.

An additional step was the selection of exclusion and inclusion search criteria to refine the results. The search queries were made as equivalent as possible in the two consulted indexes. Table 3 specifies the refinement criteria for each database.

Table 3- Search refinement

Criterion	SCOPUS	WOS
Period	January 2013- June 26, 2017	
Language	All of them	
Types of document	All of them	
Area of knowledge	Social Sciences	Education educational research Education Scientific Disciplines Social Sciences interdisciplinary

Source: Authors

Phase 3: Pre-analysis

The pre-analysis involved the first interactions with the documents. The titles and summaries of each text were read, assessing the relevance of each document identified in the search and selecting them in the refinement. Inclusion and exclusion criteria were established. Items discarded were:

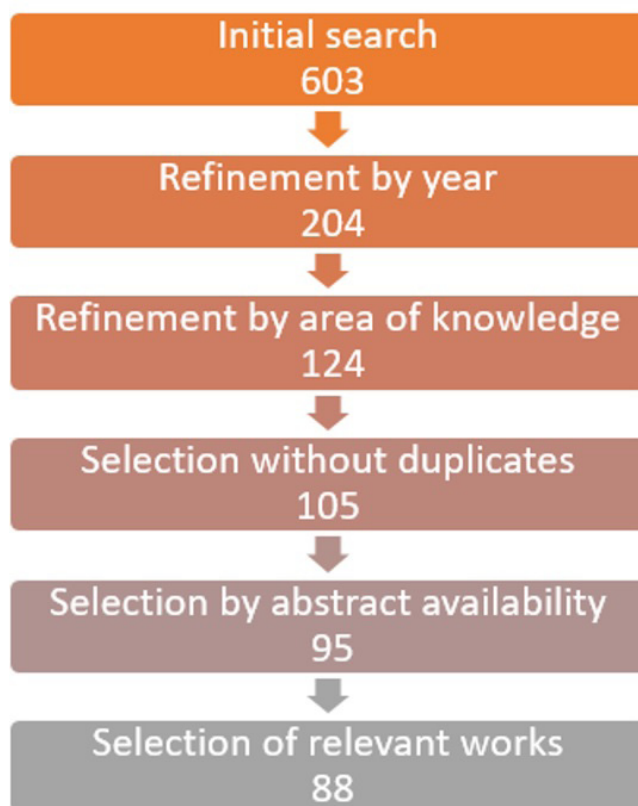
1. Documents that were duplicated in WOS.
2. WOS and SCOPUS works without available abstract.
3. WOS and SCOPUS documents that were not relevant to the field of teacher evaluation because they refer to student evaluation, carried out by teachers. Table 4 shows the number of discarded documents.

Table 4- Discarded documents

Exclusion criterion	Number
Duplicated documents	19
Documents without available abstract	10
Unrelated documents	7
Total	36

Source: Authors.

The result of the search and application of the refinement and selection codes of documents are summarized in Figure 2. Once the documents were selected, a database was prepared with the metadata provided by Scopus and WOS. Title, authors and abstract of each document were entered. Source information was included: database, year of publication, journal, country and language. Information about the characteristics of the document also included: number of times each document has been cited, type of document, pages, accessibility, volume and journal issue. Finally, a unique identification number was assigned to each document (see *Mapped production* section).

Figure 2- Document selection process

Source: Authors

Phase 4: Analysis

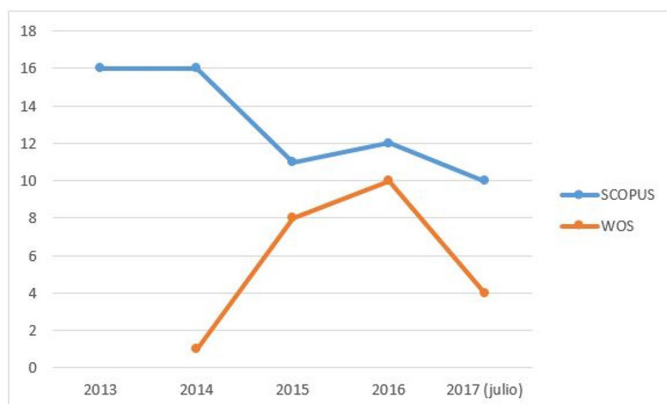
The analysis was done in two stages. In the first, the trend of scientific production was analyzed by date, language, country, type of publication and other characteristics that were established in the questions that guided the review. In the second, the content of the abstracts was reviewed and classified, in order to identify the lines of research that have been consolidated in the scientific research on teacher evaluation. The lines were established inductively from the summaries of the selected documents. The registration of the classification made was entered into the database (see *Mapped production* section).

RQ1. Scientific research trends

An increase in scientific production can be observed since 2010; however, the present mapping only includes production between 2013 and 2017. When analyzing the

databases separately, it is observed that while in Scopus it is decreasing, in WOS the trend increases. Figure 3 shows the production in the period analyzed in both databases.

Figure 3- Production trend in SCOPUS and WOS on teacher evaluation



Source: Authors

RQ2. Countries and languages of scientific production on teacher evaluation

The scientific production on teacher evaluation comes from 35 countries. The United States and China are the countries with the highest production; together they contribute a third of the total production (26 documents: 29.54%).

Figure 4- Production on teacher evaluation by country



Source: Authors

English is the main language of production, with 85.23% of the documents identified. One of the works (1.14%) was also published in Croatian. The 13.64%, which represents twelve works, was done in Spanish, Portuguese, Turkish, Chinese and French. For one of the documents, the database did not show language information; however, it was found that the language of publication is also English. Table 5 specifies the language of each reviewed document.

Table 5- Publication language³

Language	Total	%	Documents
English; Croatian	1	1,14	[15]
Chinese	1	1,14	[54]
French	1	1,14	[48]
Turkish	2	2,27	[58][94]
Portuguese	3	3,41	[9][77][92]
Spanish	5	5,68	[20][21][31][50][80]
English	75	85,23	[1][2][3][4][5][6][7][8][10][11][12][13][14][16][17][18][19][22][23][24][25][27][28][29][30][32][34][35][36][37][39][40][43][44][45][46][49][51][52][53][55][56][57][59][60][61][62][63][64][65][66][68][69][70][71][72][75][82][83][84][85][86][87][89][91][93][95][96][98][99][101][103][104][105][106]
Total	88	100	

Source: Authors

RQ3. Characteristics of production on teacher evaluation

The majority of the specialized production, 71.59%, was carried out in the article format, while proceedings papers represent 11.36% of the production. Table 6 shows the documents according to their type.

Only 13.63% of the documents included in the mapping were published in open access journals. This percentage represents twelve documents. Table 7 specifies the works according to their availability.

3- All the data collected was taken from the database; except the classification of document 13, which wasn't included in the database, neither of Scopus, nor of WOS, and had to be inspected to obtain the classification data of document type and language.

Table 6- Documents by type

Document type	Quantity	%	Documents
Book chapter	1	1,14	[4]
Editorial	1	1,14	[29]
Dissemination article	1	1,14	[32]
Revisions	3	3,41	[2][43][55]
Press article	3	3,41	[37][66][93]
Conference Paper	6	6,82	[11][16][40][45][64][91]
Proceedings Paper	10	11,36	[36][54][57][63][71][72][83][84][86][87]
Article	63	71,59	[1][3][5][6][7][8][9][10][12][13][14][15][17][18][19][20][21] [22][23][24] [25][27][28][30][31][34][35][39][44][46][48][49] [50][51][52][53][56][58] [59][60][61][62][65][68][69][70][75] [77][80][82][85][89][92][94][95][96] [98][99][101][103][104] [105][106]
Total	88	100	

Source: Authors

Table 7- Documents according to their availability

Access Type	Total	%	Documents
Open Access	12	13,63	[6][31][39][50][51][59][68][69][77][80][92][98]
Closed Access	76	86,36	[1][2][3][4][5][7][8][9][10][11][12][13][14][15][16][17][18] [19][20][21][22][23][24] [27][28][29][30][32][34][35][36][37] [40][43][44][45][46][48][49][52][53][54][55] [56][57][58][60] [61][62][63][64][65][66][70][71][72][75][76][82][83][84][85][86] [87][89] [91][93][94][95][96][99][101][103][104][105][106]
Total	88		

Source: Authors

Ten open access journals were identified, representing 13.16% of the 76 that made up the sample. Seven journals are classified in three of the four quartiles of Scientific Journal Rankings (SJR: Q2, Q3 or Q4). The journals *Profesorado* and *Conget Education* have a greater number of publications on the topic of teacher evaluation. Table 8 lists the open access journals, their SJR classification and H index.

Table 8- Review of open access journals⁴

Open access journal	No. of documents	SJR*	H
<i>Educational Assessment</i>	1	Q2	20
<i>Ensaio</i>	1	Q2	7
<i>Formacion Universitaria</i>	1	Q3	6
<i>Profesorado</i>	2	Q3	4
<i>Sage Open</i>	1	Q3	9
<i>Turkish Online Journal Of Educational Technology</i>	1	Q3	21
<i>Meta: Avaliacao</i>	1	Q4	3
<i>Cogent Education</i>	2	Not found	
<i>Journal For Educators Teachers And Trainers</i>	1	Not found	
<i>Journal Of New Approaches In Educational Research</i>	1	Not found	

Source: Authors

* SJR: Scientific Journal Rankings. H index. It is the index to determine the quality of journals according to the number of citations. The H index is the average of number of publications and their citations.

RQ4. Works with impact on the production

According to the SCOPUS and WOS databases, 68.2% of the works have not been cited in other scientific works. 31.8% has been cited once, and 22.73% has been cited more than once (20). Table 9 shows the works and their citations.

Table 9- Number of times the documents have been cited

Documents	Quantity	Number of times cited
[13]	1	59
[1]	1	9
[29]	1	8
[34]	1	7
[12][16][23][24]	4	6
[25]	1	5
[2][35]	2	4
[17][22][30][44]	4	3
[3][28][40][50][51]	5	2
[9][18][21][37][49][52][105][106]	8	1
[4][5][6][7][8][10][11][14][15][19][20][27][31][32][36][39][43][45] [46][48][53][54][55][56][57][58][59][60][61][62][63][64][65][66][68] [69][70][71][72][75][77][80][82][83][84][85][86][87][89][91][92][93] [94][95][96][98][99][101][103][104]	60	0
Total	88	--

Source: Authors

⁴ According to <<http://www.scimagojr.com/>>. Accessed on: Aug 31, 2017.

The document with the greatest impact on scientific production comes from Belgium [13]; however, Australia, the United Kingdom and the United States, provide a greater number of impact studies for the study of teacher evaluation. The relationship of countries and jobs with their number of citations is presented in Table 10.

Table 10- List of countries and documents with the greatest impact, with number of citation

Document	Country of origin	Number of citations
[34]	Australia	7
[24]		6
[35]		4
[13]	Belgium	59
[16]	Brazil	6
[2]	France, Italy	4
[29]	United Kingdom	8
[12]		6
[25]		5
[1]	United States	9
[23]		6

Source: Authors

RQ5. Lines of research developed on the production on teacher evaluation

The topic of each document was analyzed to identify which lines of research have been explored in teacher evaluation. Two sets were identified: one consolidated, which included lines of research with over ten works, and an emergent one that groups lines with less than ten works. Table 11 specifies the sets and the lines.

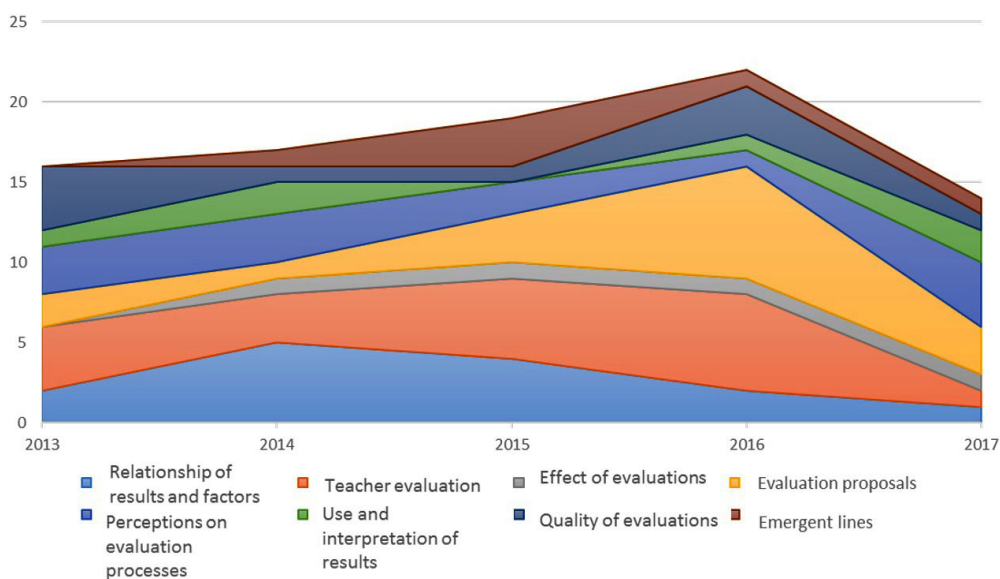
Save for the line *Effect of evaluations*, all of the lines had already been identified by 2013; as of 2017, they are still consolidating. *Teaching and teacher evaluation*, and *evaluation proposals* showed a marked increase since 2016. Figure 5 shows the increase in production.

Table 11- Set of research lines on teacher evaluation

	Line	Total	Documents
Consolidated	1. Teacher evaluation	19	[1][7][9][11][20][29][31][37][40][50][57][58][68][70][72][83][84][86][94]
	2. Evaluation proposals	16	[3][14][24][51][53][56][60][63][64][69][71][75][80][89][93][99]
	3. Relationship of results and associated factors	14	[2][16][18][19][22][27][32][43][44][45][52][59][87][106]
	4. Perceptions on evaluation processes	13	[4][5][15][17][28][35][36][39][65][91][92][98][105]
	5. Quality of evaluations	10	[6][8][10][13][30][49][62][82][85][101]
Emergent	1. Use and interpretation of results	7	[12][21][25][77][96][103][104]
	2. Evaluations carried out by superiors	3	[23][48][95]
	3. Effect of evaluations	3	[34][55][61]
	4. Conditions of added value for teachers	2	[46] [66]
	5. Participation of teachers in their evaluation	1	[54]
	Total	88	documents

Source: Authors

Figure 5- Development of lines of research during the January 2013- June 2017 period



Source: Authors.

Most consolidated lines

Teacher evaluation

It is the line of greatest consolidation with nineteen documents. It is organized into three topics: (1) teaching evaluation [1, 29, 40, 63, 72, 83, 84], (2) evaluation of teaching traits such as knowledge, skills or attitudes of the teacher [7, 31, 37, 59, 58, 94] and (3) teacher evaluation by students, from a perspective similar to customer / user satisfaction [9, 11, 20, 50, 68].

Relationship of results and associated factors

There are 14 works that analyze associated factors with some form of impact on the results of the teacher evaluations made by the students; to mention a few, among these is the point at the school cycle in which the evaluation is carried out [43], the size of the groups [52], the duration of the evaluation [44], the characteristics of the students who evaluate [18], the results in learning [19, 22, 106] or the teacher's characteristics [2, 27, 32].

Perceptions on evaluation processes

It includes works on the perception of students [28, 105] and of teachers on teacher evaluation from a student satisfaction approach [4, 5, 17, 35, 92, 98]. In this line we also identified a study that evaluates the opinions of teachers about on school failure; although the authors propose it as an evaluation, it was classified in this category because it is about teachers' opinions [91].

Quality of evaluations

The works analyze the quality of the evaluations concerning the application conditions and the psychometric characteristics of the instruments of evaluation of teachers by the students. Validity, reliability [6, 13, 30, 49], bias [85] and the application of theories of client satisfaction to evaluation [8] are analyzed.

Evaluation proposals

A set of works proposes methods, techniques, tools and theories to evaluate teachers. The use of questionnaires [51, 53], portfolios [56] and rubrics [75] are proposed as evaluation instruments. Methods incorporating networks for algorithmic calculations and evaluation [63] are included, that incorporate hierarchical process analysis, decision making [71], analysis of relationships and interactions between teachers and students by identifying gaps [89], observation [93], training for co-evaluation based on criteria [75], self-evaluation [3], comparison of scales for teacher evaluation [24] and evaluation of practices through data mining [64]. From an evaluative perspective, the phenomenological [60] and evaluation with a formative approach [14], are included.

Emergent lines

Five emergent research lines on teaching evaluation were found. Interpretation of results reviews meanings teachers give to the results of evaluations and the effect on the social perception of the teachers from the results of the evaluations carried out by students.

Effect of evaluations analyzes the impact or effect of evaluations on various aspects; for example, on the improvement of the teaching practice [55, 61] or the teachers' reflection [34]. There were also works that analyzed evaluations carried out by superiors and the participations of the teachers on the evaluation process.

Conclusions

Mapping allows the reader to establish their own exploration routes according to their own research interests; this represents a general orientation in the literature selection process for a more in-depth review. However, this study is circumscribed by two elements. A first limitation is the units of analysis; since we worked with metadata and abstracts, it is not possible to offer details of the findings of each work carried out by the researchers. The second limitation is the source from which the analyzed works were obtained, because although Scopus and WOS are indexes that house the high-quality research production in the world, there is a wider universe of production on the evaluation of teachers, mainly in Latin America, where teacher evaluation systems are still under constant review and discussion by research communities. Likewise, the normative and educational policy documents disseminated by governments have been excluded from this analysis.

On the other hand, the main strength of the mapping methodology is the possibility of having a general panorama in an accessible format over a vast production. Thus, the contribution of the mapping is the ordered presentation of a panoramic view of the scientific production on teacher evaluation published in the 2013-2017 five-year period, in high-impact journals, which offers the interested reader a synthesis of the main global production.

Significant differences were found in the volume of production in English, in relation to other languages. There were also differences in the amount of production on the topic generated in the different countries of the world. The United States is the country that makes the largest number of contributions; however, countries like Belgium and Australia seem to have more impact on the number of citations in the scholarly scientific community of teacher evaluation. It must be pointed out that the three outstanding countries have educational systems with high autonomy in their operation (OECD, 2013a, 2013b, 2013c). This data may indicate new study goals that could link together the interests on the topic with the ways of conducting teacher evaluation and the interests of research in specific contexts.

There is an underdevelopment of the lines of research that associate the evaluation of teachers with the training and professionalization of teaching or with the use given to the results of evaluations. Even works that present novel proposals for teacher evaluation do not seem to express an approach that clearly identifies with these purposes.

The scientific production on teacher evaluation in the period reviewed has focused on teacher evaluation from the perspective of the students, so there is a difference between the type of evaluation documented in the research and the evaluations carried out by the countries of America and Europe. The actions in the research in the field of evaluation seem to leave aside the recommendations of authors such as Warring (2015), Ávalos (2007) or Vaillant (2008), who point out the need to consider the results of evaluations only when they meet criteria of quality and reorient the evaluation for training purposes.

This mapping on teacher evaluation indicates that the difficulties identified by the scholars of the field are still valid in the development of evaluation processes. The topics identified in the literature classification confirm that the main difficulty of teacher evaluation continues to be the technical quality of the instruments and processes, which had already been expressed by Mateo (2000). This relationship between the literature and the analysis of researchers' interests indicates that quality remains an issue not yet overcome.

The present work represents, thus, an invitation to identify areas of opportunity in the teaching evaluation in specific fields of teaching work such as multimodal, distance, or b-learning environments, or massive open courses, and the study not only of the actors, but also of the very management and impact found around these processes.

Chart 1- Mapped production

[1]	BERK R.A. Top five flashpoints in the assessment of teaching effectiveness. Medical Teacher , v. 35. n. 1. p. 15-26, 2013.
[2]	BIANCHINI S., LISSONI F., PEZZONI M. Instructor characteristics and students' evaluation of teaching effectiveness: Evidence from an Italian engineering school. European Journal of Engineering Education , v. 38. n. 1. p. 38-57, 2013.
[3]	BRAND M.W., EKAMBARAM V., TUCKER P., AGGARWAL R. Residents as teachers: Psychiatry and family medicine residents' self-assessment of teaching knowledge, skills, and attitudes. Academic Psychiatry , v. 37. n. 5. p. 313-316, 2013.
[4]	BURDEN P. Teacher perceptions of the introduction of student evaluation of teaching in Japanese tertiary education. Enhancing Learning and Teaching Through Student Feedback in Social Sciences , p. 145-169, 2013.
[5]	CEKIC O. Evaluation of teacher candidates' views on scientific research methods. Anthropologist , v. 16. n. 3. p. 595-603, 2013.
[6]	DODEEN H. Validity, reliability, and potential Bias of short forms of students' evaluation of teaching: The case of UAE university. Educational Assessment , v. 18. n. 4. p. 235-250, 2013.
[7]	ELANNANI H. Evaluation of teachers for the 21st century training project. International Education Studies , v. 6. n. 3. p. 48-54, 2013.
[8]	KIM B.J., OTANI K., CHO J.-I.L. Customer Satisfaction Theory in Public Administration Education: Revisiting Student Evaluation of Teaching. International Journal of Public Administration , v. 36. n. 11. p. 791-797, 2013.
[9]	MATUICHUK M., DA SILVA M.C. Evaluation of teachers by students in the improvement of institutional performance: UTFPR/SIAVI [Avaliação do docente pelo discente na melhoria do desempenho institucional: UTFPR/SIAVI]. Ensaio , v. 21. n. 79. p. 323-348, 2013.
[10]	PANG J., LIU X. A study on the quantitative analysis and evaluation of teaching quality for higher education institutions. World Transactions on Engineering and Technology Education , v. 11. n. 2. p. 57-63, 2013.
[11]	REZAC M., CIHLAROVA D., STANKOVA H. Assessment of teaching results at technical university. IEEE GLOBAL ENGINEERING EDUCATION CONFERENCE (EDUCON), 2013. IEEE global... [S. l.: s. n.], 2013. p. 247-252.
[12]	SABRI D. Student evaluations of teaching as 'fact-totems': The case of the UK national student survey. Sociological Research , Online. v. 18. n. 4, 2013.
[13]	SPOOREN P., BROCKX B., MORTELMANS D. On the Validity of Student Evaluation of Teaching: The State of the Art. Review of Educational Research , v. 83. n. 4. p. 598-642, 2013.
[14]	TINOCA L., OLIVEIRA I. Formative assessment of teachers in the context of an online learning environment. Teachers and Teaching: Theory and Practice , v. 19. n. 2. p. 221-234, 2013.

[15]	UZUNBOYLU H., HURSEN C. Evaluation of teachers' attitudes and perceptions of competence regarding lifelong learning [Evaluacija nastavničkih stavova i poimanja kompetentnosti u pogledu cjeloživotnog učenja]. Croatian Journal of Education , v. 15. n. Spec. Ed. 3. p. 177-204, 2013.
[16]	VASCONCELOS F.H.L., DA SILVA T.E.V., DE ALMEIDA A.L.F., MOTA J.C.M., ANDRIOLA W.B. Multilinear decomposition application into students' evaluation of teaching effectiveness. IEEE GLOBAL ENGINEERING EDUCATION CONFERENCE (EDUCON). IEEE global... [S. l.: s. n.], 2013. p. 910-916.
[17]	CHAN C.K.Y., LUK L.Y.Y., ZENG M. Teachers' perceptions of student evaluations of teaching. Educational Research and Evaluation , v. 20. n. 4. p. 275-289, 2014.
[18]	CHOI B.-K., KIM J.-W. The influence of student and course characteristics on monotonic response patterns in student evaluation of teaching in South Korea. Asia Pacific Education Review , v. 15. n. 3. p. 483-492, 2014.
[19]	CHRISTIAENS W., SPOOREN P., MORTELMANS D., VAN LOON F.J.A. Students' perceptions of learning, course grades, and student evaluation of teaching: An empirical analysis. International Journal of Assessment and Evaluation , v. 20. n. 3. p. 13-21, 2014.
[20]	ELVIRA CARPINTERO M., CORAL GONZÁLEZ B., DIANA CABEZAS G. Comprehensive assessment of teachers. Profiles of teachers regarding their perception of the assessment [Evaluación integral en docentes. Perfiles de docentes con respecto su percepción de la evaluación]. Estudios Pedagógicos , v. 40. n. 1. p. 61-74, 2014.
[21]	FERNÁNDEZ B.C. Meanings given to the assessment of teaching and learning. interpretation from a group of physical education teachers [Significados otorgados a la evaluación de la enseñanza y el aprendizaje. interpretación a partir de un grupo de maestros de educación física]. Estudios Pedagógicos , v. 40. n. 2. p. 65-82, 2014.
[22]	GRIFFIN T.J., HILTON III J., PLUMMER K., BARRET D. Correlation between grade point averages and student evaluation of teaching scores: taking a closer look. Assessment and Evaluation in Higher Education , v. 39. n. 3. p. 339-348, 2014.
[23]	HARRIS D.N., SASS T.R. Skills, productivity and the evaluation of teacher performance. Economics of Education Review , v. 40. p. 183-204, 2014.
[24]	HUYBERS, T Student evaluation of teaching: the use of best-worst scaling. Assessment & Evaluation in Higher Education , v. 39. n. 4. p. 496-513, 2014.
[25]	JONES J., GAFFNEY-RHYS R., JONES E. Handle with care! An exploration of the potential risks associated with the publication and summative usage of student evaluation of teaching (SET) results. Journal of Further and Higher Education , v. 38. n. 1. p. 37-56, 2014.
[27]	MORI S., TANABE Y. Influence of instructor personality on student evaluation of teaching: A comparison between english majors and non-english majors. English Language Teaching , v. 8. n. 1, 2014.
[28]	POWELL N.J., RUBENSTEIN C., SAWIN E.M., ANNAN S. Student evaluations of teaching tools a qualitative examination of student perceptions. Nurse Educator , v. 39. n. 6. p. 274-279, 2014.
[29]	RICHARDSON J., GROSE J., DOMAN M., KELSEY J. The use of evidence-informed sustainability scenarios in the nursing curriculum: Development and evaluation of teaching methods. Nurse Education Today , v. 34. n. 4. p. 490-493, 2014.
[30]	SPOOREN P., MORTELMANS D., CHRISTIAENS W. Assessing the validity and reliability of a quick scan for student's evaluation of teaching. Results from confirmatory factor analysis and G Theory. Studies in Educational Evaluation , v. 43. p. 88-94, 2014.
[31]	TERRÓN A.M., YAPO W.Q. Assessment of teacher's competences in mathematical teachers of Puno (Perú) [Evaluación de las "competencias docentes" en maestros de matemáticas de puno (Perú)]. Profesorado , v. 18. n. 1. p. 257-278, 2014.
[32]	TSAMAKIS K., TOUMANIDIS S., NIKITEAS N., SFIKAKIS P.P. Personal characteristics may affect evaluation of teaching: A prospective study in medical students. Medical Teacher , v. 36. n. 1. p. 86-, 2014.
[34]	WINCHESTER T.M., WINCHESTER M.K. A longitudinal investigation of the impact of faculty reflective practices on students' evaluations of teaching. British Journal of Educational Technology , v. 45. n. 1. p. 112-124, 2014.
[35]	WONG W.Y., MONI K. Teachers' perceptions of and responses to student evaluation of teaching: purposes and uses in clinical education. Assessment and Evaluation in Higher Education , v. 39. n. 4. p. 397-411, 2014.
[36]	ABACI, O An evaluation of teacher candidates' opinions about art education and form-meaning relationship. INTERNATIONAL CONFERENCE ON NEW HORIZONS IN EDUCATION (INTE), 2014. v. 174. Anais... [S. l.: s. n.], 2015. p. 1791-1797.
[37]	AKINYEMI F.O. Technology use in Rwandan secondary schools: an assessment of teachers' attitudes towards geographic information systems (GIS). International Research in Geographical and Environmental Education , 2015.

[39]	ATAIZI M. Communication education: Student perceptions and evaluations of teaching and learning quality. Turkish Online Journal of Educational Technology , v. 2015. p. 104-107, 2015.
[40]	BHARADWAJ A.K. An evaluation of teaching theoretical graduate engineering courses adapting different techniques. IEEE INTERNATIONAL CONFERENCE ON MOOCS, INNOVATION AND TECHNOLOGY IN EDUCATION (IEEE MITE 2014). Anais... [S. l.: s. n.], 2015.p. 84-88.
[43]	DENNISON C.R., BUTZ R., SHAWN FUHRER R., CAREY J.P. Comparison of student evaluation of teaching results when stratified by protocol, course content, and course structure. International Journal of Engineering Education , v. 31. n. 6. p. 1476-1490, 2015.
[44]	ESTELAMI, H. The Effects of Survey Timing on Student Evaluation of Teaching Measures Obtained Using Online Surveys. Journal of Marketing Education , v. 37. n. 1. p. 54-64, 2015.
[45]	FAWAD H., MANARVI I.A. Student feedback & systematic evaluation of teaching and its correlation to learning theories, Pedagogy & Teaching skills. IEEE INTERNATIONAL CONFERENCE ON TEACHING, ASSESSMENT AND LEARNING FOR ENGINEERING: LEARNING FOR THE FUTURE NOW, TALE 2014. Proceedings... [S. l.: s. n.], 2015. p. 398-404.
[46]	GANSLE K.A., NOELL G.H., GRANDSTAFF-BECKERS G., STRINGER A., ROBERTS N., BURNS J.M. Value-Added Assessment of Teacher Preparation: Implications for Special Education. Intervention in School and Clinic , v. 51. n. 2. p. 106-111, 2015.
[48]	LAPOINTE, JR; GUILLEMETTE, F The evaluation of teaching practicums by supervisors in schools. Revue des Sciences de L'Education , v. 41. n. 2. p. 199-217, 2015.
[49]	MITTAL S., GERA R., BATRA D.K. Evaluating the validity of student evaluation of teaching effectiveness (SET) in India. Education and Training , v. 57. n. 6. p. 623-638, 2015.
[50]	MORÁN R., CARDOSO E.O., CERECEDO M.T., ORTÍZ J.C. Evaluation of teaching skills of teachers graduated from institutes of higher education in México. The case of the subject technology in the secondary school [Evaluación de las competencias docentes de profesores formados en instituciones de educación superior: El caso de la asignatura de tecnología en la enseñanza secundaria]. Formación Universitaria , v. 8. n. 3. p. 57-64, 2015.
[51]	MORENO-MURCIA, JA; TORREGROSA, YS; PEDRENO, NB Questionnaire evaluating teaching competencies in the university environment. Evaluation of teaching competencies in the university. Journal of New Approaches in Educational Research , v. 4. n. 1. p. 54-, 2015.
[52]	PALMER S., HALL W. The impact of increasing course enrolment on student evaluation of teaching in engineering education. Australasian Journal of Engineering Education , v. 20. n. 1. p. 31-40, 2015.
[53]	RUPRICH, C; URHAHNE, D Development of a questionnaire for the assessment of teacher goals from a content perspective. International Journal of Educational Research , v. 72. p. 173-184, 2015.
[54]	WANG, DH; WANG, WJ Rethink on the Students' Evaluation of Teaching in Higher Vocational Colleges. INTERNATIONAL CONFERENCE ON CREATIVE EDUCATION, 2., 2015 (ICCE 2015). Proceedings... v. 11. pt. 2. [S. l.: s. n.], 2015. p. 155-160.
[55]	WARMAN S.M. Challenges and issues in the evaluation of teaching quality: How does it affect teachers' professional practice? A UK perspective. Journal of Veterinary Medical Education , v. 42, n. 3. p. 245-251, 2015.
[56]	WICKS D., LUMPE A. Electronic portfolios as pedagogy: Using Portfolios for authentic assessment of teacher knowledge and skills in the U.S. Advances in Research on Teaching , v. 22c, p. 219-232, 2015.
[57]	YANG, RH; SUN, XD Implementation and evaluation of teaching of College English. 2015 INTERNATIONAL CONFERENCE ON SOCIAL SCIENCE AND TECHNOLOGY EDUCATION (ICSSTE 2015). Proceedings of the... v. 18. [S. l.: s. n.], 2015. p. 450-452.
[58]	YUKSEL, M; GEBAN, O Evaluation of Teacher Performance According to the Special Area Competencies of Chemistry Teachers. Hacettepe Universitesi Egitim Fakultesi Dergisi-Hacettepe University Journal of Education , v. 30. n. 1. p. 299-312, 2015.
[59]	AL KUWAITI, A; ALQURAAAN, M; SUBBARAYALU, AV Understanding the effect of response rate and class size interaction on students evaluation of teaching in a higher education. Cogent Education , v. 3. 2016.
[60]	ASHKAN M. The phenomenological evaluation of teaching professionalism in the architecture design studio culture: A case at the University of Kansas. Archnet-IJAR , v. 10. n. 1. p. 41-61, 2016.
[61]	BARROW M., GRANT B.M. Changing mechanisms of governmentality? Academic development in New Zealand and student evaluations of teaching. Higher Education , v. 72. n. 5. p. 589-601, 2016.

[62]	BRABECK M.M., DWYER C. A., GEISINGER K.F., MARX R.W., NOELL G. H., PIANTA R.C., SUBOTNIK R. F., WORRELL F. C. Assessing the Assessments of Teacher Preparation. Theory Into Practice , v. 55. n. 2. p. 160-167, 2016.
[63]	CHENG, JT; XIONG, Y. Research on the Evaluation of Teaching Quality Based on CGSAB. INTERNATIONAL CONFERENCE ON EDUCATION, MANAGEMENT SCIENCE AND ECONOMICS (ICEMSE 2016). Proceedings of the... [S. l.: s. n.], v. 65. 2016. p. 318-320.
[64]	DE PAULA SANTOS F., LECHUGO C. P., SILVEIRA-MACKENZIE I. F. 'Speak well' or 'complain' about your teacher: A contribution of education data mining in the evaluation of teaching practices. INTERNATIONAL SYMPOSIUM ON COMPUTERS IN EDUCATION (SIEE 2016): Learning Analytics Technologies, 2016. International... [S. l.: s. n.], 2016.
[65]	DHAKAL R.K., PANT B. P. Assessment of teacher education curricula in Nepal: An ICT perspective. International Journal of Innovation, Creativity and Change , v. 2. n. 3. p. 96-107, 2016.
[66]	EVANS C.M., LEE J. C. Value-added assessment of teacher preparation programs in the United States: a critical evaluation. Assessment in Education: Principles, Policy and Practice , p. 1-21. 2016.
[68]	GÓMEZ-ARIZAGA M. P., CONEJEROS-SOLAR M. L., MARTIN A. How Good Is Good Enough? A Community-Based Assessment of Teacher Competencies for Gifted Students. SAGE Open , v. 6. n. 4, 2016.
[69]	GORBANEFF Y. Is student evaluation of teacher a wrong incentive? Profesorado , v. 20. n. 2. p. 424-431, 2016.
[70]	GUTIÉRREZ-ESTEBAN P., YUSTE-TOSINA R., ARIAS-MASA J., CUBO-DELGADO S., ALONSO-DÍAZ L. Evaluation of teaching design in synchronous virtual classrooms. International Journal of Continuing Engineering Education and Life-Long Learning , v. 26. n. 1. p. 72-89, 2016.
[71]	HAN, ZH; ZHAO, J. H. Application of AHP in the evaluation of teaching quality in Independent Colleges. INTERNATIONAL CONFERENCE ON SOCIAL SCIENCE, EDUCATION AND HUMANITIES RESEARCH, 5., 2016. Proceedings of... v. 69. [S. l.: s. n.], 2016. p. 1047-1051.
[72]	HARAHAP, J. Evaluation of Teaching Methods in the Individual and Team. INTERNATIONAL CONFERENCE ON EDUCATIONAL, MANAGEMENT, ADMINISTRATION AND LEADERSHIP, 6., 2016 (6TH ICEMAL 2016). v. 14. Proceedings of the... [S. l.: s. n.], 2016. p. 256-258.
[75]	NEWMAN, LR; BRODSKY, D; JONES, R. N; SCHWARTZSTEIN, RM; ATKINS, KM; ROBERTS, D. H. Frame-of-Reference Training: Establishing Reliable Assessment of Teaching Effectiveness. Journal of Continuing Education in the Health Professions , v. 36. n. 3. p. 206-210, 2016.
[77]	PAIXÃO R. B., DE ALMEIDA B. C. Student's assessment of teachers: Perception analysis of ideal and effective use [Avaliação do Docente pelo Discente: Análise das percepções de utilização ideal e efetiva]. Meta: Avaliação , v. 8. n. 22. p. 48-68, 2016.
[80]	ROMERA, DDM; ROBLES, DC; DE LA SERNA, M. C. Assessment of teaching skills with e-Rubrics in Master of Teacher Training. Journal for Educators Teachers and Trainers , v. 7. p. 121-141, 2016.
[82]	SETARI A.P., LEE J., BRADLEY K.D. A psychometric approach to the validation of a student evaluation of teaching instrument. Studies in Educational Evaluation , v. 51. p. 77-87, 2016.
[83]	WANG, Y; LI, J. Study on the Evaluation of Teaching Quality of College Teachers with Undergraduate Students as Study Samples. INTERNATIONAL CONFERENCE ON APPLIED SOCIAL SCIENCE RESEARCH, 3., 2016. Proceedings of the... v. 105. [S. l.: s. n.], 2016. p. 456-459.
[84]	WANG, Y; ZHU, Z. F. Study on the Evaluation of Teaching Quality of College Teachers with Graduate Students as Study Samples. INTERNATIONAL CONFERENCE ON APPLIED SOCIAL SCIENCE RESEARCH, 3., 2016. v. 105. Proceedings of the... v. 105. [S. l.: s. n.], 2016. p. 460-463.
[85]	WOLBRING T., TREISCHL E. Selection Bias in Students' Evaluation of Teaching: Causes of Student Absenteeism and Its Consequences for Course Ratings and Rankings. Research in Higher Education , v. 57. n. 1. p. 51-71, 2016.
[86]	XIANG, F. The Research on the Evaluation of Teaching Effect in Foreign Teachers' Language and Professional Classes. INTERNATIONAL CONFERENCE ON MANAGEMENT, EDUCATION, INFORMATION AND CONTROL, 6., 2016 (MEICI 2016). v. 135. Proceedings of the... [S. l.: s. n.], 2016. p. 534-539.
[87]	ZHANG, LP; LIU, XX. Analyzing the Factors Influencing Students' Evaluation of Teaching Quality in College English Classes through Partial Correlation Analysis. 2016 2ND INTERNATIONAL CONFERENCE ON SOCIAL SCIENCE AND DEVELOPMENT, 2., 2016 (ICSSD 2016). [S. l.: s. n.], 2016. p. 55-59.
[89]	AHN H., CLERMONT M., HÖFER-DIEHL Y. Performance evaluation of teaching in higher education: A gap model and its application. International Journal of Public Sector Performance Management , v. 3. n. 2. p. 119-147, 2017.
[91]	BASARI S. Evaluation of teachers' opinions regarding the causes of the School Failure of adolescents'. Ponte , v. 73. n. 6. p. 145-162, 2017.

[92]	BISINOTO C., ALMEIDA L.S. Teacher's perceptions about quality evaluation of teaching in higher education [Percepções docentes sobre avaliação da qualidade do ensino na educação superior]. Ensaio , v. 25. n. 96. p. 652-674, 2017.
[93]	DE JAGER T., COETZEE M. J., MAULANA R., HELMS-LORENZ M., VAN DE GRIFT W. Profile of South African secondary-school teachers' teaching quality: evaluation of teaching practices using an observation instrument. Educational Studies . p. 1-20, 2017.
[94]	ECEVIT T., ŞİMŞEK P. Ö. The evaluation of teachers' science concept teaching and their action to diagnose and eliminate misconceptions [Öğretmenlerin fen kavram öğretimleri, kavram yanlışlarını saptama ve giderme çalışmalarının değerlendirilmesi]. Elementary Education Online , v. 16. n. 1. p. 129-150, 2017.
[95]	GRISSOM J.A., LOEB S. Assessing principals' assessments: Subjective evaluations of teacher effectiveness in low-and high-stakes environments. Education Finance and Policy , v. 12. n. 3. p. 369-395, 2017.
[96]	HAMMONDS F., MARIANO G. J., AMMONS G., CHAMBERS S. Student evaluations of teaching: improving teaching quality in higher education. Perspectives: Policy and Practice in Higher Education , v. 21. n. 1. p. 26-33, 2017.
[98]	KOLOI-KEAIKITSE, S. Assessment of teacher perceived skill in classroom assessment practices using IRT Models. Cogent Education , v. 4, 2017.
[99]	LA ROCCA, M; PARRELLA, ML; PRIMERANO, I; SULIS, I; VITALE, M. P. An integrated strategy for the analysis of student evaluation of teaching: from descriptive measures to explanatory models. Quality & Quantity , v. 51. n. 2. p. 675-691, 2017.
[101]	OON P.-T., SPENCER B., KAM C. C. S. Psychometric quality of a student evaluation of teaching survey in higher education. Assessment and Evaluation in Higher Education , v. 42. n. 5. p. 788-800, 2017.
[103]	PAVLOVIĆ, N. The role of social participants in the evaluation of teachers at universities in Serbia. Transylvanian Review , v. 26. n. 1. p. 74-89, 2017.
[104]	ROYAL, K. A guide for making valid interpretations of Student Evaluation of Teaching (SET) results. Journal of Veterinary Medical Education , v. 44. n. 2. p. 316-322, 2017.
[105]	SPOOREN P., CHRISTIAENS W. I liked your course because I believe in (the power of) student evaluations of teaching (SET). Students' perceptions of a teaching evaluation process and their relationships with SET scores. Studies in Educational Evaluation , v. 54. p. 43-49, 2017.
[106]	UTTIL, B; WHITE, CA; GONZALEZ, D. W. Meta-analysis of faculty's teaching effectiveness: Student evaluation of teaching ratings and student learning are not related. Studies in Educational Evaluation , v. 54. n. p. 22-42, 2017.

Fonte: Referencias recuperada en Scopus y Wos el 31 ago. 2017.

References

ÁVALOS, Beatrice. El desarrollo profesional continuo de los docentes: lo que nos dice la experiencia internacional y de la región latinoamericana. **Revista Pensamiento Educativo**, Santiago de Chile, v. 41, n. 2, p. 77-99, 2007.

BADRTDINOV, Nail; GOROBETS, Daniil. Evaluation of the effectiveness of management development institutions of higher education on the basis of the factor. **International Journal of Environmental and Science Education**, Kazan, v. 11, n. 18, p. 12167-12182, 2016.

GOODWIN, Deborah; WEBB, Mary Ann. Comparing teachers' paradigms with the teaching and learning paradigm of their state's teacher evaluation system. **Research in Higher Education Journal**, Ponte Vedra Beach, v. 25, p. 1-11, sept. 2014.

KITCHENHAM, Barbara; CHARTERS, Stuart. **Guidelines for performing systematic literature reviews in software engineering: EBSE technical report EBSE-2007-01**. Durham: Keele University; Durham University Joint Report, 2007.

LOONEY, Janet. Developong High-quality techers: teacherevaluation for improvement. **European Journal of Education**, v. 46, n. 4, p. 440-445, 2011.

MATEO, Javier. **La evaluación educativa, su práctica y otras metáforas**. Barcelona: ICE de la Universitat de Barcelona Horsori, 2000.

MURILLO, Javier. **Evaluación del desempeño y carrera profesional docente: América y Europa**. Santiago de Chile: Unesco, 2007.

OCDE - Organización para la Cooperación y Desarrollo Económico. **Evaluation and assessment frameworks**. Paris: OCDE, 2013c.

OCDE - Organización para la Cooperación y Desarrollo Económico. **Synergies for better learning: an international perspective on evaluation and assessment**. Paris: OCDE, 2013a.

OCDE - Organización para la Cooperación y Desarrollo Económico. **Teachers for the 21st Century: using evaluation to improve teaching**. Paris: OCDE, 2013b.

PELLEGRINO, James; DIBELLO, Louis; GOLDMAN, Susan. A framework for conceptualizing and evaluating the validity of instructionally relevant assessments. **Educational Psychologist**, v. 51, n. 1, p. 59-81, 2016.

PETERSEN Kai et al. Systematic mapping studies in software engineering. In: INTERNATIONAL CONFERENCE ON EVALUATION AND ASSESSMENT IN SOFTWARE ENGINEERING, 12., 2008, Swinton (EASE'08). **Proceedings of the...** Swinton: British Computer Society, 2008. p. 68-77.

SINOARA, Roberta Akemi; ANTUNES, João; REZENDE, Solange Oliveira. Text mining and semantics: a systematic mapping study. **Journal of the Brazilian Computer Society**, Porto Alegre, v. 23, n. 9, p. 7-22, 2017. DOI 10.1186/s13173-017-0058-7.

VAILLANT, Denise. Algunos marcos referenciales para la evaluación del desempeño docente en América Latina. **Revista Iberoamericana de Evaluación Educativa**, Madrid, v. 1. n. 2, p. 7-22, 2008.

WARRING, Douglas. Teacher Evaluations: Use or Misuse? **Universal Journal of Educational Research**, San Jose, v. 3, n. 10, p. 703-709, 2015.

Received on September 22nd 2017

Modified on November 16th 2017

Approved on January 29th 2018

Claudia Navarro Corona has a PhD in Educational Sciences from the Instituto de Investigación y Desarrollo Educativo de la Universidad Autónoma de Baja California (IIDE-UABC), Mexico. She is a professor-researcher at the School of Humanities and Education of the Tecnológico de Monterrey. She is a member of the National System of Researchers (SNI), in Mexico and a member of the Mexican Council of Educational Research (COMIE). Her line of research is

educational management.

María Soledad Ramírez Montoya is a professor-researcher at the School of Humanities and Education of the Tecnológico de Monterrey. She is the coordinator of the Research and Innovation in Education Group of the Tecnológico de Monterrey, director of the office of International Council for Open and Distance Education (ICDE) and director of the Open Educational Movement for Latin America UNESCO Chair.