

Contribution of scientific journals to the construction of teacher training policies in Portugal

Contribución de las revistas científicas a la construcción de políticas de formación para el profesorado en Portugal

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Abstract

Scientific journals are instruments for disseminating advances in knowledge both to the academic community and to society. The results collected in these publications have to be transferred to society through a dialogue between experts, politicians and society. Based on the importance of scientific journals on the dissemination of educational topics, the aim of this work is to verify whether these journals over the period 2011-2021 have published articles on policies and practices of teacher training and development in the educational levels of Basic Education and Secondary Education in Portugal. To achieve this objective, a mixed methodology was chosen starting from a sample of 672 articles collected in journals oriented to the study of Educational Sciences in Portugal, which are in the *Scopus* database within the field of Educational Sciences in Portugal. These will be *Revista Portuguesa de Educação* (Q4) and *Revista Lusófona de Educação* (Q3). From the analysis carried out, it was

possible to note the scarcity of publications focused on the subject under study, which translates into 46 articles, or 6.8%. In the *Revista Portuguesa de Educação* there is a greater diversity of topics, covering both teacher training and teacher development, while the *Revista Lusófona de Educação* includes studies oriented to teacher training. In this line, it is concluded that there is still a need for more studies focused on teachers at these educational levels, reaching their application both to educational institutions and to the development of stable and effective working mechanisms that can transfer such knowledge, orienting it to educational policies. However, although the production is insufficient, the relevance of these publications in terms of their contribution to the improvement of teaching practice is remarkable.

Keywords: Education policy, teacher training, teacher development, scientific journals, knowledge transfer.

Resumen

Las revistas científicas son instrumentos para dar a conocer el avance del conocimiento tanto a la comunidad académica como a la sociedad. Los resultados recogidos en estas publicaciones tienen que ser transferidos a la sociedad a partir de un diálogo entre los expertos, los políticos y la sociedad. Partiendo de la importancia de las revistas científicas sobre divulgación de temáticas educativas, el objetivo de este trabajo es verificar si estas revistas a lo largo del periodo 2011-2021 han publicado artículos sobre políticas y prácticas de formación y desarrollo docente en los niveles educativos de Enseñanza Básica y Enseñanza Secundaria en Portugal. Para alcanzar este objetivo se optó por una metodología mixta partiendo de una muestra de 672 artículos recogidos en revistas orientadas al estudio de las Ciencias de la Educación en Portugal, que se encuentran en la base de datos de *Scopus* dentro del ámbito de las Ciencias de la Educación en Portugal. Estas serán *Revista Portuguesa de Educação* (Q4) y *Revista Lusófona de Educação* (Q3). Del análisis efectuado, se pudo constatar la escasez de publicaciones centradas en la temática objeto de estudio, lo que se traduce en 46 artículos, un 6.8%. En la *Revista Portuguesa de Educação* existe una mayor diversidad de temáticas abarcando tanto la formación como el desarrollo docente, mientras que la *Revista Lusófona de Educação* recoge estudios orientados a la formación de profesores. En esta línea se concluye que, todavía se necesitan estudios más centrados en el profesorado de estos niveles educativos, alcanzando su aplicación tanto a las instituciones educativas como al desarrollo de mecanismos de trabajo estables y eficaces que puedan transferir dicho conocimiento orientándolo a las políticas educativas. No obstante, aunque la producción sea insuficiente, la relevancia de estas publicaciones en cuanto a su contribución para la mejora de la praxis docente es destacable.

Palabras clave: Políticas educativas, formación docente, desarrollo docente, revistas científicas, transferencia del conocimiento.

Introduction

Globalization has meant a real revolution in the traditional forms of scientific communication because of the rise in the digitalization process we are going through and we are a part of. In this sense, society gets access to information by the Internet, seeking for immediate results (Perales-Palacios et al, 2017; Prada et al., 2022). Such immediacy will condition the access to information. The analytical work, the discussion and the critical reflection are sometimes eroded by the culture of the immediacy we all live with. Scientific publications are even more and more published in digital format and they are spread through websites and social media (LeTendre et al., 2018; Baker & Connolly, 2018), which extends the reading and discussion of knowledge to the educational community (LeTendre et al., 2018).

These turbulent changes have conditioned the way science is perceived, forcing it to be fast, used for a specific time and space and updated so that the research is not exceeded or outdated (LeTendre et al., 2018). Not everything which is transmitted to society should be considered as science, hence the responsible for the scientific divulgation magazines must exhaustively and rigorously fulfil standards of quality, on the basis that they are a non-restricted instrument to share results, and they can influence in order to establish limits in a specific area of knowledge as well as creating the researcher's identity (LeTendre et al., 2018; Baker & Connolly, 2018).

Standards are translated into indicators of qualitative typology created by businesses and public institutions to elaborate rankings of publications, such as the *Scholarly Publishers Indicators* (SPI), promoted by the research group ILIA, which belongs to the Center of Scientific Research of Spain. Such ranking is used to assess the quality of the work of national and international editorials, especially within the field of Social Sciences and Humanities (Grupo de Investigación ILIA, 2022).

With respect to the articles, there are international rankings, for instance, the *Web of Science* (WOS) databases ones, which are currently under the direction of the Clarivate Analytics enterprise. Such enterprise, through the *Journal Citation Reports* (JCR), collects the magazines which have been positively evaluated, mainly due to their *impact factor* in terms of the number of times the manuscripts are referenced in other work (Ruiz & Valero, 2018). Other magazines that, despite being relevant,

have not had such impact in the scientific community, are excluded. The *Journal Citation Indicator* (JCI) consequently arose in 2021 to agglutinate the magazines which had not been elected by the JCR (Clarivate Analytics, 2021).

In this way, *Scopus*, from the Elsevier editorial, also has the *Scimago Journal & Country Rank*, where the number of quotes of any type of publication without considering their inclusion in this editorial is calculated. Thus, it covers a higher number of editorials (Elsevier, 2020; Scimago, 2022).

Such enterprises have conditioned the progression of teaching and researching professional (Perales-Palacios et al., 2017, Ruiz & Valero, 2018). This factor conditions the progression of the teaching and research careers (Perales-Palacios et al., 2017; Ruiz & Valero, 2018). In this line of thought, a big part of the manuscripts is published in English (Ordorika, 2018), and scientific publications written in different languages are not considered (Ordorika, 2018). This is an obstacle for the scientific community, which is idealistically considered globalized. However, it is necessary to keep on advancing so the knowledge can reach everywhere, and to avoid that research work can get restricted to the academic field (LeTendre, et al, 2018).

Also, the quotes assessed by independent evaluation committees for university professors, postdoctoral scholarships and researching projects depend on these bibliometric markers (Delgado & Fernández-Llera, 2012; Perales-Palacios et al., 2017; Ruiz & Valero, 2018), without the possibility to consider allometric indicators such as *Almetric.com*, *Facebook*, *Google Scholar*, *Mendeley*, *Plumx* or *Twitter* (Ortega, 2020). Another challenge is how to frame this knowledge within public politics, which means surpassing the disciplinary knowledge to legislation by boosting communication among the scientific community and the political parties, with the aim of correcting social inequality (Baker & Connolly, 2018).

Regarding the top education science magazines in Portugal, there are two magazines which are currently indexed in the prestigious *Scimago Journal & Country Rank* indicator: One of them is the *Revista Lusófona de Educação* magazine, founded in 2003 and sponsored by the Centro de Estudos Interdisciplinares em Educação e Desenvolvimento (CEIED) centre, which depends on the Education Institute at the Lusofona University of Lisbon, and accepts work from Education Sciences and other similar knowledge areas. Just like the *Revista Portuguesa de Educação*

magazine, it is highly consolidated, since its first number was launched in 1988, and it is sponsored by the Education Institute at the Minho University, and their orientations match. In this sense, it is necessary to highlight that there is a great diversity of published topics, with special relevance of teacher training and their professional development, as analysed above.

Teacher training and development education policies at Basic Education and Secondary Education stages in Portugal

The teacher training policies have been studied by several authors and international institutions such as the UNESCO, which, on the Delors report (1996), devoted the chapter 7 to the teachers, since their role is relevant for the students' educational processes regarding their future and to motivate them to use rigorous practices in a constantly changing globalised world. In this sense, Novoa (2009) would affirm that the 20th century is the teachers' century, putting them in the focus of education. In the same line, Thompson (2021) makes also reference to the importance of teachers to build up sustainable and inclusive societies, so this one must be an attractive and recognised profession that works with the most innovative and involved ones. In this sense, teacher training at all educational stages will be essential to improve the competence level of these professionals of education.

Initial training

There are two documents which were decisive and emblematic when it comes to talk about the initial teacher training in Portugal during the period 2011 and 2021. Hence, the Decreto-Lei 43/2007, de 22 de fevereiro (complimented by the Decreto-Lei 220/2009, de 8 de setembro) is considered as a hit, since it starts the restructuring of the initial training, derived from the exigences brought by the Bologna process.

It is noteworthy that as of the application of this legal disposition, the professional qualification for teaching turned into a master's degree, and the learning model was reorganised into two educational tiers (bache-

lor's degree and professional master's degree for teaching), for all educational tiers. In the case of Preschool education and of the first and second tier, it will be considered as a generalist and transversal training which starts with the bachelor's degree in Basic Education, as well as a master's degree in the respective area (Bonifácio & Ibraimo, 2021).

For the rest of the teaching levels, this requirement consisted of the appropriate bachelor's degree and master's degree for the respective education areas. The number of credits required was estimated according to the training received. This educational model was associated with the general professional profile (Decreto-Lei n° 240/2001, de 30 de agosto) of educators and childhood and of Basic Teaching and Secondary Teaching, which listed some common reference points for professional training, regardless of the educational level in which each person wanted to get certified and that mentioned four formative dimensions:

- i) Professional, social and ethical dimension; ii) Development of teaching and learning dimension; iii) Professional development through life dimension; iv) Participation in the school and relationship with the community dimension (pp. 5569-5572)¹.

In this document, apart from the contents and their respective programs, the planning of courses in initial training should be included. In the preamble the importance of a solid training of teachers from public, private and cooperative teaching was highlighted, explaining that

the challenge of Portuguese teachers' training asks for a quality teaching staff, increasingly better qualified (...) the new attribution and accreditation system for teaching places value on the knowledge strands, the practical argument of teaching in researching and the practical professional initiation. Furthermore, the mastery of oral and written skills in Portuguese as common criteria to train teachers is required (...) such assessment translates into the definition of the required credits, not only for the training of the teacher of the discipline but also for the general teachers, both as a requirement to access the masters, the qualitative adequacy of these credits², the responsibilities of the teaching (pp. 1320-1321)³.

¹ Original translation by the authors.

² The credits aimed at facilitating the comparison of programmes and titles within the European context. Each credit corresponds on average to 25-30 hours of student work.

³ Original translation by the authors.

Afterwards, the Decreto-Lei 79/20014, de 14 de maio decree derogates the earlier legislation and highlights as general principles the need to foster the qualification of teachers' training and intends to:

- Restructure the two-cycle education model (degree and master's degree)
- Increase the duration of the second cycle of studies.
- Deepening of knowledge in scientific areas
- Require the mastery of oral and written skills in Portuguese language and the fundamental rules of logic argumentation and critical thinking.

It is relevant to emphasise the importance of increasing the general level of teachers' training, since

It tends to have a measurable and very significant effect on the quality of the education system (...) the depth of teachers' knowledge on the specific topics they teach has a great influence in their autonomy and self-esteem in the class, which translates into a higher quality of students' learning process (pp. 2819- 2820)⁴.

Apparently, structural changes had not been made in this new training model, that is, it was supposed to maintain the accumulative requirement of the bachelor's degree and the master's degree in education for the access to the teaching profession. However, changes in teaching and didactic area, in which structural changes were defined, became evident. Moreover, an increase in the number of credits for such knowledge was established, especially in the master's degree in pre-school education and in first-cycle teaching (which requires 60-90 credits) and the master's degree which enables for both pre-school education and first-cycle education (which requires 90-120 credits). The reading of the title still shows big differences in terms of the training hours within general education, with a minimum of 6 credits for all education levels, except for the third cycle of Basic Education and Secondary Education, where the requirement changes to 18 credits, which, in practice, translates into many training hours. Overall, training for teachers with the requirements shown in the following chart was established.

⁴ Original translation by the authors.

TABLE I. Formational requirement of professional master's degrees for teachers

MASTER'S COURSES					
Master's degree	Number of credits	General educational area	Specific didactics	Teaching area	Monitored teaching practice
Pre-school Education	90	≥ 6 credits	≥ 24 credits	≥ 6 credits	≥ 39 credits
1 stage of Basic Education	90	≥ 6 credits	≥ 21 credits	≥ 18 credits	≥ 32 credits
Pre-school Education and 1 stage of Basic Education	120	≥ 6 credits	≥ 36 credits	≥ 18 credits	≥ 48 credits
1 and 2 stages of Basic Education	120	≥ 6 credits	≥ 30 credits	≥ 27 credits	≥ 48 credits
3 stage of Basic Education and Secondary Education	120	≥ 18 credits	≥ 30 credits	≥ 18 credits	≥ 42 credits

Source: Compiled by author starting from the Decreto-Lei 79/2014, p. 282 decree.

Continued training

According to the Legal Framework for Teachers' Continuous Professional Development set out in the Decreto-Lei nº 22/2014, de 11 de fevereiro decree, as well as in other subsequent legislative documents, this teaching modality aims at improving the quality of the teacher development of active practitioners, by focusing on the identified priorities in educational centres, and it is closely tied to the objectives stated by educational policies.

In such cases, article 5 lists the following continued training areas:

Teaching area, that is, those knowledge fields which are curricular subjects at different educational levels; b) Pedagogical and teaching approaches, that is, training in the field of classroom organization and management; c) General pedagogical training and educational organizations; d) School management and educational management; e) School management, coordination and supervision; f) Ethical and deontological training; g) Information and communication technologies applied to specific didactic or to school management (p. 1287)⁵.

⁵ Original translation by the authors.

These training fields can be implemented based on the modalities provided by article 6, namely: a) Training courses; b) Training workshops; c) Study circles; d) Short-term actions (p.1287).

It is important to point out the assessment of the teaching development, which intends to facilitate the progression of teaching careers, and demands that “the continued training component should be at least 50% focused on the scientific and pedagogical dimension, and at least four fifths of such training should be accredited by the “CCPFC”⁶ (p. 1288).

Professional teacher development

Educational policies defined by the different European governments are, as a rule, coherent with the idea of increasing the teaching level and the students’ learning. In the case of Portugal, the Ministry of Education has tried to fit this design by doing different legislative changes and, because of that, two changes in the model of initial teacher training have been produced in less than ten years, arguing that

The best practices and the wide amount of research and international data collected on this subject matter show the importance of initial teacher training and its need to be very exigent, especially in terms of knowledge of the subjects of the teaching area and their respective didactics⁷ (Decreto-Lei 79/2014, p. 2819).

In order to recognise the importance of this training stage, it is equally important that professional development combines several personal and professional factors (continued training, conditions and environment in the work context, career progression, the construction of the professional identity, ethical and deontological dispositions, social recognition, etc). Therefore, the teaching profession is full of exigences (scientific, pedagogical, human, institutional and social ones), and this is also compound by the fact that world has recently focused on the dependence of teachers and education systems (Thompson,2021).

Overall, it can be said that the professional development included the previously mentioned aspects, but also the teachers’ commitment as

⁶ Conselho Científico-Pedagógico da Formação Contínua.

⁷ Original translation by the authors.

relevant actors in the generation of knowledge and the continuous update of their knowledge. This explains the relevance of scientific publications, whether because of the reflection and the knowledge that allow its reading, or because of the civic participation of teachers as authors and builders of their profession. Thus, the analysis of the main publications in Portugal aims at verifying the scientific production concerning teacher training.

Objectives

These five magazines appear on the last *Scimago Journal & Country Rank* (SJR) indicator, from April 2022, when the variables “Education” and “Portugal” are chosen: *Análise Psicológica* (Q4) *Currículo sem Fronteiras* (Q3), *Boletim de Estudos Clássicos* (Q4), *Revista Lusófona de Educação* (Q3), *Revista Portuguesa de Educação* (Q4). Nonetheless, there is no transversality of studies based on Sciences of Education in the three first publications. In the case of the first one, despite there is a Portuguese flag on the indicator, when the website of the magazine is consulted, one can see that its editors are the *Associação Brasileira de Currículo* association, whereas the other two are focused on General Psychology and on Educational Psychology, as well as on Didactics and History of Greco-Roman World.

In this sense, the *Revista Portuguesa de Educação* and the *Revista Lusófona de Educação* magazines were chosen. Both are two referential publications within the Portuguese educational environment, since they currently appear on the *Scimago Journal & Country Rank* indicator.

This general objective was broken down into the following specific objectives:

- To identify the numbers or volumes and to verify the number of publications related to teacher training and development in that period.
- To compare the frequency of publication of articles on the subject matter in both publications.
- To analyse and interpret the topics that have emerged in the published numbers.
- To value their relevance in the published numbers of the magazines depending on their content.

Method

Sample

The *Revista Portuguesa de Educação* has published a total of 253 articles from 2011 to 2021, whereas the *Revista Lusófona de Educação* has published a total of 419. On the first, 14 (5.5%) were articles related to training, including basic training, continued training, as well as thematic areas focused on the teaching development in Basic Teaching and Secondary Teaching levels, with a total of 32 articles (5.5) published in the *Revista Lusófona de Educação* magazine. However, together both magazines featured a total number of 672 articles, from which 46 (6.8%) were focused on the subject matter. This fact is translated into a weak monitoring on the thematic fields of current teachers' training and professional development policies of teachers in Portugal.

Instruments

The already-mentioned magazines, indexed in the database of *Scopus*, were the main sources of this research. Hence their relevance to study different education themes which approached the curriculum, the methodologies, experiences in the class, education models from both national and international scene, highlighting mainly articles from Brazil, Spain and Portugal.

Among the different contents, the focus was set on the policies and practices of teacher training and development at Basic Teaching and Secondary Teaching levels in the luse country during the last decade, by analysing the main themes and the interest on the frequency of articles published by the academic community.

Process

The procedure was set by searching at the “Online knowledge Library”, promoted by the Technology and Science Foundation, which is under the Government of Portugal. This research resulted in finding magazines such as the *Revista Portuguesa de Pedagogia, Educação, Sociedade &*

Cultura, *Revista Portuguesa de Investigação Educacional*, *Análise Psicológica*, *Currículo sem Fronteiras*, *Boletim de Estudos Clássicos*, *Revista Portuguesa de Educação* and *Revista Lusófona de Educação*. The last two magazines, indexed in Scopus, assessed in the *Scimago Journal & Country Rank* indicator, transversally disseminate thematic areas grouped under the headings of Sciences of Education and are edited by Portuguese universities.

After this process, we started to analyse the publications of the *Revista Portuguesa de Educação e Lusófona de Educação* magazine during the period 2011-2021, putting the focus on the study of the titles, key words, and the body of the text in order to study the training and teaching development through the first years of the 21st century. To do this we opted by a mixed methodology, both qualitative and quantitative. A detailed picture was built up to classify the total number of articles as well as the number of published volumes or numbers of manuscripts on the subject matter. Then, we classified the type of work, both systematic revisions and empirical work, as well as a comparison of the frequency of the publication of works through graphs which were created with Microsoft Excel 365. Consequently, a quantitative analysis of the topics of the articles and the bibliography collected was carried out.

Results

The results were detailed in different tables and graphs. In this sense, an individual analytic chart with a sample and an array of percentages was created for each magazine in order to justify an analytic chart and an analytic chart and a graph with a sample and a group of percentages which were used for presenting the number of published articles of the subject matter with respect to the total number of articles in each of the volumes/numbers and the comparison in both magazines. The chart I shows that the *Revista Portuguesa de Educação* magazine had a flux of intermittent publications related to both teacher training and development themes. As can be seen, 14 of 253 articles are related to the subject matter, that is, the 5.5%. The other 253 articles published news related to other topics, being the period 2012-2014 the longest period without publications related to politics and current teacher training practices in basic and secondary education. On the other hand, the number of published

works by volume were just minor, with only two articles in each of them. Therefore, there were no substantial works, nor a frequent publication related to teaching in basic and secondary education in Portugal during the given period.

Regarding the research approach, this could consist of systematic revisions or empirical works, with an outstanding diversity in the subject matter. These were focused in the specialized formation of the respective areas of knowledge (Fernandes et al., 2019), as well as in the supervised areas (Caires, et al., 2011; Pais-Vieira, et al., 2021) and the relationship between the teachers and the future teachers with the aim of thinking about them to build up their professional identity (Alves et al., 2017). This can entail that teachers take a leadership role along their career as researchers and innovators, or that put their knowledge into practice, inferring in their students' training (Campos, 2016).

On the other hand, we put the focus on the emotional education among teachers and learners during compulsory education (Cadima et al., 2011), by giving teachers training strategies so they get feedback and improve their work in the class (Fonseca et al., 2015). This gives attention to students' and families' educational needs, fosters communication among teachers (Silva & Silva, 2015). Furthermore, teachers are both mediators and administrators of the educational curriculum. According to their experience, they have different ways to develop it (Ribeiro & Santos 2011) and give meaning to the strategies employed to improve the learning of the students (Dias, 2011). In this sense, an important factor can be the teaching performance evaluation to think about their learning practices in terms of curricular organization, students' learning, or their relationship with families (Alves et al., 2018). In this sense, this evaluation can help us to help detect strengths and weaknesses that guide the teaching work, not as a manager but as a leader for the school community to deliver the school objectives, being an element that helps his development in the profession (Almeida et al., 2018).

Last, the magazine was a space for articles where early-retired teachers review their professional career and reflect on the changes in school practices that result from generational transformation and educational policies (Furtado & Medeiros, 2019; Thomas & Lopes, 2021).

All out, despite the different contributions, the magazine has not undertaken any monographic on teacher training and education profession which considered the educational practices and policies to build up

new approaches and perspectives to transfer them from manuscripts to Portuguese school overview until 2021.

In relation to Table II, corresponding to the *Revista Lusófona de Educação magazine*, a total number of 419 works have been analyzed, from which 7.6% referred to the subject matter. Overall, 32 works have been focused on teaching, learning and development. The rest of the articles, 387, have been focused on a wide range of topics such as education inclusion, teaching ethics, compared education or teacher training within higher education sphere.

TABLE II. Total score and percentages of articles from the magazine about the subject matter

REVISTA PORTUGUESA DE EDUCAÇÃO MAGAZINE			
	Total number of articles	Teacher training and development	%
2011	18	4	22%
2012	20	0	0%
2013	23	0	0%
2014	14	0	0%
2015	21	2	9.5%
2016	28	1	3.5%
2017	20	1	5.0%
2018	26	2	7.6%
2019	24	2	8.3%
2020	30	0	0%
2021	29	2	6.8%
Total	253	14	5.5%

Source: Compiled by author.

The teacher training and development issue has been addressed from different approaches and thematic areas. Teaching leadership in relation to the quality of the student learning, among other topics, has been discussed (Rodrigues & Silva, 2015). On the other hand, in evaluation, we could observe the academic treatment of teachers' qualification and supervision by means of research that shows how the most motivated teachers tend to develop second-cycle studies within superior teaching (Castro, et al., 2012). We could see studies focused on knowing the teach-

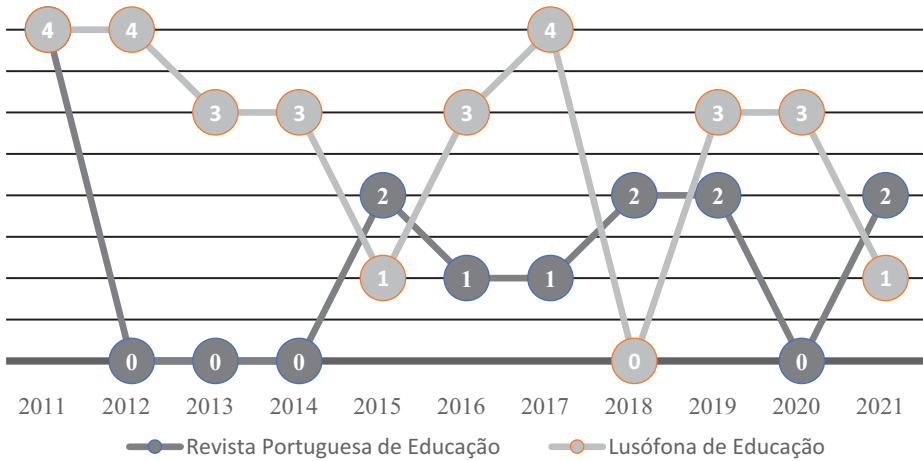
ers' level of competence and their perceptions in relation to the education inclusiveness at secondary education level (Costa & Sanchez, 2016) Articles are remarkable. Teaching competences are analyzed bearing in mind the teaching career development within the context of a globalized world (Conceição & Sousa, 2012). Others will deal with teacher training since the adaptation to Bologna process, by analysing the creation of masters which aim at training future teachers and thus getting the consequent professional accreditation (Fernandes & Conceição, 2013). With a special focus on the education context, Pinto et al. (2018) approaches the problems for the intervention and interpersonal mediation for the education community from an experience developed in one of the basic education schools of the centre of Portugal. In this line and putting value on the practical dimension of teaching function, Candeias (2020) deals with the education perspective of the training process in the context of formal education.

TABLE III. Total score and percentages of articles of the magazine on the subject matter

REVISTA LUSÓFONA DE EDUCAÇÃO MAGAZINE			
	Total number of articles	Teacher training and development	%
2011	28	4	12.5%
2012	28	4	11.1%
2013	28	3	18.18%
2014	31	3	20%
2015	19	1	5.2%
2016	34	5	9%
2017	46	4	16.6%
2018	58	0	0%
2019	56	2	9%
2020	46	3	18.18%
2021	45	1	2.2%
Total	419	32	7.6%

Source: Compiled by author.

GRAPH I. Comparative evolution of published articles on the subject matter



Source: Compiled by author.

Debate

This research was focused on knowing if high-impact education magazines in Portugal had gathered scientific production about teacher training and work from 2011 to 2021. In this sense, the results revealed a scarce publication on this subject. Considering the results obtained, the *Revista Portuguesa de Educação* magazine had a discontinuous publication through time. There is no evidence of this type of publications in 2012, 2013, 2014 and 2020. Nonetheless, the number of articles published per year is lower than the whole number of articles, with no increase in terms of new knowledge production. The number of new articles remains stable over time. With respect to the quality of the publications, it can be highlighted that it embraces both teacher training and development, articulated through systematic revisions, but also through training and professional experiences in education centres. Therefore, although there is a small number of articles on the subject matter of this work, there is a huge variety of published work on the topic.

In relation with the *Revista Lusófona de Educação* magazine, the presence of contributions related with the subject matter has been relatively constant, except in 2018. In general terms, the *Revista Lusófona de Educação* magazine has been a relevant means of scientific dissemination which has embraced a huge amount of high-impact scientific publications. In the same way, its number has helped the projection and puts in value teacher training, and it opens the door to publications with great originality.

In comparative terms, the *Revista Lusófona de Educação* magazine collects more articles on teaching than the *Revista Portuguesa de Educação* one. This is due to the periodicity and frequency of the publication of the volumes/numbers, 4 per year by the former and 2 by the latter, except in 2018, when three articles were published in the special edition of the 30 years of the magazine. That said, with respect to the contents, the *Lusófona de Educação* magazine was focused on the publication of articles on training, while the *Revista Portuguesa de Educação* one was more versatile and published both teacher training and teaching work articles. With all, the total number of articles of both magazines is 672, and the number of articles related to the subject matter is 46, which is translated into 6.8%, that is, a lower production of topics related to the training and work in basic education and secondary education within the Portuguese education context.

It is important to highlight that this scientific production, from the ideas of LeTendre et al. (2018) and Baker & Conolly (2018), cannot remain within the academic context, that is, it must be a useful product both for the advance of the Education Sciences and to improve the legislative reforms, since education is a fundamental right for the whole citizenship, committed with social progress. For this reason, an education on values and knowledge must exist. In this sense, the education administration must consider the aforementioned knowledge, which emerges from real-life school scenarios and that must not be circumscribed to experts' discussion, but establish a communication among scientific, politic and educative spheres. (Viñao, 2002; LeTendre, 2017; LeTendre et al., 2018; Baker & Conolly, 2018; Pattier & Olmos, 2021). Some work, such as that of Roca et al (2020) has been done in this connection, with the aim of intensifying the permeability of scientific evidence at different education levels.

Teaching work will be determined by a *coditio sine qua non* relationship for researching. Such relationship, as stated by Farley-Ripple et al.

(2018), must be stably and reciprocally linked. This way, a continuous flux between scientific knowledge and educational reforms will be generated. It will be necessary to state guidelines that operationalize this scientific knowledge to face up the educational challenges of the school of the 21st century, such as bullying, digital methodologies, communication between school and family, the adaptation of the curriculum to the international education standards or school management, which are just a few of the issues that should be questioned in education forums in order to improve them. To this effect, all the ongoing research should aim at improving the education policies.

In this line of thought, along this text we have tried to explore the interest in teacher training shown by the presence of manuscripts which contribute to the advance of evidence-based knowledge (Pattier & Olmos, 2021). Consequently, we have tried to clarify if these magazines are useful to promote education policies that guide the professional career and, this way, give them the value this type of magazines must have to be considered in the elaboration of education laws as well as in their application in different contexts.

It cannot be ignored that there is high-quality content in both magazines but, despite the articles showing real-life experiences in different contexts, there is still much work to be done to increase the level of knowledge transfer to education policies. In this sense, it is important that the results of these publications are spread among the educational community, so they are considered, with the subsequent improvement of teacher training and teaching work in Portugal. For that matter, despite so far this article was sent there was evidence of a monographic of June 2022 that revolved around the empirical work of teachers through Portuguese and Ibero-American experiences on the *Revista Portuguesa de Educação* magazine, it would be recommendable that these high-impact education magazines carried out specific monographics on these issues. This would give visibility to empirical research focused on the subject matter in local contexts. Such spread would take huge relevance if it was developed through hypermedia channels with social and political scope. The final goal would be to know the innovative teaching practices that have been crucial in the education process of students, as well as to analyse tutor-family relationships, school convenience in the class, peer communication, their work in the class or the bureaucratization in the application of education legislation. But it is also important to assess

their teaching career by analysing the educational and political changes and their adjustment to school context. In sum, it involves putting in value the knowledge learnt at university from a practical point of view in terms of their impact in the improvement of teaching and learning processes.

Conclusions

The research has revealed a lack of scientific production of the subject matter in both analysed magazines from the theoretical and educational field, although it must be pointed out that such assessment must be carefully gathered, since such magazines are circumscribed to a specific context and a restricted subject.

Although the production can be interpreted as sterile, the thematic diversity in the analysed manuscripts can be proved, with a continued presence in the chronological sequence of numbers. Such a sequence of numbers allows one to have a global view of the contributions.

This reality reveals the need for counting with the involvement of other implied agents belonging to the university field, the Administration, and the teachers. Universities, as teacher training institutions, must readapt their education plannings to guarantee the transfer of the knowledge to the graduate students. It is necessary that university teachers stimulate their students to research by implementing active methodologies on the researching-action paradigm. In this line, the educational Administration must assist the legal development of plans which consider the transference of the knowledge, making them flexible to the social chances of current times and with future perspectives. Teachers must be incentivized with the aim of strengthening their role as researchers and disseminators of their teaching practices to contribute to a system of knowledge networks.

The limitations of the research were the reduced number of magazines indexed in the *Scimago Journal & Country Rank* (SJR) indicator, but also to know the reasons why the editors did not promote monographic volumes on this topic. On the other hand, the influence of this scientific production in school culture and professional development is unknown.

As indicated above, this can give clues that guide the scientific community, the political class, and the educational community to promote Portuguese education laws according to the real needs of basic education and secondary education teachers in an era of deep digital transformations. This can be a utopia, since teachers must be chameleonic, that is, they must get adapted in record time to the school context, without the guidance of an educative normative which helps with such changes in a flexible and effective way. Such results in training and development teacher processes conditioned by the resistance and the statism of, at times, partisan and biased education legislation. It must be affirmed that it is possible to advance towards an inclusive and dynamic education legislation that meets teachers' needs. It is necessary to go beyond the knowledge offered by magazines and apply it to the school context and in education institutions. For this, a debate that unifies procedures and stable working groups with the implied agents must be established.

As a proposal of continuity, it would be interesting to develop future research which deepens in the professional areas the authors of the analysed data belong to.

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