CONSTRUCCIÓN DE LA IDENTIDAD PROFESIONAL DOCENTE: UNA REVISIÓN DE LA LITERATURA

Teachers' Professional Identity Construction: A review of the literature
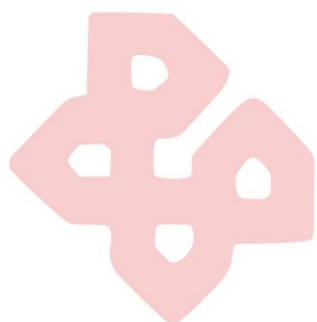
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Resumen:

La construcción de la identidad profesional docente (IPD) es un tema clave en la investigación actual por las implicaciones que puede tener en la práctica educativa del profesorado. Su construcción y evolución están influenciadas por una gran variedad de factores (personales, profesionales y contextuales). Esta revisión de la literatura tiene como objetivo principal conocer cómo evoluciona la IPD durante el proceso de formación inicial del profesorado de Educación Secundaria, tratando de saber cómo se aborda este tema en los programas de formación docente y qué factores pueden influir en su desarrollo. Por ello, se ha llevado a cabo un metaanálisis para examinar la literatura existente entre los años 1990 y 2019, en el que se han analizado 35 estudios de investigación y se ha observado un aumento progresivo de la cantidad de trabajos publicados a medida que se avanza en el tiempo. La mayoría de ellos coinciden en la definición del término, la necesidad de trabajar este tema dentro del proceso de formación inicial y abordar los factores que influyen en su desarrollo. Para concluir, este trabajo evidencia los diferentes enfoques y perspectivas que se han

considerado en la investigación sobre la IPD y, como consecuencia, las variadas posibilidades de estudio.

Palabras clave*: profesión docente, identidad, investigación sobre literatura científica, formación inicial, metaanálisis*

Abstract:

The construction of teachers' professional identity (TPI) is a key issue in current research, so a wide range of scholars has focused their interest on that topic. Its construction and evolution are influenced by a wide range factor (personal, professional and contextual) along the initial training period. This review aims to know how TPI within initial training among Secondary Education teachers evolves, how teacher training programs approach it, and which elements may influence its development. Therefore, a meta-analysis was used to examine the existing literature between 1990 and 2019. A total of 35 research studies were analysed showing an increase temporal tend. Most of them agree with the definition of the main term (TPI), the need to train it within initial training as well as the influence of determining factors in its construction. To conclude, this study evinces the different approaches and perspectives that have been considered in research on TPI, and, as a consequence, the varied study possibilities.

Key Words: *teaching profession*; *identity*; *literature review*; *preservice teacher education*; *meta-analysis*

1. Introduction

In the last decade, Teachers' Professional Identity (TPI) continues being a relevant research area in which a wide range of scholars and teacher educators have focused their attention (Cameron & Grant, 2017; Salazar Noguera & McCluskey, 2017; Izadinia, 2015). Moreover, this interest is even more relevant among preservice teachers for the reason that the focus on the shelf is a central aspect in teacher education referring to the influence of who you are on what you will learn and what you will be as a teacher in the near future (González-Calvo, et al., 2020; Timostsuk & Ugate, 2010) so there is an effect of initial teacher training on the construction of TPI (Salazar Noguera & McCluskey, 2017).

On the whole, despite the fact that literature counts with varied meanings and interpretations of the concept of TPI, they all have a feature in common which has to do with the fact that it is not a fixed quality but it is rather an attribute that evolves while – in the case of teachers - they experience teaching practices and training and the way they share these with others (Beijaard, Meijer & Verloop, 2004). Some authors state that TPI refers to the way in which teachers pursue their profession, their attitudes toward it and the importance they give to their professional work and live and other characteristics that meet to produce a professional (Pillen, Brok & Beijaard, 2013; Cameron & Grant, 2017). Then, Pillen, et al. (2013) state that it is also recognised that its construction should start since the training process, considering it as the central process of becoming a teacher, when teachers negotiate and debate their self-conceptions, prior knowledge about the teaching-learning procedures, and they reflect on their role as teachers (Lim, 2011).

There are several reasons why we develop this literature review. It is necessary to check whether researchers' conceptions about TPI have evolved as well as the focuses of the recent studies and to understand TPI in order to better known insights into the key aspects of their work experiences and lives as well as to see the influence of this concept in their motivation, satisfaction and commitment so it contributes to a greater understanding of the issue in question.

Thus, we aim to know how TPI within initial training among Secondary Education (SE) teachers evolves by answering the following questions: How do teacher-training programs approach TPI? How does TPI evolve during the different stages of initial training? Which elements influence its development?

2. Methodology

2.1.   Selection of studies

We confined literature database searches for the terms "professional identity", "teacher training" and "secondary education" and any combination of these terms by using the Boolean operators namely "or" "and" "not". We reviewed research articles published between 1990 and 2019 because it was in the late nineties when TPI emerged as a "separate research area" (Beijaard, et al., 2004).

The review followed the recommendations and criteria established in the PRISMA statement. It was carried out with the help of two different databases namely Web of Science (WoS) and Scopus since they are the two most internationally recognized databases (Falenchuk, McMullen, Fletcher & Shah, 2017).

2.2.   Inclusion and exclusion criteria

Research articles were evaluated using the PICOS (Population, Intervention, Comparators, Outcome and Study Design) model (table 1).

Table 1
PICOS criteria for inclusión and exclusión of studies

Category	Inclusion	Exclusion
Participants	Preservice and early career teachers	Inservice teachers with a solid and stable career
Intervention	Any	None
Comparator	Any	None
Outcomes	Studies regarding TPI definition, its need to be developed within teacher education (initial and lifelong learning) and influencing factors on this process	Studies too focused on the vocation but not associated with professional identity and those only interested in analysing policies
Study Design	Qualitative, quantitative, and mixed approaches	None

2.3. Approach to analysis

At first, a total of fifty-one studies were collected but after applying the PICO criteria, nine were dismissed (Figure 1).
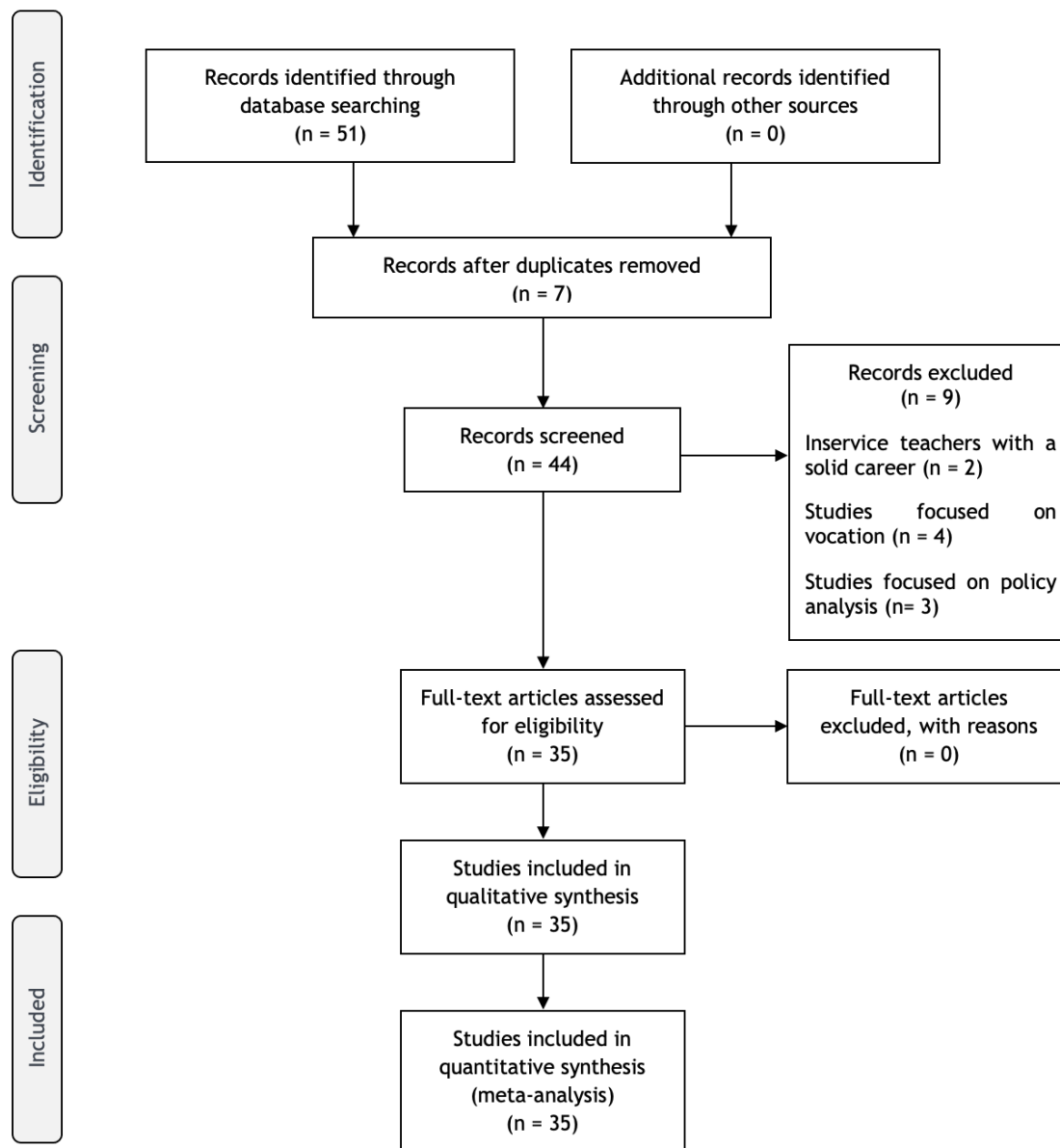

Figure 1. Flow diagram of the literature review process.

Then, the thirty-five selected studies were divided into two main blocks:

a) Reviews

- A.1 Analysis of teacher training programs (n=5). These studies are purely theoretical since they mainly analyse document and official reports.

- A.2 Evolution and development of TPI (n=4). This category is also theoretical, but information is provided by previous reviews.

b) Empirical studies. It is divided into three categories according to the moment in which the investigation has been developed (first training, while training and in-service).

- B.1 Studies carried out during the beginning of the training period (n=6). They count with participants, who have just started their training.

- B.2 Studies whose focus is on preservice teachers in their initial training period (n=13). Participants in these studies have already experienced a placement period.

- B.3 Studies whose participants are in-service teachers who are starting their professional activity as teachers (n=7).

Figure 2 shows he total and the quartiles of research articles classified in the database Scopus (SJR) and Journal Citation Report (JCR).
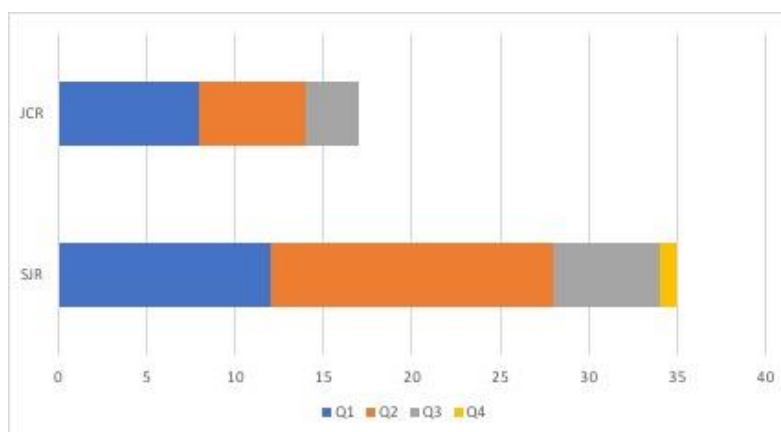

Figure 2. Research articles analysed and databases.

Then, figure 2 shows the amount of publications per years. It evinces that the number of research articles increases over time, so it means the growing interest in research on this subject.
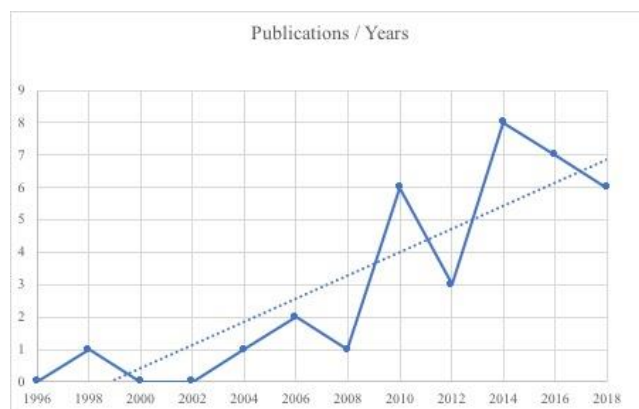

Figure 3. Research articles analysed per years.

3. Results

In this section, we are going to present the studies derived from our search separated in different blocks as defined in the methodology section.

In response to the first question, we distinguish two subcategories (A.1 and A.2).

a) Analysis of teacher training programs (A.1)

In table 2 we present the studies whose aim is to analyse teaching training programs and how they affect the TPI.

Table 2
Studies within A.1.

Reference	Purpose(s)	Methodology	Major findings
Escudero Muñoz (2009) Revista de Educación	To analyse the concepts and capacities that secondary school teacher education programs should develop.	Qualitative research. Document analysis. Two Master's degree programs.	There is a lack of training in terms of professional identity.
Esteve (2009) Revista de Educación	To analyse how pre-service training programs must be planned to help future teacher to build their TPI.	Qualitative research. Document analysis. Investigations of the last 30 years	Orientations to design training programs: Profile each teacher's own professional identity. Understand the classroom as an interactive and communicative system.
González Sanmamed (2009) Revista de Educación	To rethink training programs for Secondary Education teachers and orient them towards the development of TPI.	Qualitative research. Document analysis. Programs (not specified).	There is an urgent need to redefine the professionalization of secondary school teachers. Training must provide opportunities to develop cultural emotions and feelings.
Marcelo García (2009) Revista de Educación	To argument the need to deal with pre-service teacher training from formal and informal spheres.	Qualitative research. Document analysis. Investigations (not specified).	It explains in detail the TPI as the object of the training process.
Lorenzo Vicente, Muñoz Galiano and Beas Miranda (2014) Revista Complutense de Educación Valores Afectivos	To analyse some key issues (e. g. professional identity) related to initial training models for Secondary Education from an international perspective.	Qualitative research. Review (reports). Document analysis. Eurydice (2002-2006, 2012; 2013); MEC (2012); TALIS (2014).	In terms of professional identity, initial training should include both theoretical and practical tasks.

Their main aim is to analyse how initial training programs for SE teachers should be designed to positively contributes to professional identity formation and distinguish which are the elements that must be considered.

They follow qualitative research method. Some of them use Eurydice reports (Lorenzo Vicente, Muñoz Galiano & Beas Miranda, 2014), diverse programs (Escudero Muñoz, 2009; González Sanmamed, 2009) and previous investigations (Esteve, 2009; Marcelo García, 2009).

First of all, it is required to wonder what kind of training is needed in order to deal with current social demands and which objectives this training should achieve (González Sanmamed, 2009). This reflection is the starting point to work towards the construction of TPI along the initial training process. Regarding the major findings, we should start by emphasising that the five studies agree it is within the initial training when pre-service teacher should define their professional identity as educators. It means to provide them with the adequate pedagogical and psychological knowledge and attitudes instead of stressing the content knowledge and academic skills, which lead to train Scientifics and experts in determine field of knowledge but not teachers (Lorenzo Vicente, el al., 2014). Esteve (2009) states that teacher training must be focused on what the teacher does so once they start working in their own classrooms, they do not have to apply a heuristic model that usually affect their self-esteem.

All in all, the best training should include both pedagogical and practical foundations considering the socialisation and complex interactions among educators to build an adequate TPI.

b) Evolution and development of TPI (A.2)

In spite of the fact that the four studies use qualitative research methodology (table 2), they differ from each other mainly due to the sample. On one hand, Beijaard, et al. (2004) carry out a literature review. Then, Bolívar (2007) and Bolívar and Domingo (2006) analyse documents such as previous literature and policy documents regarding teacher-training programs. Finally, the most recent study focuses on Science teachers so Avraamidou (2014) reviewed twenty-nine previous empirical studies that aimed to identify how they build their TPI.

Table 3
Studies within A.2.

Reference	Purpose(s)	Methodology	Major findings
Beijaard, Meijer and Verloop (2004) Teaching and Teacher Education	To carry out a literature review regarding TPI.	Qualitative research. Review. 22 research articles.	Most studies focus on personal variables rather than the contextual ones.

Bolívar and Domingo (2006) Theory and Research in Education	To analyse how Secondary Education TPI is rebuilt in times of educational reform.	Qualitative research. Document analysis. Previous research data (biographical-narrative approach to identity Beijaard et al 2004 and Bolívar et al. 2001). Qualitative research. Document analysis. Investigations of the last 30 years	Professionalisation of teaching is a dynamic process. Professional skills and knowledge as well as training strategies and formative models are needed to construct adequate identity.
Bolívar (2007) Estudios sobre Educación	To describe the process of building TPI in initial training.	Qualitative research. Review. Previous literature (not specified).	This article states how training courses contributes to TPI.
Avraamidou (2014) Studies in Science Education	To examine how the construct of science teacher identity has been conceptualised and studied within science education.	Qualitative research. Review. 29 empirical studies on teacher identity within the field of science education.	It identifies gaps and limitations in the existing literature: Oldest recommendations have not been taken into account so there is not much advance. There are not longitudinal studies.

To start with this block, there is a review of the field of teacher identity, which was published in 2004 by Beijaard, et al. This work is highly seminal since it provides scholars and practitioners with a solid basis of theory and research outcomes. In this paper, the authors reviewed twenty-two studies published between 1988 and 2000.

Moving to Bolívar (2007) and Bolívar and Domingo (2006), they both focus on the relationship between preservice Secondary Education teacher training and identity construction in Spain by taking into account the constant educational reforms. These changes directly affect TPI because it also introduces greater modifications in the "professionalization" of teaching. These authors understand initial teacher training as a process of personal and professional development in which professional identity is built. Identity includes rational factors, which are cognitive, and non-rational ones (emotional and affective) where the personal and professional values are the centre and it expressed through their motivation, attitude and commitment. That is why training directly affects identity construction.

Finally, there is a relevant work in which Avraamidou (2014) deeply analyses Science teacher's identity; she reviewed 29 studies gathered into two main blocks. The first one includes studies related to how teacher identity is framed by their initial training, the subject matter knowledge, the wide range of reforms and dimensions namely competence, performance and recognition. The second one has to do with the elements that can influence teacher identity formation and development

such as courses, experiences, the use of technological devices and diverse curriculum resources and personal histories and biographies.

Regarding the first block of studies, Avraamidou (2014) agrees with other scholars such as Luehmann in Avraamidou (2014) that it is during the initial teacher training when identity is built. Nevertheless, it should be bore in mind that pre-service teachers already bring with them their own identity (maybe shaped by their previous professional experiences) and that this process of forming and reforming is not an easy task. As for science teacher identity, Gee (2000) defines it as the combination of three elements namely competence, performance and recognition.

As for the second block, Avraamidou (2014) gathers studies found in the literature that cover a wide range of approaches. The use of information and communication technologies (ICT) to share their thoughts, feelings, personal histories and considerations is determinant to support the evolution of teachers' identity. However, the management of assorted curricular materials during preservice training shape professional identity since they will strongly control their confidence (Forbes & Davis, 2008 in Avraamidou, 2014). Finally, some researchers have proved how after school experiences enable teacher to rethink about their attitudes, sensitivity, inquiry and collaboration when teaching (Katz et al., 2011 in Avraamidou, 2014).

Whereas tables 1 and 2 focuses on review and theoretical articles; tables 3, 4 and 5 show empirical studies on the field of TPI and these three aims to answer the second and third questions.

c) Studies carried out during the beginning of the training period (B.1)

Table 4
Studies within B.1.

Reference	Purpose(s)	Methodology	Major findings
Timostsuk and Ugaste (2010) Teaching and Teacher Education	To analyse TPI.	Qualitative research. Interviews. 45 student teachers.	It suggests the need to develop the social aspects of learning to teach by supporting teacher identity formation in initial training.
Lim (2011) Teaching and Teacher Education	To explore the underlying structure and dimensionality of student teachers' reflections on their professional identity.	Qualitative research. Autobiographical essays from 90 students. (Preservice EFL teachers).	It highlights key concepts that constitute professional identity: background for career pursuit, conceptualization of a good English teacher and confidence/aspirations.

Manso Ayuso and Martin Ortega (2014) Revista de Educación	To assess concrete elements within the implementation of the Master's degree in Secondary Education teacher training such as the acquisition of the professional identity.	Qualitative research. Document analysis and interviews. Master's Degree's programs. Students at UAM and UPC in 2009-2010 and 2010-2011. Mentors at both universities.	Identity construction is closely related to competences acquisition.
Izadinia (2015) Teaching and Teacher Education	To analyse how mentoring relationships play a role in creating changes in the professional identity among preservice teachers during the first week of training.	Qualitative research. Semi-structured interviews, observations and reflective journals. 7 preservice teachers.	No fundamental changes happened in the participants' teacher identity, only small changes were observed.
Torriente and Villardón-Gallego (2018) Profesorado Revista de Curriculum y Formación de Profesorado	To analyse education undergraduate and master students' perceptions about teachers' social image.	Mixed research method. Open and close question questionnaire. 59 Master students at the beginning of the course. 52 Master students at the end.	Teachers' social prestige is a factor that affects teachers' identity and quality of education. Participants have great awareness of the undervalued social status of teachers.
Ibáñez and Oliva (2018) Profesorado Revista de Curriculum y Formación de Profesorado	To analyse the impact of MAES in the initial training of future teachers of Spanish language and Literature as the basis of their professional identity.	Qualitative and quantitative research methods. 18 MAES students.	MAES has been a meaningful leap in the quality of initial training of future Secondary Education teachers.

There are six studies whose aim is to analyse TPI within their first stage of training as well as to examine which elements can introduce some changes in preservice TPI.

In terms of methodology, the first four studies follow qualitative research methods, whereas the last two carry out mixed research methods.

Timostsuk and Ugaste (2010) carried out a study in which they give importance to the role of both the self and social aspects in the formation of the TPI. On one hand, the researchers support it is decisive to know oneself before recognising you as a teacher, so they understand TPI as the person self-knowledge in changing context and the links between their previous experiences and their feelings. On the other hand, there is a range of social aspects, which should be developed by supporting teacher identity formation in the initial training. Among these social issues, they highlight the interpersonal relationships and cooperation with other people within the educational contexts, the socio-economic circumstances who directly affect the students, and consequently, the teaching practice.

Preservice teacher training gathers professionals from varied specialisations. Lim (2011) aims to investigate English preservice teachers' reflections on their professional identity. The researcher identifies the concepts that constitute professional identity by analysing the autobiographies of student teachers and the beliefs, perceptions and feelings that underline them. Participants are divided into two blocks: undergraduate student teachers (USTs) and graduate student teachers (GSTs). This study reveals differences between USTs and GSTs in their professional identities. Despite these two groups agree with the conceptualization of what a good English teacher is, they differ in the methodological strategies and skills needed.

Regarding preservice teachers' training, in the second study, Manso Ayuso and Martín Ortega (2014) assess the implementation of the Master's Degree in Secondary Education teachers training in two Spanish universities in order to identify their strengths and weaknesses. After analysing the programs, interviewing key informants from both universities and surveying students, teachers and mentors, the researchers were able to reach some conclusions such as the fact that longitudinal study enables the researchers to see how teachers' identity evolves through the training process when they acquire the necessary competences.

In addition, there are diverse factors and elements, which help teachers to build their professional identity and make them feel more confident. In this way, Izadinia (2015) focuses her attention in studying whether mentoring relationships reduce the attrition rate by supporting this hypothesis on authors such as He (2009, p. 1 in Izadinia, 2015) who states "the mentoring experience is a key factor in the success of beginning teachers." and Johnson (2003, p. 2 in Izadinia, 2015), who argues that "the relationship between a mentor teacher and a preservice teacher can transform the teachers involved." In order to pursue her main goal, she interviewed seven preservice teachers three times over the course of the one-year GDE-S program: before their first placement, after the first placement and at the end of the second placement. Results reveal positive and negative mentoring relationships. After all, she concluded that every preservice teacher has their own expectations of the training program, so they need different sort of help depending on their personalities and attitudes to properly build their confidence and construct their identity as teachers.

Another factor that influences the development of teachers' identity has to do with the social image of the profession and how future teachers perceive that (Torriente & Villardón-Gallego, 2018). In this sense, their initial training contributes to become aware of this profession's undervalued status and how it affects to their sense of belongingness to the profession and the construction of professional identity.

Finally, Ibáñez and Oliva (2018) analyses the confrontation between the professional identity acquired along the initial teacher training and the classrooms reality. They add that the Master's Degree in Secondary Teacher Education positively supply proper strategies to enhance TPI.

Thus, this block (Table 3) points out relevant facts to consider in future research among preservice teachers in their initial training such as the need to deepen in mentors' role and research on what constitutes mentor training; to approach TPI within the training period and to make teacher educators aware of preservice teachers' beliefs to facilitate their professional identity development.

d) Studies whose focus is on preservice teachers in their training period (B.2)

This category counts with the highest number of research articles (table 49). It shows a great gap between 1997 and 2006 and between 2006 and 2010 where studies related to TPI has not been found in our search.

Table 5
Studies within B.2.

Reference	Purpose(s)	Methodology	Major findings
Evans and Abbott (1997) Teacher Development	To examine how mentoring role may influence identity.	Qualitative research. Comparison of two models of PGCE secondary ITE.	Commitment along the training process is crucial so the role of mentoring also determines the way in which future teachers construct their identity.
Raffo and Hall (2006) British Journal of Sociology of Education	To examine how social and cultural aspects influence the trainee development and their identity construction.	Qualitative research Semi-structured interviews 9 full-time secondary PGCE trainee teachers (2002-2003).	Complex interdependences of personal biography, identity and socio-cultural dimensions of context have a great impact on the way they become teachers.
Hong (2010) Teaching and Teacher Education	To identify the relationship between preservice and beginning teachers' identity and their decision to leave the profession.	Mixed method research. Interviews and surveys. 84 surveys, 24 interviews.	The main reason to leave the profession has to do with emotional burnout due to their idealistic previous perceptions.
Smith and Darfler (2012) Journal of Science Teacher Education	To train Secondary Science teachers in developing identity among their students through an 8-week pedagogy course.	Qualitative research. Descriptive and grounded approach – data coding. 22 Secondary Science teachers.	Participants reported two broad categories of concerns with regard to identity constitution: teachers' prior knowledge, training and institutional support; inflexible curricula, standardized testing and teacher accountability.
Nicotra, Massimino, Petralia, Attinà, Maugeri and Costa (2012) Acta Medica Mediterranea	To examine among PE teachers in training their self-esteem, identity and self-assertion	Qualitative research. Projective techniques the human-figure drawing. 64 teachers in training.	Identity values increases as the training course develops.

Kim Anh (2013) Teaching and Teacher Education	To analyse the evolution of the professional identities of student teachers in a paired-placement in Vietnam.	Qualitative research. Individual semi-structured interviews. One pair (representative of the cohort in terms of gender, background, etc.)	Most of their conflicts were constructively solved and they experienced qualitative development in their teaching identities.
Torrecilla Sánchez, Martínez Abad, Olmos Migeláñez and Rodríguez Conde (2014) Profesorado Revista de Curriculum y Formación de Profesorado	To test whether teaching programs about informational competences on conflict resolution are effective to improve the configuration of professional identity among Secondary Education teachers.	Quantitative research. Pre-experimental design with minimal control by pre-test and post-test. 60 students enrolled in the Master's Degree in Secondary Education teacher training.	Improving cross-curricular core competences is positive for the professional identity constitution in secondary school teachers.
Martínez de la Hidalga and Villardón Gallego (2015) Profesorado Revista de Curriculum y Formación de Profesorado	To know how students enrolled in the Master's Degree in Secondary Education understand the image of a high school teacher in initial training with regard to TPI.	Qualitative research. Open-question questionnaire. 35 students enrolled within this Master's Degree.	It is necessary to identify teachers' competences within the process of identity construction. These competences have to do with planning and evaluation, students' guidance, communication, encourage students and their autonomy, curriculum design, teaching strategies and education in values.
Green (2015) Asia-Pacific Journal of Teacher Education	To examine the formation of their identity as new teachers, their adaption to the new roles and their own thoughts in relation to their new careers.	Qualitative research. Interviews, site visits, emails and phone calls. 12 career-change teachers from industry background.	The identity formation was clearly influenced by their prior industry experiences and their vocational attitudes rather than by their teacher education program and their experiences in schools.
Papavassiliou-Alexiou and Zourna (2016) Professional Development in Education	To analyse how the training in and use of Drama in Education (DiE) affects the development of teachers' skills (identity).	Qualitative research. Semi-structured interviews. 35 Secondary Education teachers who had been trained in DiE.	DiE strengthens their professional identity.

Izadinia (2016) International Journal of Mentoring and Coaching in Education	To examine the changes in preservice TPI after a four-week block practicum. To investigate the role of mentor teachers in creating changes in their professional identity.	Qualitative research. Open interviews. 8 secondary preservice teachers and 9 mentor teachers.	Some participants' experiences changes in: Confidence: due to their mentor's support, positive feedback and advice. Teacher voice understood as a sense of authority: they take ownerships and more decisions. Vision: through the course they change their conception of teaching and teachers' identity. These variables affect the construction of identity.
Trevallion (2018) International Journal of Innovation, Creativity and Change	To examine the transitions a pre-service Technology Education teacher during their pre-service program.	Qualitative research. Multiple case study approach (portfolios, concept maps, reflective journals and semi-structured interviews).	This study discusses significant changes in the students' professional identity and this has significant implication for the training of secondary teachers.
Bennett and Chong (2018) International Journal of Music Education	To explore pre-service music teachers' professional identities during pre-service training.	Mixed research methods. 60 undergraduate and graduate students in the field of music.	Participants' teacher identities did not align with their level of performance proficiency but with participants' intentions to remain in teaching.

The main aim of these studies is to analyse the evolution of TPI along their training. Some of them focus their attention on the changes it suffers and the link between preservice teachers and mentor teachers during the training period (Izadinia, 2016; Kim, 2013; Evans & Abbott, 1997; Raffo & Hall, 2006). The other authors (table 4) are more interested in analysing TPI influencing factors.

In order to reach these objectives, some researchers have used qualitative research methods, other quantitative ones and another group mixed research methods depending on the sample, the context and the goals.

Not only Izadinia (2016; 2015) but also other researchers such as Kim (2013) and Evans and Abbott (1997) devote their attention to the importance of the placement periods and the mentor teachers' role. They base their concern on the premise that teacher identity formation is a process of negotiation between diverse conceptions of teaching that can be seen during the placement period by interacting with in-service teachers. Mentors affirm that there are changes in aspects such as the teaching strategies, authority, confidence and relationships with pupils (Izadinia, 2016). The mentoring relationship is decisive because it affects teachers' identity and confidence in their work. Sometimes, mentees are grateful for the support and assistance they receive and they recognize how it positively affect to their

professional development (Izadinia, 2016) but occasionally there could be some misunderstandings and contradictions regarding the planning, coordination and teaching tasks that modify the way preservice teachers perceive their experiences cognitively and affectively (Kim, 2013) and it makes them to underestimate the role of mentor teachers (Raffo & Hall, 2006; Evans & Abbott, 1997). However, they all agree that placement makes changes in preservice teachers' identity along its evolution.

Besides, being identity a dynamic concept, its progression has caught the attention of many scholars. Within this category, there are five studies, which have proved the effectiveness of Drama in Education (DiE) (Papavassiliou-Alexiou & Zourna, 2016), the enhancement of teachers' competences (Smith & Darfler, 2012), the understanding of students' identity (Torrecilla Sánchez, et al., 2014), the proficient management and solid understangind of Education (Trevallion, 2018) and the influence of teaching bonds (Bennett & Chong, 2018) as strategies that contribute to the development of TPI. Firstly, DiE strengthens professional identity because once teachers have been trained to apply it into their daily practices, they feel more confident, and they discover how motivating this strategy is for both teachers and students.

Secondly, Smith and Darfler (2012) ensure that in order to become an effective secondary Science teacher, it is not only necessary to develop teachers' identity but also to know students' identity and how it evolves. Results support the premise that there are strong connections between identity and student motivation.

Thirdly, Torrecilla Sánchez, et al. (2014) study the connections between teachers' competences and identity progression. They affirm "improving on transversal core competences is positive for the professional identity constitution in secondary school teachers." (Torrecilla Sánchez, et al., 2014, p. 190). Results reveal that the more developed these competences are, the better teachers' identity is constructed but they point out that these competences are not trained enough during initial teacher training in the study's context, which is Spain.

Altogether, TPI evolution is continuous, and it is affected by diverse factors that are directly connected to the teaching practice. Martínez de la Hidalga and Villardón Gallego (2015) study how important the image of a secondary education teacher in initial training is in regards with the identity construction and they also take into account its relationship with the development of teachers' competences. In this sense, they go further since they consider that preservice teachers should be able to identify their competences as well as to train them.

Then, there are also some important aspects of the personality of the teacher that should be considered to get success in the construction of teachers' identity. Nicotra, et al. (2012) point out two of them namely self-esteem and self-assertion.

Furthermore, vocation and identity are strongly related. Green (2015) considers that prior careers experiences influence the creation of identity among

mature new teachers. She concludes that previous experiences influence the formation of the TPI.

To end up with this category, Hong (2010) analyses factors such as values, efficacy, commitment, knowledge and belief, emotion and micropolitics as parts of the teachers' identity. It means that those teachers, whose identity is not solid and well-constructed, usually show emotional burnout that make them leave the profession.

e) Studies whose participants are in-service teachers who are starting their professional career as teachers (B.3)

This category includes the most recent research articles (published between 2013 and 2017). They all share a feature; the participants of the studies are novice in-service teachers so they have been working for a maximum of five years. As for their goals, they concentrate on how their TPI evolve once they are emerged in their daily praxis as teachers as well as on identifying diverse ways teachers have to personally reflect about the skills they put into practice and their own progression such as e-Portfolio (Boulton, 2014).

Table 6
Studies within B.3.

Reference	Purpose(s)	Methodology	Major findings
Pillen, Den Brok and Beijaard (2013) Teaching and Teacher Education	To study profiles and tensions regarding professional identity.	Quantitative research. Close-question questionnaire. 373 teachers.	It provides a classification of six profiles: teachers struggling with significant others, with care-related tensions, with responsibility-related tensions, moderately tense teachers, tension-free and troubled teachers.
Lenuta Rus, Raluca Tomsa, Luiza Rebega and Apostol (2013) Procedia - Social and Behavioral Sciences	To examine the elements of science teachers' professional identity.	Qualitative research. Content analysis. 21-Statement Test (created for this study based on Kuhn and McPartland's 20 statements). 80 teachers.	Teachers' professional identity was defined using statements related to worker characteristics, occupational and worker requirements, whereas statements regarding experience were less relevant.

Boulton (2014) European Journal of Teacher Education	To demonstrate the efficacy of using ePortfolios to enhance career skills for new teachers focusing on digital stories of developing professional identity.	Qualitative research. Action research. Two semi-structured interviews. An electronic questionnaire. Observations. 25 newly qualified teachers.	The participants view the ePortfolio as an assessment tool rather than as a repository for authentic evidence for evidencing professional identity.
Sanz Ponce and Hirsch Adler (2016) Perfiles Educativos	To diagnose the skills that teachers use in their daily work focusing the attention on conflicts and ethical dilemmas, deontology, professional identity and ethical skills.	Quantitative research. Scale of attitudes regarding professional ethic (Ajzen and Fishbein 1980). 551 Secondary School teachers (private and semi-private centres).	High level of self-awareness among teachers with regard to their professional ethics.
Sancho-Gil and Correa-Gorospe (2016) Movimento	To study how identity is built through diverse experiences, contexts and elements during the first years as teachers.	Qualitative research. 23 micro-ethnographies and 13 focus groups. 88 teachers.	Teachers' identity is linked to personal experiences and social interactions. Initial teacher training directly influences teachers' identity.
Salazar Noguera and McCluskey (2017) Teacher Development	To identify to what extent beginning teachers feel prepared for teaching. To analyse what they have learned as practicing teachers.	Qualitative research. Open interviews. 12 secondary education teachers from Spain and 9 secondary education teachers from Australia.	There are differences in their early career experiences regarding professional learning and their development of identity.
Cameron and Grant (2017) International Journal of Mentoring and Coaching in Education	To explore how external subject-specific mentoring can influence the professional identity construction of early career physics teachers	Qualitative research. Semi-structured interviews. 18 physics teachers (UK)	The mentoring process has a strong impact on their professional identity. There is a relationship between teachers' needs and their identity.

On one hand, Pillen, et al. (2013) identify the tensions that appear once teachers start their jobs as teachers because of the differences in how they see themselves as a person and as a teacher.

Although, these studies are focused on early career teachers, the interest in knowing the elements that set up TPI is still in force. Lenuta Rus, et al. (2013) identify six of them: worker characteristics, occupational and worker requirements, experience, occupation-specific information and workforce characteristics.

Cameron and Grant (2017) interviewed 18 teachers to know the impact of external subject-specific mentoring on their professional identity. Results show that early career teachers start identifying their training needs and they are directly

connected to their identity. Moreover, the mentoring process plays a key role in either rise or suppression of their TPI.

In light of the above, the identification of teachers' needs is crucial during the first years of teaching. Salazar and McCluskey (2017) and, Sancho Gil and Correa Gorospe (2016) focus on analysing whether teachers believe they are ready for their careers or not and how they interact within their professional contexts. Both studies consider the placement experiences as an important period that could influence them in diverse ways. Salazar and MacCluskey (2017) carried out the study in Spain and Australia so result slightly differ from each other. In Spain, participants refer to the lack of motivation within the theoretical lessons and the positive experience of the placement. In Australia, participants see the training period as beneficial although they clearly say that it was until they work as teachers when they truly understand teacher's role. Sanz Ponce and Hirsch Adler (2016) are also interested in diagnosing the skills novice teachers use so as to provide them with specific training which contributes to their identity construction. Among the main findings, participants point out professional identity as one of the dimensions within the professional ethics.

It is also interesting how the evolution of TPI can be analysed through e-Portfolio although it is necessary to be competence in using ICT (Boulton, 2014). All in all, the researcher sees this tool as a space for developing professional self-identity through sharing community needs with pre-service teachers. Thus, it could accomplish two goals: to deepen on identity evolution and to support preservice teachers.

Despite all the studies used in this review aim diverse goals, they share the interest in TPI and its evolution at various stages.

4. Conclusions

In the introduction of this review, we identified TPI as a separate research field due to the great interest scholars have devoted to it and its repercussion in educational success. The number of studies is constantly growing up and there is also a significant evolution in terms of methodology. At the beginning, most of studies were quite theoretical so they based on the analysis of documents, training program and international reports. Teacher training programs as well as international reports agree with the importance and need to devote specific attention to the construction of TPI. Then, there was a slight change in the method, so the researchers started to interview both teacher educators and preservice teachers in order to be provided with more real information and closer to the educational praxis. Finally, those studies, which are more recent, introduce quantitative analysis such as pre-test and post-test and cluster analyses and mixed research methods which enable the researcher to get better understanding and corroboration of the research problem due to the integration of diverse strategies. It means there has been an evolution in

the approaches used in the field, which reflects the expanding concern on TPI nowadays.

The concept of TPI has also matured during this time. On one hand, most of the researchers define it similarly so they understand the term as a dynamic nature concept, which is important to understand their professional lives and career decision-making. Moreover, it refers to the perceptions preservice teachers have of themselves regarding self-awareness, knowledge, values, confidence and the interaction with colleagues, students and families. On the other hand, the researchers analyse a wide range of factors and elements, which influence the development of the TPI. Although some of them were already directly or indirectly considered in previous studies such as motivation, confidence and working experiences, there are some new elements such as the contextual features, the mentoring relationships, self-esteem and tensions. It means advancement with respect to the conclusions of Beijaard, et al. (2004) since they stress the need to pay more attention to the context in professional identity formation as well as to the interactions between mentors and mentees, which provide preservice teachers with a more realistic viewpoint that reinforce their self-esteem and reduce possible tensions in future practices.

Furthermore, it is clear that TPI evolves along the different stages of training, since the initial steps, during their first experiences with the real practice in their placement periods and afterwards. Then, it confirms that identity is something that develops during one's whole life and it is affected by a wide range of factors and elements both personal and contextual ones.

Research in this field point to improve initial Secondary Education teachers training as future lines taking into account that this process is crucial and that by creating a consistent identity among preservice teachers, retention rate of beginning teachers will be lower and educational outcomes at this stage will ameliorate. Furthermore, the role of mentoring should be emphasized for the reason that it has been proved its strong influence in teachers' identity (Izadinia, 2016). In this sense, the mentor should be motivated enough because otherwise their role could become ineffective, and it affects preservice teachers' conceptions regarding their future role functions and creates tensions between them. In addition, longitudinal studies in this field are needed so as to study in detail whether evolution is significant within a concrete period of time.

This work makes a useful and updated contribution to the field. Not only it gathers the most relevant studies with regards to TPI and its construction, but it also brings insights regarding where investigation should go further in order to meet educational needs and societal demands. TPI has been shown to influence the teaching-learning process so those educators who feel a strong teacher identity, will succeed in their practice and their students will be able to take the most of each lesson due to their motivation.

To conclude, our future research aims to design a Likert scale questionnaire, which enables us to clearly identify which elements affect the development of TPI during the initial training of Secondary Education teachers. So, then this data can be corroborated with semi-structured interviews. Moreover, this review supply with a solid, complete, and updated literature, which will serve as the basis for forthcoming research articles.

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Conflicto de intereses: No existen conflictos de intereses para la publicación de este manuscrito.

Declaración ética: La investigación se ha realizado conforme a los principios éticos establecidos por la comunidad científica.

Cómo citar este artículo:

Pérez Gracia, E., Serrano Rodríguez, R., & Pontes Pedrajas, A. (2022). Construcción de la identidad profesional docente: una revisión de la literatura *Profesorado. Revista de Currículum y Formación de Profesorado*, *26*(1), 371-393. DOI: 10.30827/profesorado.v26i1.13211