

Language for Specific Purposes Teacher Education: A Scoping Review¹

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Abstract

Language for Specific Purposes (LSP) has received extensive theoretical and empirical attention across most of its sub-areas. However, several claims have been raised as to the limited scope of research on LSP teachers. The present study is a review of the studies conducted on LSP teacher education from 2000 to 2019 in order to track the scope of the state-of-the-art and peer-reviewed works done in this area. The search for LSP teacher education research yielded 60 studies representing similar foci from which ten categories emerged. The categories included: action research, cognitions, practices, cognitions and practices, content and language teachers, professional development, genre, critical incidents, identity, and language change. It was found that the line of inquiry features a dispersed, intermittent empirical attention to teachers, with a wide array of topics existing within the nomenclature of teacher education being untouched in LSP. Additionally, in comparison to general language teacher education, LSP teacher education has received much less attention, which in turn calls for further attention from researchers to build the associated scholarship in more depth. The study raises implications for LSP teacher education situated within the current understandings of (language) teacher education and highlights the relevant potential research directions.

Resumen

El lenguaje para propósitos específicos (LSP) ha recibido bastante atención teórica y empírica en la mayoría de sus sub-áreas. Sin embargo, se han planteado varias afirmaciones sobre el alcance limitado de la investigación sobre los profesores de LSP. El presente estudio es una revisión de los estudios realizados sobre la formación docente en LSP desde 2000 hasta 2019 con el fin de entender el alcance de los trabajos de vanguardia y revisados por pares realizados en esta área. La búsqueda de investigaciones sobre formación docente en LSP arrojó 60 estudios que representan focos similares de los que surgieron diez categorías. Las categorías incluyeron: investigación-acción, cogniciones, prácticas, cogniciones y prácticas, profesores de contenido y lenguaje, desarrollo profesional, género, incidentes críticos, identidad y cambio de lenguaje. Se encontró que la línea de investigación presenta una atención empírica dispersa e intermitente sobre los maestros y que existe una amplia gama de temas dentro de la nomenclatura de la formación del profesorado en LSP que no se han tocado. Además, en comparación con la formación de profesores de idiomas en general, la formación de profesores en LSP ha recibido mucha menos atención, lo que a su vez exige una mayor atención por parte de los investigadores. El presente estudio plantea implicaciones para la formación de profesores de LSP situadas dentro de los conocimientos actuales de la formación de profesores (de idiomas) y destaca posibles direcciones para investigación relevantes.

Introduction

Language for Specific Purposes (LSP) has developed in the past decades theoretically and empirically. A persistent discussion within the academic discourse pertains to the comparative status of Language for General Purposes (LGP) teachers and LSP teachers. LSP is particularly assumed to differ from LGP with regard to teachers' roles. Hall (2013) makes a distinction between LGP and LSP teachers in that, while the LGP teacher deals mainly with methodological considerations, the LSP teacher is assumed to go beyond methodology and develop a researcherly disposition toward their career. In the same vein, Dudley-Evans and St John (1998) deploy the term 'practitioner' rather than 'teacher' to underscore that LSP "work involves much more than teaching" (p. 13). They put forward five roles for the LSP practitioner including being teacher, course designer and materials provider, collaborator, researcher, and evaluator.

According to Dudley-Evans and St John (1998), the practitioner as a teacher is assumed to be rather in an equal position with students in terms of the carrier content, and in some situations the students may know more about the content than the practitioner. The LSP practitioner also takes the roles of selector from among the existing materials, adapter when the suitability of the material(s) is under question, and writer when suitable materials are lacking. Furthermore, LSP practitioners may avail themselves of the interplay between language and content through being collaborators or cooperators. The practitioner of LSP should also be in touch with the bulk of the research in the field and "carry out research to understand the discourse of the texts that students use" (p. 15). Finally, LSP practitioners, who are already involved in various types of evaluation, need to triangulate their evaluations with other effective techniques to solidify their interpretations. Additional roles have also been associated with LSP practitioners including being advisor in

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Content and Language Integrated Learning (CLIL) programs and intercultural mediators and mentors (Basturkmen, 2014). Inherent in these roles is a transformation of LSP teachers' role from doing the activity of teaching toward developing a rigorous, well-founded knowledge base that propels the practitioner through their professional career.

Hamp-Lyons (2001) also contended that "General English teachers may not be ready for the more complex and potentially problematic nature of EAP," (p. 127) and that those with general English background need added competencies for teaching LSP (Campion, 2016). Regarding the preparation of LSP practitioners, Ding and Campion (2016) hold that there are few organizations preparing practitioners in LSP, except for the British Association of Lecturers in English for Academic Purposes (BALEAP), which should "provide accompanying information about how teaching in these two areas [LGP and LSP] might differ" (Campion, 2016, p. 61). Similarly, Sharpling (2002) problematizes the adequacy of the preparation of EAP teachers and calls for epistemological revisiting of the issues of training and development in EAP. Within this line of thinking, Pradhan (2013) argued that "we can still find how discourse analysis, programme description, needs analysis/syllabus design and materials and methods are some major areas of research" (p. 5), with little systematic attention to teachers' roles in the execution of these agendas and that "[LSP] teacher training is the least preferred area ... in the whole world" (p. 7).

Besides the institutional underrepresentation of LSP teacher preparation, a number of claims have been raised as to the limited empirical attention to teacher education in LSP (e.g., Ding & Campion, 2016; Tavakoli & Tavakoli, 2018). In her review, Basturkmen (2014) pointed out that "the topic of teachers and teacher education has not attracted much interest by researchers in LSP to date" (p. 20). Basturkmen elaborated on two lines of inquiry including the role of specialized knowledge and the content of teacher education programs and called for further studies on Language for Specific Purposes Teacher Education (LSPTE). However, few studies to date have provided the field with a review of research on LSPTE, its contributions to the understanding of LSP practitioners, and its potentials for future research. Conducting a review of the studies done on LSPTE is important in order to gain a better understanding of how the body of knowledge has developed in the field. This need is augmented in terms of providing LSP practitioners with a recognition of how they have been understood in the literature as the "community that ESP professionals know the least about is their own" (Belcher, 2013, p. 544).

The Review

The present study is a scoping review, a type of review that maps literature in a field (Arksey & O'Malley, 2005). These authors hold that in comparison to systematic reviews, scoping reviews "address broader topics where many different study designs might be applicable" and are "less likely to seek to address very specific research questions nor, consequently, to assess the quality of included studies" (p. 20). The study set out with the guiding principle that LSPTE has been under-researched. Additionally, the study relied on Tricco et al.'s (2018) PRISMA Extension for Scoping Reviews (PRISMA-ScR) amalgamated with Arksey and O'Malley's ideas in its addressing of the methodology adopted in reviewing the studies and identifying key issues of a scoping review. Arksey and O'Malley (2005) mention four reasons for conducting a scoping review, three of which are compatible with the motivation behind the present review, as follows:

- To examine the extent, range and nature of research activity: This type maps out the field of study, yet it might not detail the findings of the studies.
- To summarize and disseminate research findings: This type provides the findings to various stakeholders in order to be employed for improving the standards of their systems.
- To identify research gaps in the existing literature: This type draws conclusions from the extant literature and identifies the gaps in the literature to contribute to the development of knowledge in the area of inquiry.

The methodology of a scoping review involves the stages of (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data, and (5) collating, summarizing, and reporting the results (Arksey & O'Malley, 2005).

Scoping review research question

The question addressed in this study was "What knowledge base does current research provide about the scope of LSPTE research?" Language for specific purposes teacher education was thus operationally defined as the empirical studies conducted on LSP practitioners (including different aspects of their professional practice), and the associated relevance to various LSP-related issues.

Identifying relevant studies and study selection

A number of inclusion criteria were set to select the studies. First, the reviewed studies are all from the year 2000 or more recent. The studies of the past 19 years were selected in order to track the state-of-the-art works done on LSPTE. A number of studies were published about LSP practitioners in the decades before the current millennium – for example the special issue on teacher preparation published in *The ESP Journal* in 1983, but these studies were not included in the present review. Second, the studies reviewed were those published in peer-reviewed journals; theoretical and editorial articles addressing LSPTE were excluded. The selected studies were those published in English, and publications in other languages were excluded.

Third, a number of search terms and key concepts were used to hand-search the studies (Table 1). In addition, there were a number of studies in which the above terms have not been directly used in their title, but had involved practitioners in the study (e.g., Celani, 2008; Cowling, 2007; Soodmand Afshar & Movassagh, 2016; Tavakoli & Tavakol, 2018; Tsou & Chen, 2014). Thus, the methodology of these studies was also checked to ensure their direct relevance to LSPTE.

ESP	EAP	LSP
<ul style="list-style-type: none"> • Teacher • Instructor • Practitioner • Teacher education • Teacher training • Teacher development • Teacher beliefs • Teacher perceptions • Teacher practices • Teacher conceptions • Teacher attitudes • Teacher disposition • Teacher views 	<ul style="list-style-type: none"> • Teacher • Instructor • Practitioner • Teacher education • Teacher training • Teacher development • Teacher beliefs • Teacher perceptions • Teacher practices • Teacher conceptions • Teacher attitudes • Teacher disposition • Teacher views 	<ul style="list-style-type: none"> • Teacher • Instructor • Practitioner • Teacher education • Teacher training • Teacher development • Teacher beliefs • Teacher perceptions • Teacher practices • Teacher conceptions • Teacher attitudes • Teacher disposition • Teacher views

Table 1: The terms and their combinations used to search for the studies

In addition to conducting an extensive Google Scholar search using the above terms, the databases of Wiley-Blackwell, Taylor & Francis, Springer, Elsevier, SAGE Publications, and John Benjamins were also checked. These publishers were specifically checked to ensure the inclusivity of the studies and override the possibility that some studies would not surface in the Google Scholar search. Additionally, every issue of *Journal of English for Academic Purposes*, *English for Specific Purposes*, *Iberica*, *ESP Today*, and *Asian ESP Journal* was examined to find the relevant studies. These journals were specifically checked because they have been indexed in either or both databases of Scopus and Social Sciences Citation Index (SSCI). The author did not just rely on the title or abstract of the studies, but checked their methodology to ensure their direct relevance to LSPTE. Furthermore, the very articles reviewed in this study were examined as sources of finding the studies through analyzing their literature reviews and discussions/conclusions.

Charting the Data

The included articles were then charted and classified according to their focus. For example, a study that has addressed the teachers' knowledge was included in the category of "cognitions." The decision with regard to the category the studies fit in was established based on the body of knowledge on teacher cognition/education. It must be mentioned that the review is substantive in its treatment of the studies in that while the studies address the practitioners' cognitions and practices – as two major themes, the grouping of the studies mainly followed the core of the studies, with overlaps in some of the categories. In this regard, in cases where a study could fall into two categories or had a combination of some of the categories, the one which was of central significance in the design of the study and had the required characteristics to be included in a specific category was selected (either used in the title or as operationally defined in the study) (Tricco et al., 2018). For example, a study that explored the practitioners' perceptions in a teacher education course has been included in the category of 'professional development' as the latter was the cornerstone of the study around which the study was structured. The studies were categorized on the basis of the number of teachers, purpose of the study, context, data collection and data analysis method(s) used, and the findings. This was also in line with Norris and Ortega (2006) in focusing on "the

actual variables, characteristics and data reported in primary studies, rather than [only] on the study-specific conclusions offered by primary researchers" (p. 6). Analyzing the studies this way was important to furnish a clear picture of each study, to depict the designs, and to provide the related future research line(s).

Results and Discussion

The search for LSPTE-related research yielded sixty studies at the time of review (up to 2019). A major category of "LSP teacher education" was broadly defined consisting of ten sub-categories including action research, cognitions, cognitions and practices, practices, content and language teachers, professional development, genre, critical incidents, identity, and language change (Figure 1). Below, each of these sub-categories is discussed empirically and theoretically, and the related future research lines are proposed. In proposing the potential research lines, the study aimed to follow the method which "compiles findings and seeks generalizations by examining categories of data and methodology that cut across studies, in order to create as systematic a depiction as possible about what we know, what we do not know, and why" (Norris & Ortega, 2006, p. 7). Therefore, in addition to depicting the foci of the reviewed studies and the associated potential directions anchored in the design of the studies, other related future research lines have been proposed "to scope out ... the empirical territory in order to identify a gap in which to situate new primary research" (Norris & Ortega, 2006, p. 5).

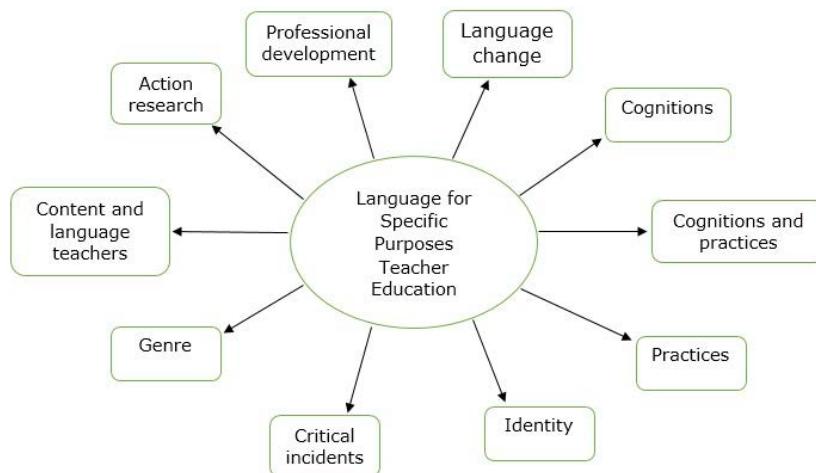


Figure 1. Categories of the studies conducted on language for specific purposes teacher education.

Action Research

The search for action research studies initiated by practitioner(s) produced five studies including Banegas (2018), Cadman (2005), Chen (2000), Cheng (2015), and Sullivan and Girginer (2002). There is one study (Swales, 2009) which seems to be related to action research – as stated in the abstract of the article, yet after reading the paper it turned out to be more theory-oriented and thus it was excluded. Practitioners developing a researcherly attitude has been underscored by a number of LSP scholars and researchers (e.g., Dudley-Evans & St John, 1998; Hall, 2013). Action research is a practice-changing practice (Kemmis, 2009) and assists the teachers with developing awareness of their cognitions and practices. While the importance of action research for LSP practitioners is, pedagogically and empirically, recognizable as a form of inquiry to inform their awareness (Kemmis et al., 2014), this recognition may not be apparent in the cognitive make-up of the practitioner and thus needs consideration. One reason for the under-exploration of action research in LSPTE may be the expertise required to run action research projects. Indeed, not all LSP practitioners may be sufficiently familiar with the knowledge of research methodology in action research as all the reviewed studies were run and supervised by experienced researchers.

What seems to be lacking in the reviewed studies of this category is the extent to which the execution of action research has resulted in sustainable impacts. Making practitioners aware of the opportunities action research provides could bring about change in the cognition of those LSP practitioners who see few advantages for doing action research or capitalize on its short-term impact. In addition, awareness-raising can assist the practitioners with gaining insights into their own cognition and practice and aid in developing a critical stance toward their career, which could be extended beyond the carried-out program. One useful technique in this regard would be using narratives in which "people make sense of their lives through the activity of storytelling" (Benson, 2014, p. 155) in the process of practitioner familiarity with and execution

of action research, also continued beyond the empirical endeavor to conduct further cycles of action. Additionally, exploring change during teacher education programs, as reported in Banegas (2018), would yield productive contributions. Yet, sustainability in cognitive and practical change of teachers-researchers has received very little attention in the literature.

Cognitions

LSP practitioner cognitions (and the various terms related to cognition [Pajares, 1992]) has been the most studied area among all the categories (26 studies specifically exploring cognitions). Six studies have been conducted in Iran (Alavi & Dashtestani, 2015; Bahrami et al., 2019; Baleghizadeh & Shakouri, 2017; Khany & Tarlani-Aliabadi, 2016; Sajadi & Oghabi, 2011; Tavakoli & Tavakol, 2018), two studies in Taiwan (J. C. Huang, 2013; Tsou & Chen, 2014), and other contexts each covering one study (Alexander, 2012; Bocanegra-Valle & Basturkmen, 2019; Celani, 2008; Cowling, 2007; Darwis & Wanci, 2019; Dashtestani, 2019; Davis, 2019; Forey, 2004; Forey & Cheung, 2019; Górska-Porceka, 2013; Hidayati, 2018; Jensen & Thogersen, 2011; Lear, 2019; Li & Wang, 2018; Pecorari et al., 2011; Somblingo & Alieto, 2019; Stapleton & Kin, 2019; Xu & Sun, 2019). Studies of this category have utilized various data collection techniques including questionnaires, interviews, teacher-produced materials, and document analysis. Although this area of LSPTE has been studied more than others, the studies of this category have dominantly been one-shot, attending less to cognitive development of practitioners.

Alexander (2012, p. 108) argues that "much research into teacher beliefs has been based on a general CLT [communicative language teaching] paradigm, which differs from EAP teaching." On this ground, as similar data collection methods have been utilized in most of the reviewed studies, future research may use other techniques to build a knowledge base guided by scholarship in LSP. One such technique could be using scenario prompts. Scenarios, which elicit teachers' previously-held cognitions of specific situations, have been used in mainstream teacher education studies (e.g., Kim & Klassen, 2018), yet this technique has received inadequate attention in language teacher education research, much less in LSPTE. The rigor of scenarios to elicit practitioners' interactive cognitions and bring to the surface their spontaneous utterances as realizations of their implicit theories can assist with better identifying the beliefs of LSP practitioners, particularly the entrenched ones.

Another technique, with its roots in arts-based research, would be using images which, along with other data collection techniques, can provide a deeper understanding of practitioners' cognitive complexity, multiplicity, and transformability. Borg et al. (2014) have used this technique in general language teacher education, and it can be utilized in LSPTE to illuminate practitioners' cognitions and how/whether they change over time. Images could also be of practical rigor in studies exploring the impacts of a teacher education initiative on pre-service LSP practitioners to track the change or lack thereof of cognitions. Since pre-service practitioners are in the initial process of their professional itinerary and may not be able to provide a thorough picture of their cognitions, for example in interviews, due to the social pressure it poses on the participant (Poynter, 2010), using images could ease the process of expressing themselves. Moreover, utilizing images serves as a conduit into the extent to which LSP practitioners, both pre-service and in-service, regard language and content in their schematization, which could function as supplements to teacher education initiatives.

Cognitions and Practices

Ten studies were found to have addressed LSP practitioners' cognitions and practices (Alimorad, 2019; Atai & Dashtestani, 2013; Atai & Fatahi-Majd, 2014; Atai & Taherkhani, 2018; Baker & Burri, 2016; Farrell & Yang, 2017; Helmer, 2013; Soodmand Afshar & Movassagh, 2016; Tan & Lan, 2011; Y. Huang, 2017). The studies of this category have been presented differently from the categories of 'cognitions' and 'practices.' In other words, 'cognitions and practices' focuses on the investigation of both cognitions and practices in the reviewed studies, while 'cognitions' and 'practices,' as separate categories focus on the exploration of cognitions only and practices only in the studies. Diversity of context is observed across the studies, all of which have been carried out in the past seven years. This indicates a mounting attention to the integrated study of practitioners' cognitions and practices.

Current conceptualizations of (language) teacher education accentuate the dynamicity of teacher cognition and practice embedded within the idiosyncrasies of the teaching context (e.g., Burns et al., 2015; Freeman, 2018). This proposition is of higher appropriacy in LSP due to the constant synergy and intricate nexus between language and content on the one hand and the varying needs of students in each particular course.

Such issues require LSPTE researchers and practitioners to pay more attention to classroom occurrences and their reverberations in relation to the cognitive and pedagogical paths of practitioners. In this regard, exploring practitioners' cognitions and practices of different skills and (sub)skills in an *integrated* manner is lacking among the studies of this category. However, it is likely to assist the practitioners with better managing the instructional practices and creating balance between the extent to which the practitioners should regard content and language in a given class.

As this category encompasses both cognitions and practices, one potential research direction may be investigating LSP practitioners' interactive cognitions. This agenda parallels with the current understandings of practice, which emphasize that teachers' actions should be interpreted with "reference to the socio-psychological contexts" (Borg, 2015, p. 17) in which they occur. While the mentioned research directions have received investigative attention in general language teacher education – especially the correspondence between beliefs and practices (for a review see Basturkmen, 2012), their exploration in LSP merits more attention. As Belcher (2006, p. 135) argues, "unlike many other educational practices, ESP assumes that the problems are unique to specific learners in specific contexts and thus can be carefully delineated and addressed with tailored-to-fit instruction," giving primacy to the importance of heeding peculiarities in LSP practice. Capturing the uniqueness of LSP-related cognition and practice is possible using techniques such as stimulated recall interviews (SRIs), which can also assist with unpacking LSP practitioners' pedagogical reasoning in order to unearth the implicit and explicit cognitive factors feeding their practices.

Practices

This category involves studies that have only dealt with LSP practitioners' practices. Three studies were found (Heron & Webster, 2018; Kuzborska, 2011; Ro, 2016), which have utilized observational instruments to explore the practices. These studies have dealt with the participating practitioners' practices, and cross-comparison of practice between teachers has been scarcely investigated. While coupling teachers' practices with the investigation of their cognitions would yield a more thorough understanding of the multidimensionality of their work, investigating their practices per se would, in turn, be a conduit into understanding the complexity of teachers' work. As the significance of context in shaping practice is by now widely acknowledged (e.g., Burns et al., 2015), further scrutiny of practice provides the opportunity to launch professional development initiatives that can be geared to the contingencies of practice in light of contextual idiosyncrasies.

In addition to the need for more longitudinal studies of practitioners' practices, one prospective research line would be using the contributions of classroom discourse (e.g., Heron & Webster, 2018). What makes classroom discourse of direct relevance to LSP is addressing it from various social, critical, psychological, and cultural perspectives, areas that have been probed less in the reviewed studies, undergird the current understandings of educational research, and would add to the rigor of the studies of this category. Besides the investigation of the complexity and multiplicity of language-in-use in LSP classes and the way communication patterns are initiated and retained through analytical techniques such as Conversation Analysis (CA), research may also probe the extent to which talk-in-action aligns with the beliefs of practitioners. Additionally, exploring the way practitioner talk initiates and moves the classroom flow forward via, for example, time-based field notes (Richards & Farrell, 2005), as an agenda to grasp a fuller picture of classroom interactions, could provide a transparent picture of how focus on language and content is addressed by practitioners.

Content and Language Teachers

Studies of this category have focused on the presence of both content and language teachers in the study, either the cooperation between them or a comparative analysis of their contribution (Moore et al., 2015; Northcott & Brown, 2006; Willey & Tanimoto, 2012). Among the studies of this category, the last study dealt with longitudinal effects of collaboration on the teachers' methodological development, and the other two studies addressed linguistic issues. However, methodological triangulation has been less-attended in the studies of this category. Within this line of thinking, Dudley-Evans and St John (1998) envisaged the significance of cooperation between content and language teachers as cooperation and collaboration wherein "the fullest collaboration is where a subject expert and a language teacher *team-teach* classes" (p. 16, *italics in original*).

Regarding the collaboration between content and language teachers, it appears that the studies reviewed did not focus on how the collaboration could be extended to methodological considerations (Northcott &

Brown, 2006; Willey & Tanimoto, 2012) and how the occurring tensions could be resolved (Moore et al., 2015). As LSP teachers worldwide receive little systematic preparation in the methodology of teaching, one agenda as to the abovementioned limitations, would be utilizing a critical friendship initiative, as a small-scale, effective technique in negotiating and reflecting on various LSP-related issues. Critical friendship happens when another person (usually a teacher) comments on a teacher's practice aiming to develop their reflectivity (Farrell, 2001). In this sense, the word 'critical' "refers to separating teaching into its parts, and discerning how those parts work together" (Farrell, 2001, p. 369). Two corollary lines would be using mentoring (e.g., Karimi & Norouzi, 2017) and peer observation (Shousha, 2015) in studying LSP practitioner collaboration. Practitioners' evaluation of their peers has the advantages of bringing to the fore their own analyses of practice and the set of criteria they keep in mind to analyze practice, in addition to its possible impacts on implementing the effective techniques in their own practice.

Professional Development

The studies in this category exposed the LSP practitioners to teacher education initiatives and their corresponding impact(s) on the practitioners. Three studies were found, which were conducted in the U.S. (Schleppegrell & de Oliveira, 2006), Iran (Rajabi, Kiany, & Mafsoon, 2012), and Croatia (Margić & Vodopija-Krstanović, 2018). One reason for the low number of studies of this category might be the lack of LSPTE programs that can provide a platform to conduct research on practitioners. Currently BALEAP is "the only systematic attempt to articulate and frame the competencies required of practitioners and provide formal recognition of EAP practitioners' development" (Ding & Campion, 2016, p. 549). Thus, there is a need for more institutions specializing in preparing teachers, enacting and executing LSPTE-related legislations, and initiating directions for systematic inquiry.

While the difficulties of conducting research on LSP practitioners – besides the arduous nature of persuading the practitioners to participate in teacher education programs – are acknowledgeable, a wealth of ideas could be investigated in such programs. One area of work that is immediately connected to LSP, yet underexplored, may be investigating how practitioners view and do needs analyses (e.g., Sešek, 2007) and how a teacher education program influences their needs analysis-related cognitions and practices. As needs analysis is of central significance in LSP and helps stakeholders to "know what we did not know – that is, we would know what to ask, not waste our clients' or students' time, appear much more professional, know how we should analyse the data" (Dudley-Evans & St John, 1998, p. 123), familiarizing practitioners with its underpinnings and conduct is likely to enable them to obtain a detailed understanding of addressee identity in order to gear instruction to their needs more appropriately.

Genre

Four studies were found to have contributed to LSPTE literature with a genre-based approach as their focus (Gebhard et al., 2013; Hedcock & Lee, 2017; Negretti & Kuteeva, 2011; Worden, 2018). An interesting aspect of the studies of this category is that they have all explored how teachers develop their understanding of genre, either as a function of research interventions or as motivated by their practices. These studies have employed multiple data collection instruments and their results attest to the influential nature of conducting the study in the related course. The studies of this category have primarily been conducted in the context of the U.S. Besides the need for further genre-related LSPTE research from other contexts, future lines of research may take into account viewing classrooms as communities of practice, motivated by the definition of genre as "socially-recognized strategies for using language to respond to various reoccurring situations within a given culture or community" (Worden, 2018, p. 13) or "the ways in which texts and works of art are structured by their creators and received by readers and viewers (Shaw, 2016, p. 243).

Empirical explorations of genre in LSPTE may rely on Berkenkotter and Huckin's (1995) typology of genre, consisting of curricular, pedagogical, and classroom genres as a broad conceptualization. Although the literature is not bereft of studies investigating practitioners' understanding of curriculum (e.g., Tavakoli & Tavakol, 2018), the connection of curriculum as embodied in syllabus-related modules and further implemented in methodology in a macroscopic caliber has received little attention. Such studies are politically insightful to inform policy-makers of the merits and demerits of the curricula and educationally constructive to discern the effectiveness and practicality of the curriculum.

Of direct relevance and as a pedagogical genre could be the application of teacher portfolio in research on LSP practitioners. Being "a collection of documents and other items that provides information about different aspects of a teacher's work" (Richards & Farrell, 2005, p. 98), teaching portfolios can serve as a solid

repository that are *created* by practitioners, function as *community-oriented strategies* as occurring in the practitioners' professionalization, and can be *received* by practitioners of other contexts to use in their own professional career. One methodological novelty in analyzing practitioner portfolios as a genre could be using a microgenetic design (Vygotsky, 1978) to delineate the developmental path of practitioners and their functioning over the course of instruction. Practitioner portfolios and their microgenetic analysis could also be useful in genre-based instruction courses or in particular writing courses.

Critical Incidents

Two studies have focused on the problematic situations LSP practitioners face (Atai & Nejadghanbar, 2017; Wu & Badger, 2009). Terminologically speaking, although the term 'critical incidents' (CI) has not been employed in the conduction of the latter study and similar terms by Romano (2006) as 'bumpy moments' and Schon (1983) as 'surprises' – connoting the same construct – have been used in the literature, 'critical incidents' has been used as the umbrella term in the present study. In spite of the distinction between positive and negative teaching incidents as recognized in the literature (Tripp, 1993), the two studies reported here have come up with the prevalence of negative incidents. Further research should address the possible teaching high incidents of LSP practitioners as well as the contribution of other participants (policy-makers and students) to the occurrence of CIs. Additionally, a line of research that seems to be lacking in LSPTE and could have contributed to the rigor of the reviewed studies is the nexus between CIs and practitioners' practices in order to delineate how they influence each other.

Basturkmen (2014) argued that "LSP teachers ... generally face an array of work needs, all of which require knowledge and skills and presumably some form of teacher education" (p. 19). Such needs and the bulk of considerations in LSP may thus culminate in increased difficulties for LSP practitioners. It should be noted that the exploration of the challenges of LSP from the perspective of practitioners has been the focus of other research, too (e.g., Tavakoli & Tavakol, 2018). Exploring classroom challenges including pedagogical and non-pedagogical ones via video-recording could be one relevant direction of research. Hockly (2018) posits that video-viewing in teacher education has two agendas. The first one is a developmental or formative agenda in which teachers analyze their own practices, and a normative agenda in which effective practices are modelled for the teachers. Both types could be employed to deal with practitioners' challenges. As to the former, self-observation could mainly aid with identifying those practical challenges that are practitioner-driven and thus reduce them in forthcoming classes. Regarding the latter, the number of challenges could diminish through showcasing good teaching practices, especially if used in teacher education programs. Such initiatives become beneficial through their modelling nature in that when practitioners face similar challenges, they have a toolkit of techniques at their disposal to deal with the situation.

Identity

Two studies have addressed LSP practitioner identity (Atai et al., 2018; Tao & Gao, 2018). These studies have been conducted in Iran and China, respectively, in university contexts. In the first study, the researchers explored nine practitioners' perceptions of role identities via narratives and interviews, analyzed inductively. The results indicated eight role identities the practitioners narrated. In the second study, identity construction and negotiation of eight practitioners were investigated utilizing life history interviews with a focus on learning, teaching, and work experiences, analyzed using a coding scheme. The results of the study indicated the complex nature of identity negotiation and construction stemming from epistemic, organizational, and pedagogical influences on the way practitioners' identity is constructed.

The dynamic, kaleidoscopic, and complex nature of identity seems to be amenable to being studied in a developmental manner. Since teachers' identities are influenced by community members, personal histories, and contextual issues (Martel & Wang, 2015), research can delve into its complexity in relation to various surrounding factors. In this sense, more sophisticated studies could be conducted adopting a sociocultural perspective (Lasky, 2005) that shows how practitioners view themselves in connection with others and in turn influence them. Identity is also influenced by teachers' sociocultural backgrounds and their current conceptualizations of career functioning (Yazan, 2018), so exploring practitioner agency and positioning could open doors to a better understanding of the complexity of their work. In addition, examining the contributions of a dynamic systems theory in LSP practitioner identity research could yield productive results, with its ecology (the interplay between language and content), dynamism (the constantly changing face of practitioners' practice), change (the varying nature of LSP from one course to another), and

unpredictability (different and unpredictable needs of different groups of students) attributes (Burns et al., 2015) being the focus of inquiry.

Language Change

There are two studies that have focused on changing the language of instruction from L1 to English (Airey, 2011; Thøgersen & Airey, 2011). In the study by Thøgersen and Airey (2011), the lectures held by a Danish lecturer were investigated in Danish and English in a university context. The study followed a two-tier staging in the first part of which it was found that "the lecturer takes 22% longer to present the same content in L2 compared to L1, and that the lecturer speaks 23% more slowly in L2 than in L1" (p. 209). In the second part, the researchers qualitatively and then descriptively analyzed the mean number of syllables used in the lectures. The results demonstrated rhetorical variation in Danish and English in that more repetitive and formal constructions were observed in English as compared to Danish. In the other study, Airey (2011) investigated 18 Swedish university lecturers' experiences of lecturing in Swedish and then English in a twelve-week course (video-recorded) and discussing the experiences in an online platform. The study also explored the lecturers' experiences via interviewing 12 of them. The results were presented in nine themes including short notice, no training, more preparation, less detail, less flexibility, less fluency, no correction, few differences, and confidence boost. The authors of both studies state that the generalizability of their findings remains problematic due to the specificity of the topic of investigation. In this regard, one generalizable and at the same time context-sensitive empirical direction would be exploring students' perceptions of changing the language of instruction. Exploring how students view their learning as developing in different classes could also provide the practitioners an understanding of their decision-making, at least at the level of language of instruction. Furthermore, probing the consonance/dissonance between practitioners' and students' perceptions in the form of comparing practitioners' perceptions of their instruction in either language and students' perceptions of the practitioners' instruction could not only be empirically insightful, but also enables the practitioner to approximate their language of instruction to students' needs.

Conclusions and Implications

The present study aimed to provide a review of the studies done on language for specific purposes teacher education over the past 19 years. Ten categories emerged from the 60 reviewed studies. The body of knowledge presented here indicates the intermittent nature of research in LSPTE and the limited empirical attention to LSP teachers. Indeed, while much may be known about LSP practitioners experientially and contextually, little is known about them empirically. However, it is promising that the trajectory of the studies indicates an increased attention to LSP teachers. Nonetheless, since Dudley-Evans and St John's (1998) conceptualization of teacher roles, research has not moved forward adequately to document LSP teachers' function in materializing these roles.

What is yielded from further research on LSPTE would be more productive if research explores whether and how the field could differ from mainstream language teacher education. This may assist us with developing a discourse of/for teacher education that is specific to language for specific purposes. Content should clearly be part of this discourse, as Dudley-Evans and St John (1998) rightly underscored the significance of content in LSP as, "[t]he notions of 'carrier content' and 'real content' are essential to the understanding of ESP work and to an understanding of motivation in ESP" (p. 11). On this ground, a definition of LSPTE from an empirical vantage point would help to claim the distinctness of the field in recognizing the importance of content: Studying practitioners' (subject-specific) cognition(s), the way they practically address the interplay between content and language, and the multiplicity of factors influencing and being influenced by their professionalism and professional career. This distinctness is important and has clear implications for educating the teachers, as it seems to be easier, and possibly more effective, to educate subject-specific practitioners in the methodology of language teaching than to insist on educating language teachers in the content of the LSP subject.

Along the above lines of thinking, a wide array of issues could be empirically investigated in order for LSPTE to develop further. With regard to LSP practitioners' cognitions, little research has been done on, for example, practitioners' (inter)cultural awareness, their personal, practical, pedagogical (content) knowledge, their reflectivity and self-efficacy, and their beliefs about how technologies could be integrated in LSP practice, considering the changing face of language teachers and teaching over the past decades. Also, the concept of teacher emotion in LSP has been a less-attended area, which has recently gained increasing momentum in general language teacher education research. Additionally, the exploration of LSP

practitioners' needs should be the focus of more inquiry (e.g., Sešek, 2007), as well as the reflectivity of LSP practitioners, which seems to be the 'lost paradise' of research in LSPTE. Investigating the extent to which LSP practitioners are familiar with the principles of contemporary theories and approaches of language teaching (e.g., task-based language teaching) and the extent to which their practices are congruent with those ideas could also be venues for research in LSPTE.

The present review is limited in some respects. First, the present review was delimited to the past 19 years. Further scrutiny is needed to track how the field expanded in earlier decades and delineate how/whether a shift of focus has occurred over time. Second, dissertations and book chapters were excluded from the present review. Since Campion (2016) also holds that "a significant proportion of [LSPTE-related studies] are from unpublished Masters dissertations" (p. 61), incorporating this body of knowledge into the review would add to its rigor and provide a more solid understanding of LSP teaching and teacher education. Third, despite the existence of a number of journals specializing in LSP, the present review was delimited to studies published in Scopus-indexed and SSCI-indexed journals. Considering all these limitations and those of the proposed research directions (notwithstanding their directness), what comes up from the body of knowledge is that LSPTE, as a multidisciplinary area of inquiry, is spreading its wings and we will witness more LSPTE-related theorization and wider lines of research in the future.

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