

The learning organization and organizational learning in the public sector

A review and research agenda

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The learning organization and organizational learning in the public sector: *A review and research agenda*

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Abstract

Purpose – A new research agenda is proposed for the theories of “organizational learning” and the “learning organization” in relation to the public sector. The research agenda can be utilized by researchers to make explicit accounts of how and where the results from their studies advance the current state-of-the-art in the intersection between public sector and organizational learning and/or the learning organization.

Design/methodology/approach – A combined systematic and bibliometric review methodology is applied based on research that has been published in the last three decades.

Findings – Through an analysis of 238 journal publications obtained from the Scopus database, we determine the leading authors, countries, highly cited papers and take the stock of current literature. Similarly, by analyzing papers published between 2010 to 2020, we identify current tendencies and emerging themes of OL and LO in the public sector and offer avenues for future research.

Originality/value – This is potentially the first, fully refereed study published reporting on a bibliometric and a systematic review of organizational learning and learning organization in the public sector.

Keywords Organizational learning, the learning organization, bibliometric review, public sector, systematic review, literature review

Introduction

The literatures on organizational learning (OL) and the learning organization (LO) both have long traditions and impactful contributions to research with a private sector focus (Huber 1991; Bapuji and Crossan, 2004; Argote, 2011; Örtenblad, 2001, 2019a). Although OL and LO are different theoretical constructs with distinctive units of analysis, they have been utilized as synonyms back in time (see, e.g., Örtenblad, 2001) and are still sometimes utilized as such (e.g., Chien, 2016). A clear distinction between the two constructs is made by Tsang (1997), clarifying that OL refers to

the study of learning processes of and within organizations, and that a LO is an ideal type of entity that has the capacity to learn effectively and prosper¹. In this paper we investigate via a combination of a bibliometric and systematic review (Anand *et al.*, 2021a, 2021b) how both the OL and LO literatures to date have connected to the public sector. The choice to include both constructs in the review is to make an inclusive contribution that investigates the *big picture* of 1) how the current state-of-the-art is related to studies of either OL or LO in the public sector, and 2) how the state-of-the-art is related to integrated studies that combine OL and LO in the public sector. A review study with such dual focus on OL and LO has to our knowledge not been completed before in the public sector context. This warrants a broad investigation and synthesis which is presented in this review. To clarify what we mean by *public sector* we rely on following definition: “the public sector consists of governments and all publicly controlled or publicly funded agencies, enterprises, and other entities that deliver public programs, goods or services” (Dube and Danescu, 2011, p. 3). A *bibliometric review* reveals the spread of ideas and theories (Benders *et al.*, 2007; Anand *et al.*, 2021a, 2021b) and a *systematic review* documents, evaluates and synthesizes all relevant research on a specific subject (Petticrew and Roberts, 2008; Easterby-Smith *et al.*, 2012). With the Anand *et al.* (2021a, 2021b) methodology these two types of review are integrated in this study. The premise is that it is interesting to explore how research on OL and LO has been applied in public sector settings, and how a public sector focus has affected the theoretical development within this empirical context. Underlying this premise is an argument, that public sector organizations are different compared to private sector organizations (Røste and Miles, 2005; Brix, 2017) e.g., because of highly bureaucratic and formalized structures (Werkman, 2009) and the “lack of competition, the influence of politics,

¹ Many definitions of OL and LO have been theorized and developed during the last decades: see examples in appendix 1. Please also see Table 1 and Figure 3 for further information about how relevant papers qualify as studies of OL and/or LO in the public sector and the criteria for inclusion in this study.

and the multiplicity of stakeholder interest as the primary distinguishing characteristics (...)” (Choi and Chandler, 2015, p.142). Although these differences could imply that OL and LO research would be less relevant in the public sector compared to the private sector where they originated, this is not the case: “organizational learning is seen to be particular suited to the public sector due to high levels of professionalism and learning through collective action” (Walker, 2014, p. 26). Similar arguments are given to research on LO in the public sector (Glennon *et al.*, 2019; Kools *et al.*, 2019). Following this line of argumentation, it seems appropriate to take stock and review the OL and LO literatures and their manifestation in the public sector.

Initial search and preliminary tendencies

The importance of OL/LO in the public sector can be reflected on the distribution of publications in the last decade. For instance, using the search terms “organizational learning” and “learning organization” in combination with the search term “public sector” in the title-abstract-keyword section of the dropdown menu in the Scopus database, we find that the number of OL and LO publications related to the public sector has been slowly increasing in the last decade. Figure 1 shows the popularity of the distribution of publications of the OL/LO literature related to the public sector obtained from the Scopus database between 1980 to 2020. We see a spike in the publications starting to rise in 2009.

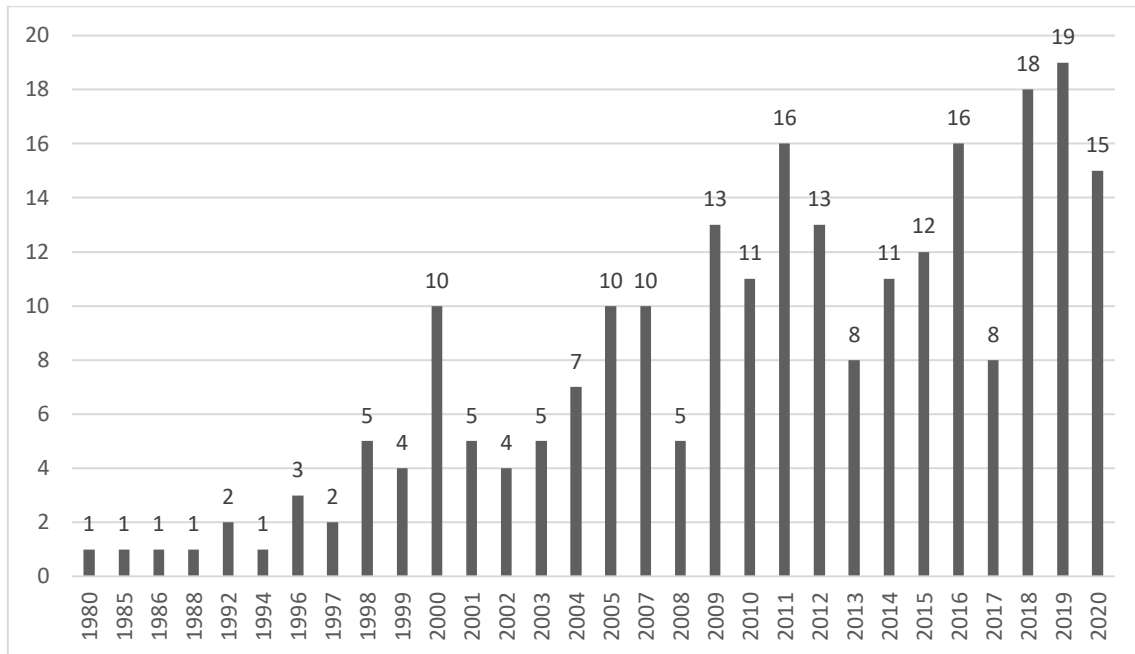


Figure 1: Sample distribution of documents published on OL/LO between 1980 to 2020 (N = 238)

With reference to Figure 2, it is noticeable that the public sector focus on OL/LO has had most attention in the domain of “Business, Management and Accounting” and “Social Sciences”.

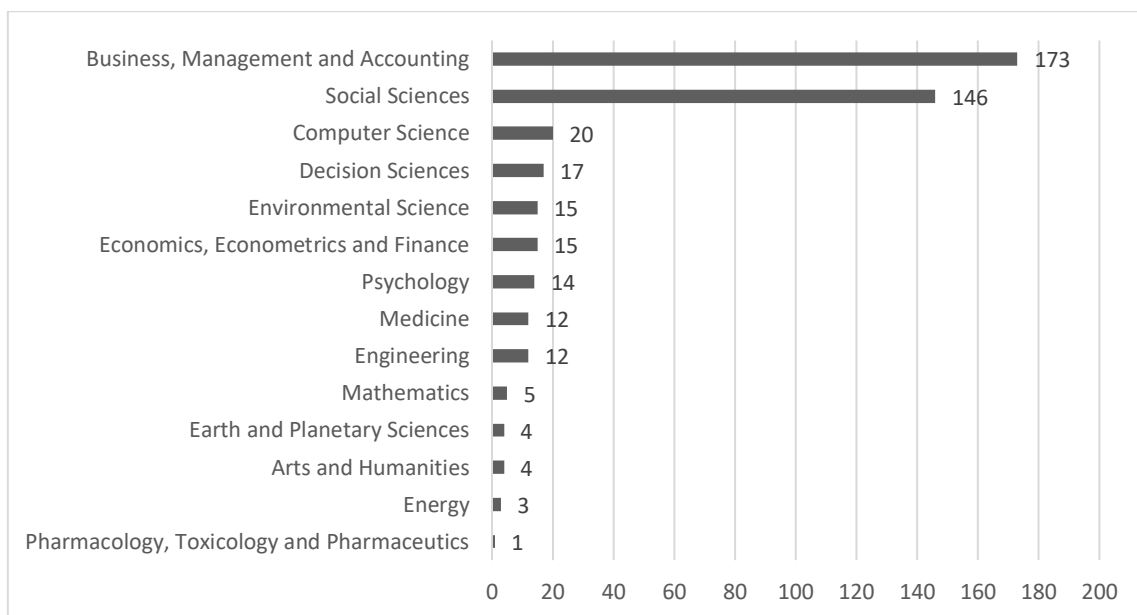


Figure 2: Sample distribution of OL/LO in public sector published in different subject areas

Although OL studies in the public sector can be found three decades back (Lovell and Turner, 1988) and the same goes for the LO literature (Maruchi, 1985) there is a scarcity of reviews oriented towards the public sector. The argument is that our search did not yield any result in finding a systematic review or bibliometrics considering either OL, LO or OL/LO in the public sector context since 2010 (Rashman *et al.*, 2009; Kennedy and Burford, 2013). Such lack of overview for more than a decade can lead to a lack of clarity of the fields evolving influence on the public sector and *vice versa*. A brief look into these two reviews— which are both based on OL research —reveals the following important insights. Rashman *et al.* (2009) argue, that theoretical advances in OL theory related to the public sector is lacking behind compared to the advances within the private sector. They argue that “in contrast to private organizations, the argument for why organizational learning is critical to success in public organizations is under-developed (...) as is the contributions into public organizations” (Rashman *et al.*, 2009, p. 486). Their point is that public sector organizations represent contexts that are distinctive from private organizations and even that different sectors within the public sector might represent different contextual arenas for OL theory. Therefore, Rashman *et al.* (2009) call for empirical research on OL in the public sector to create context specific theoretical advances that better fit the public sector instead of mechanically assuming that OL theories developed in the private sector automatically fit the public sector (Rashman *et al.*, 2009). Similar to this, the review by Kennedy and Burford (2013) stresses that the literature on OL related to the public sector is scarce. At this point in time, their review demonstrated that scholars were increasingly beginning to become interested in understanding the nature and processes of learning and less focused on “how to” prescriptions of OL. Kennedy and Burford’s (2013, p. 166) analysis of the literature e.g., also shows that “(...) public sector literature lags behind contemporary theory and research on organizational knowledge and learning [compared

to theoretical advances of OL in the private sector]”. They argue that the understanding of how knowledge that is created on different levels in public organizations “may have an impact on organizational activities, processes and outcomes is absent in the public sector” (Kennedy and Burford, 2013, p. 165). These earlier insights on OL/LO in the public sector and the fact that a decade has passed since these conclusions were made warrants a new review study (Brix, 2021). This argument can be supported by Lenart-Gansiniec and Sułkowski (2020, p. 322) who state that “despite the notably increased body of research on organizational learning in public organizations, it is interesting to note that research results are still ambiguous and fragmented (...), and many questions remain open” By relying on replicable and auditable bibliometrics methods (Anand *et al.*, 2021a, 2021b) our ambition with this study is to change these tendencies. We do so by providing both an overview of OL/LO research in the public sector for the last decade (2010-2020) and by making explicit a research agenda that concretizes the “many open questions”. Following research questions guide our review:

- RQ1.** Which countries lead in (the amount/number of scientific) works, published in the field of OL/LO in the public sector?
- RQ2.** Who are the leading authors in the context of OL/LO in the public sector?
- RQ3.** Which are the leading institutions/affiliations of OL/LO research in the public sector?
- RQ4.** What are the most cited articles of OL/LO in the public sector? What are their contributions?
- RQ5.** What are the keywords and themes used to study OL/LO in the public sector?
- RQ6.** What are current tendencies and emerging themes from 1) OL/LO combinations in the public sector, LO in the public sector, and OL in the public sector?

In the findings section, we start by responding to RQ1-5 in a *combined review* of OL/LO in the public sector. Hereafter, we respond to RQ6 providing answers to the subject specific literature. The study continues as follows. First, we present the methodology. Then we present the

findings of our review responding to RQ1-5 in the first sub-section, and RQ6 in the second subsection. Finally, we conclude the review by summarizing the study's findings and we present a research agenda addressing future needs for OL and LO research in the public sector.

Methodology

The five-step process suggested by Anand *et al.* (2021a, 2021b) and Tranfield *et al.* (2003) was applied to avoid the pitfalls of relying on computerized bibliographies for our combined bibliometric and systematic literature review. Such pitfalls are e.g., missing out on important theoretical contributions because of ill defined search terms (Benders *et al.*, 2007) and/or including research that has the search term as key word (label) but not as its actual theme (content). The five-step process includes the following: 1) database selection; 2) keyword selection (search term) for the search process; 3) document inclusion and exclusion criteria; 4) coding the selected documents using software or excel; and 5) synthesizing and interpreting the results. An illustrative summary of the methodological approach is given in Figure 3 and unfolded below.

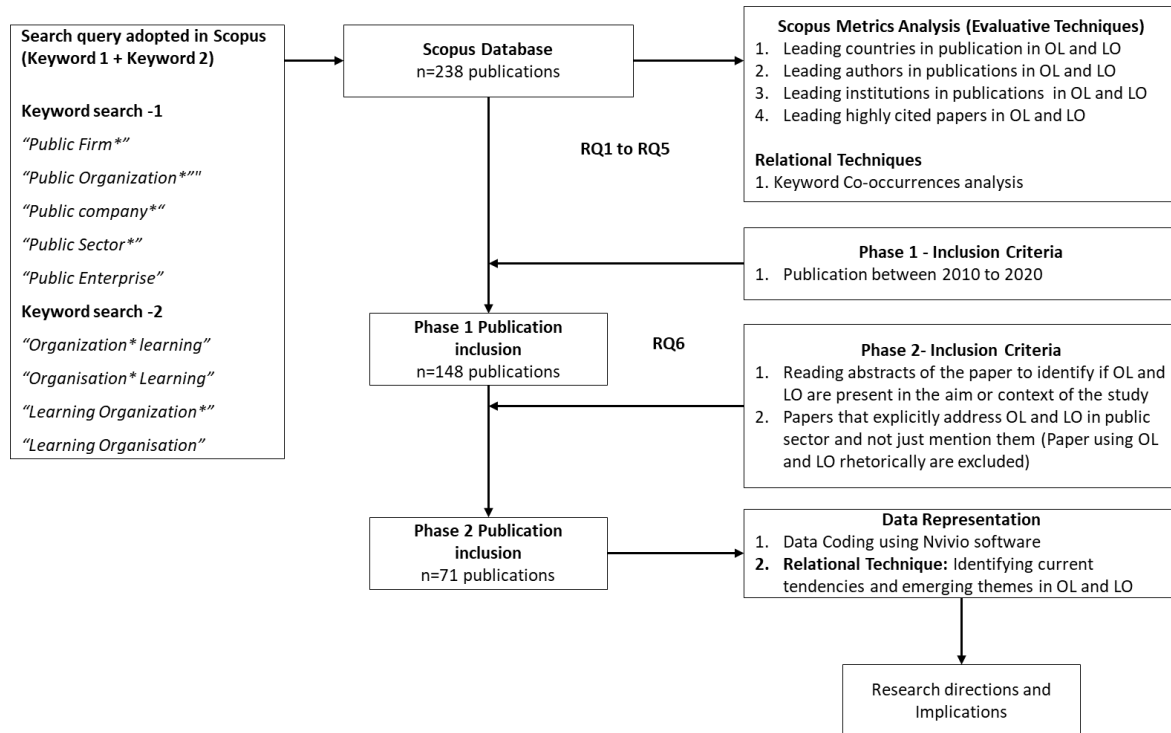


Figure 3 Methodological summary

First, we conducted a comprehensive search (including, the identification of keywords (search terms), construction of the search strings and selection of the databases, among other processes) according to the guidelines of Anand *et al.* (2021a, 2021b). As part of our data collection, we selected Elsevier’s ‘Scopus’ database to extract all relevant publications from various indexed academic journals published in English language (Benders *et al.*, 2007)². According to Benders *et al.* (2007, p. 817) processes of data collection for review studies “should ideally find all relevant references”. This ideal of finding all relevant references is however easier done in theory than practice when searching for research on OL and LO in the public sector from all over the world. Many relevant studies are most likely published in national languages which

² Scopus is a convenient, widely used, and robust database when compared to other databases such as Web of Science (WoS) and Google Scholar (e.g., Bosman *et al.*, 2006). Furthermore, a comparison of Scopus and WoS journal coverage revealed relatively small number of journals indexed exclusively in WoS (Mongeon and Paul-Hus, 2016), and approximately 97 percent of WoS journals are also included in Scopus. Thus, Scopus has established a compelling reputation for conducting systematic reviews of the literature (Centobelli and Ndou, 2019; Anand *et al.*, 2021a).

we do not understand and they are consequently (and unfortunately) not represented in our review. Another important limitation and critique to our methodological approach is that we only include peer-reviewed journal articles in our search. This implies that we consequently excluded academic books, book chapters, conference papers and editorials for further analysis (Anand *et al.*, 2021a, 2021b). The argument for including only peer-reviewed academic journal articles was inspired by Thyer (2008), Mayden (2012) and Adams *et al.* (2017). They argue that peer reviewed journal papers represent the highest methodological standard and are forefront in the contributions, thoughts, and opinions of scholars compared to e.g., conference papers, books, and book chapters. Based on this premise, our study reports on studies of OL and LO of the highest international standard while acknowledging the fact that relevant research publications related to OL and LO in the public sector are not included (Ibid). A keyword search string was made to extract publications from the Scopus database (see Table 1).

Search terms	Publications Extracted
(TITLE-ABS-KEY ("Organization* Learning" OR "Learning Organization" OR "Organisation* Learning" OR "Learning Organisation") AND (TITLE-ABS-KEY ("Public Organization*" Or "Public Firm*" OR "Public Compan*" OR "Public Enterprise" OR "Public Sector*")) AND (LIMIT-TO (SRCTYPE,"j") OR LIMIT-TO (SRCTYPE,"ar") OR LIMIT-TO (SRCTYPE,"English")))	238

Table 1: Keyword search string

An important critique to the search terms applied is that we have utilized general terms such as e.g., “public organization”, “public firm”, “public sector” (see Table 1 for further search terms), but that we have not gone into the specific sectors within the public sector such as e.g. “higher education”, “healthcare”, and “social work”. This implies that important research on OL/LO *within the public sector* that do not have our search terms explicitly stated in the title, keywords

or abstract is not included in our study. We argue however that our study is representative for the general public sector, since the studies included in our review report on many different sectoral areas and managerial themes within the public sector.

With these decisions and important limitations we take the stock of the literature and study the trends based on the 238 publications found in our Scopus search. We adopted bibliometric methods combined with VOS-viewer freeware to map the field (Walsh and Renaud, 2017). Accordingly, to answer our research questions, we adopted two bibliometric techniques, namely: 1) evaluative techniques (Gaviria-Marin *et al.*, 2018) and 2) relational techniques (Benckendorff and Zehrer, 2013). *Evaluative techniques* include productivity measures (i.e. number of papers per academic year / author, number of papers by country / affiliated institution) and impact metrics (the total number of citations, number of citations per given period / author, etc.). *Relational techniques* include co-citation analysis, co-authorship, co-word/keyword analysis, and bibliographical coupling analysis. Relational techniques help investigate the discipline's theoretical foundations and chart emerging trends (Anand *et al.*, 2021a). To answer research questions RQ1-4, we used Scopus metrics as an evaluative technique. The Scopus database provides distinctive features to classify publications in a field based on the following metrics 1) leading citations, 2) leading authors, 3) leading institutions, 4) leading countries and 5) leading journals (Anand *et al.*, 2021a).

Hereafter, to answer research questions RQ5-6 we used two relational techniques: First identifying the important keywords, that help in exploring research hotspots/themes. To enable this we performed a co-occurrence of keyword analysis (e.g., author/index keywords). Then, secondly we included central publications for further analysis by following the suggestions by Anand *et al.* (2021a, 2021b) concerning the inclusion/exclusion of publications. A threshold point can be chosen as a proxy in a bibliometric dataset where the publications were seen to

‘spike’ in each period. This produces a broad sample to investigate recent developments in the field. From Figure 4, we can see that the number of publications significantly increased in 2009, indicating the growing academic interest in OL/LO research in the public sector. To follow the suggestion from Anand *et al.* (2021b), the timeline between last 5 to 10 years in the bibliographic dataset is sufficient to chart the emerging trends and thus, we included papers published between 2010-2020 in our threshold, and got a dataset of 148 publications.

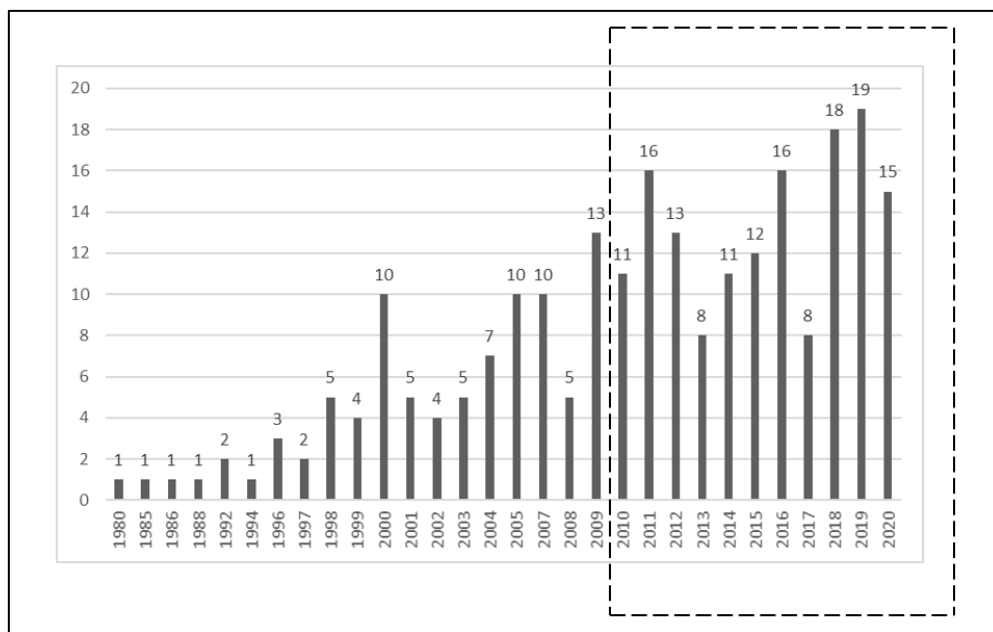


Figure 4: Number of publications in the dataset per year

Finally, to include or exclude publications from the obtained 148 publications, we adopted the following criteria to sieve out publications that were not relevant: 1) Papers using OL/LO ‘labels’ as keyword but without having an actual OL/LO ‘content’ have been removed (Benders *et al.*, 2007), and 2) doublets have been removed. The final sample after the process of inclusion and exclusion is 71 publications (see Appendix 2³). This number of papers were distributed as follows: 12 papers combining OL/LO in the public sector, 17 papers concerning

³ Appendix 2 is extracted from Scopus. To avoid misunderstandings, it is important to note that Scopus automatically registers ‘The Learning Organization’ journal as ‘Learning Organization’ in their database.

LO in the public sector, and 42 papers concerning OL in the public sector. To identify and analyze the evolution, current tendencies and emerging themes associated with each of these three categories, we adopted qualitative descriptive coding following the guidelines of Anand *et al.* (2021b). Nvivo software (for MAC version 1.4 4349) was used to enable this work (Maher *et al.*, 2018).

Findings from the combined review of OL/LO

In the first findings section, we provide answers to the RQ1-5 by relying on Scopus Metrics as an evaluative technique. In the following focus is thus on responding to the more factual questions related to OL/LO in the public sector and the answers thus have descriptive orientation. In the second findings section presented later in the study, we delve more into the concrete content of the reviewed publications.

Answering RQ1

RQ1: Which countries lead in (the amount/number of scientific) works, published in the field of OL/LO in the public sector?

Knowing the countries from which publications originate may help researchers focus on the countries highly engaged in the scholarship, geographical representation of concepts and contexts (Anand *et al.*, 2021a). A publication from a country is defined as an article in which at least one author is affiliated to an institution located in that country – this is identified by the authors' contact information (López-Illescas *et al.*, 2009). Related to our dataset, we introduce Figure 5, where the threshold is set to a minimum of five publications to identify the largest and smallest number of publications on OL/LO by country. In terms of emerging economies, authors from India, Indonesia and Malaysia have engaged in publishing in OL/LO associated

with five publications, whereas Taiwan leads with nine publications. In comparison, most publications are found in the developed markets such as UK, USA, and Australia. These statistics suggest that there is an uneven geographical distribution of OL/LO research related to the public sector, and more importantly, that only a handful of countries are actively engaged in these domains of research.

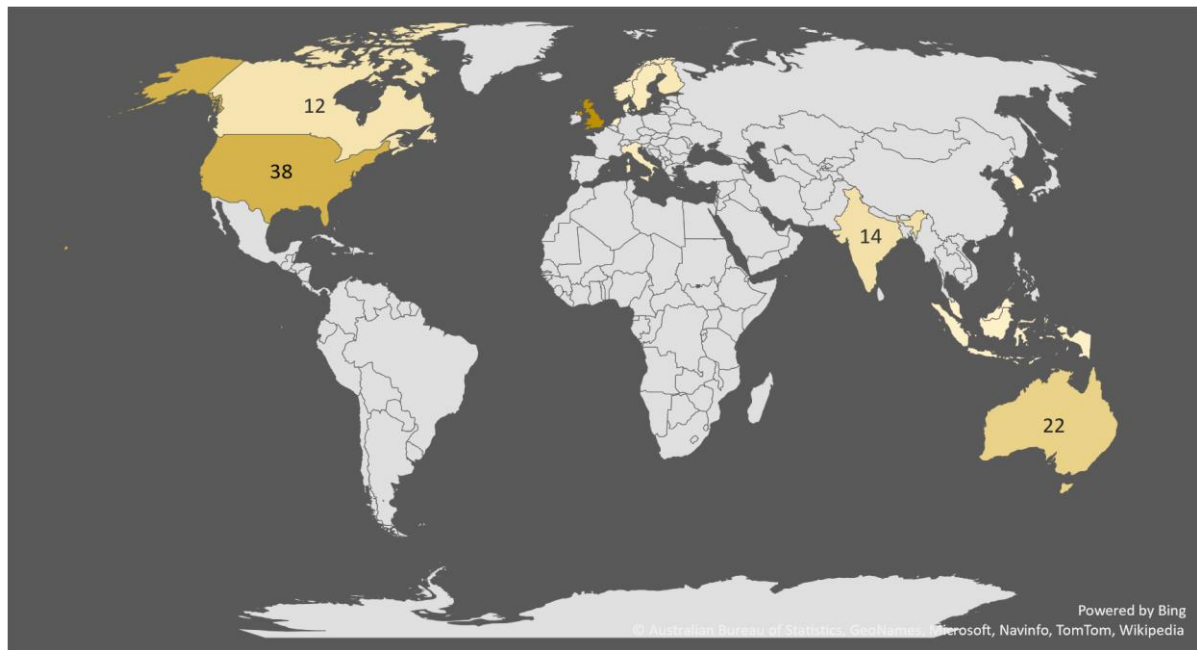


Figure 5: Distribution of publications by leading countries

With reference to Figure 5 and 6, we can conclude that the current top 3 of leading countries publishing OL/LO in the context of public sector are 1) United Kingdom, 2) United States of America, and 3) Australia. This implies that there is an urgent need to build a cumulative knowledge base of empirical studies for OL/LO research in the public sector from most parts of the world. The argument is that our theories of OL/LO lie as a latent, unexploited potential to both explore, analyze and explain problems and opportunities in the public sector (Choi and Chandler, 2015; Brix, 2017; Örténblad, 2019a).

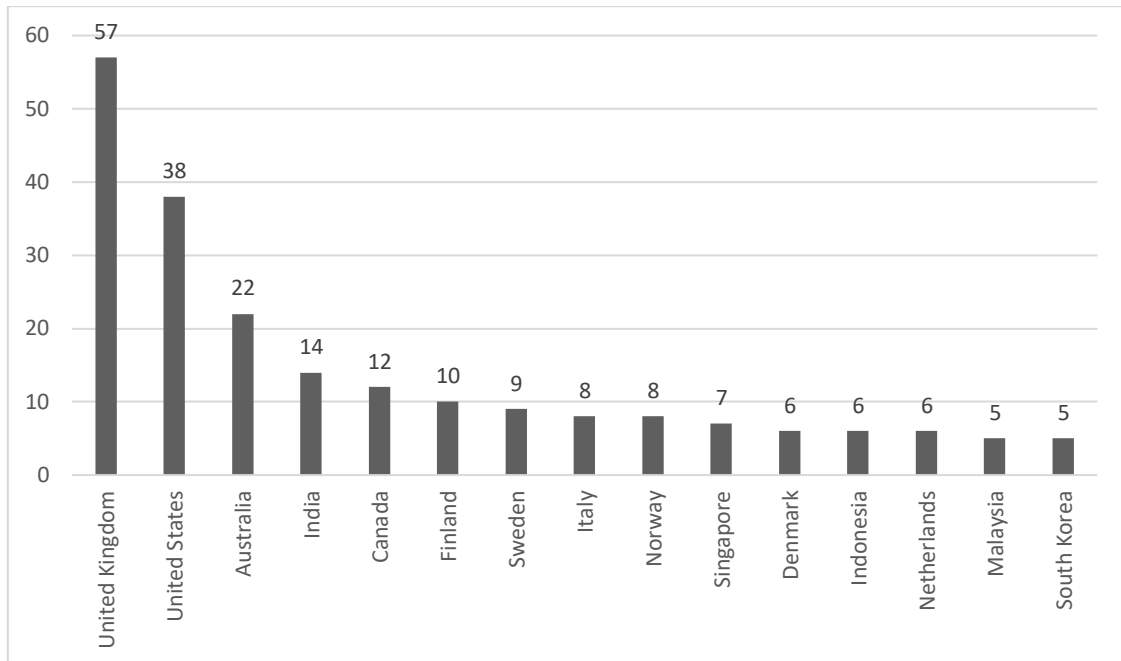


Figure 6: Distribution of documents by leading countries (With min 5 documents)

Answering RQ2

RQ2 “Who are the leading authors in OL/LO in the public sector?”

Leading authors are those who publish predominantly on a topic are recognized as active researchers in that discipline (Anand *et al.*, 2021a, 2021b). In Figure 7, the leading authors' publications are based on the affiliation or contribution to an article but does not denote the position of the scholar in the author list. The literature on OL/LO in the public sector is influenced by Nancy Beauregard from the University of Montreal Canada, Tony Bovaird from the University of Birmingham, Jean Hartely from Open University UK, Louise Lemyre from University of Ottawa, and Elke Loeffler from University of Strathclyde. These are the most active recent researchers in the field. The overview of leading authors and their affiliations indicates that Canada and UK authors have been leading in publishing papers from 1996 to 2020.

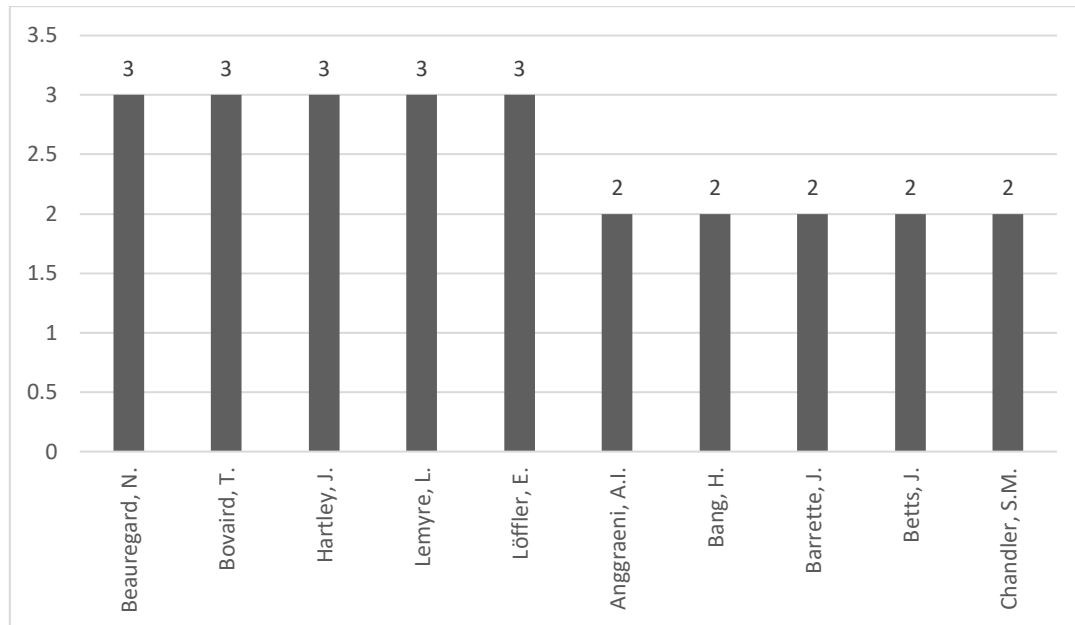


Figure 7: Distribution of publications by leading authors

Answering RQ3

RQ3 Which are the leading institutions/affiliations of OL/LO research in the public sector?

Cancino *et al.* (2017) suggest that a universities or institution's capability to progress in a particular research field depends on the number of publications it produces and the H-index ranking that it holds. However, the number of publications in a peer-reviewed journal also gives researchers an overview of the most productive and influential universities in a discipline. From Figure 8, Birmingham University (UK) leads in the number of publications, followed by University of Wollongong in Australia, Calgary University from Canada, and National University of Singapore. The convergence of different continents suggests that the OL/LO literature has attracted scholars form both West and the East.

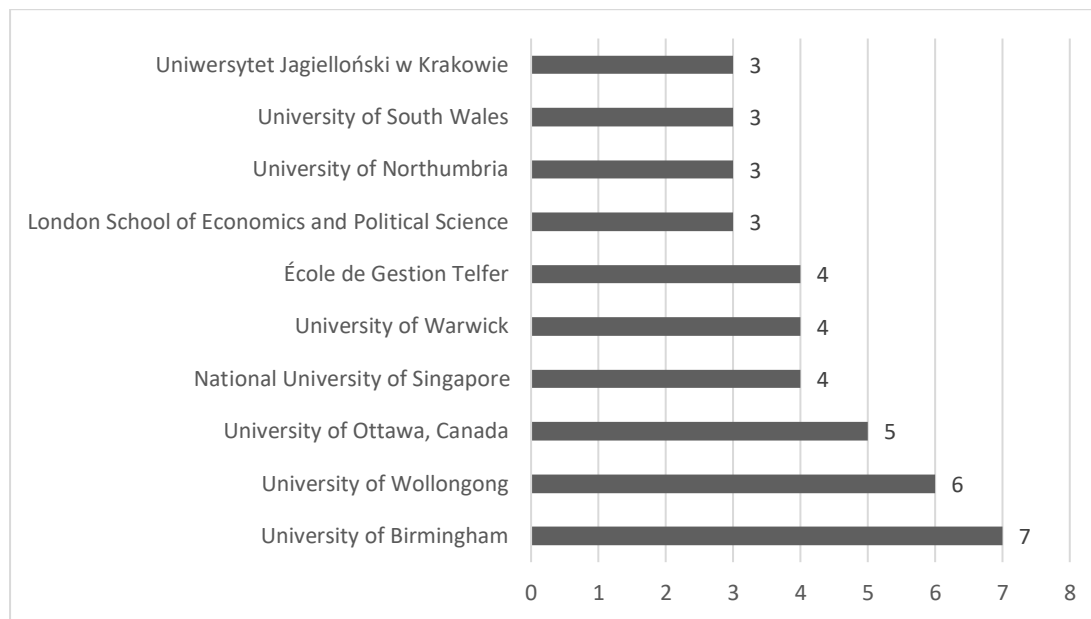


Figure 8: Distribution of publications by leading institutes

Answering RQ4

RQ4. What are the most cited publications of OL/LO in the public sector? – What are their contributions?

According to Serenko and Dumay (2015), highly cited publications are well-written and contain "hot" topics in each discipline. Table 2 displays the top ten most cited papers (calculated automatically by the Scopus database) as well as the journals in which these papers were published.

Table 2: Highly cited papers between 1980 to 2020 on OL and LO in the public sector

Authors	Journal	Cited by	Focus
Yang and Maxwell (2011)	Government Information Quarterly	247	Information sharing for organizational efficiency.
Rashman <i>et al.</i> (2009)	International Journal of Management Reviews	215	Organizational learning and knowledge are key for public firms to address challenges
Evans (2009)	Policy Studies	165	Policy transfer as a process of organizational learning
Modell (2004)	Financial Accountability and Management	148	The need for performance measurement and indicators in public organizations
Irani <i>et al.</i> (2008)	Journal of Strategic Information Systems	124	The role of e-government support in public firms
Lundvall and Nielsen (2007)	International Journal of Manpower	124	Learning organization are core of knowledge management and important for innovation in private firms and what about public firms?
Brown and Brudney (2003)	Public Administration Review	111	Role of feasibility, effectiveness, and limitations of information and technology in promoting learning organizations
Vince and Saleem (2004)	Management Learning	89	Role of emotions, learning and organizing in OL.
Walker (2014)	Public Management Review	87	Organizational size, administrative capacity and organizational learning are critical for public firms' innovation
Joo and Shim (2010)	Human Resource Development International	84	Psychological empowerment, organizational learning culture, and demographic variables had a significant impact on organizational commitment for employees in the public sector

We begin by presenting the above ten highly cited papers identified by the Scopus metrics. A first look at Table 2 reveals that OL and LO research have been published in many multidisciplinary journals such as *Journal of Strategic Information Systems*, *Human Resource Development International*, *Financial Accountability and Management*, *Policy Studies*, etc. A general pattern is that highly cited papers are associated in exhibiting the importance of OL and LO in public sector focused purely on the performance and benefits at organizational level (e.g., Rashman *et al.*, 2009; Walker, 2014; Yang and Maxwell, 2011). To some degree, these highly cited studies can serve to illustrate how OL and LO literature have been explored at both individual, organizational and group level. For instance, Information sharing between public firms is critical for an effective OL (Yang and Maxwell, 2011). Similarly, OL can aid in the management of knowledge and innovation in public firms, but research in this area is still

lacking (Lundvall and Nielsen, 2007). In the same vein, Modell (2004) emphasized the importance of performance measurement and indicators in public organizations. Additionally, an organizational learning culture is critical for OL or LO by ensuring that employees are committed to both participating in and contributing to learning (Joo and Shim, 2010), and effective information technology can aid in promoting a LO orientation in the public sector (Brown and Brudney, 2003). Additionally, it has been discovered that organizational size and administrative capacity have an influence on OL – which in turn has an impact on public firms' innovation (Walker, 2014).

Answering RQ5

RQ5. What are the keywords and themes used to study OL/LO in the public sector?

Keywords can be used to locate research "hotspots" in a discipline. The keywords in an article are distinct because they represent what the authors believe to be the most important words in their paper and can eventually classify trending research areas over time (Benders *et al.*, 2007). As seen in the Figure 9 VOS viewer generates a co-occurrence network in a two-dimensional map based on the keywords collected from the papers (Walsh and Renaud, 2017).

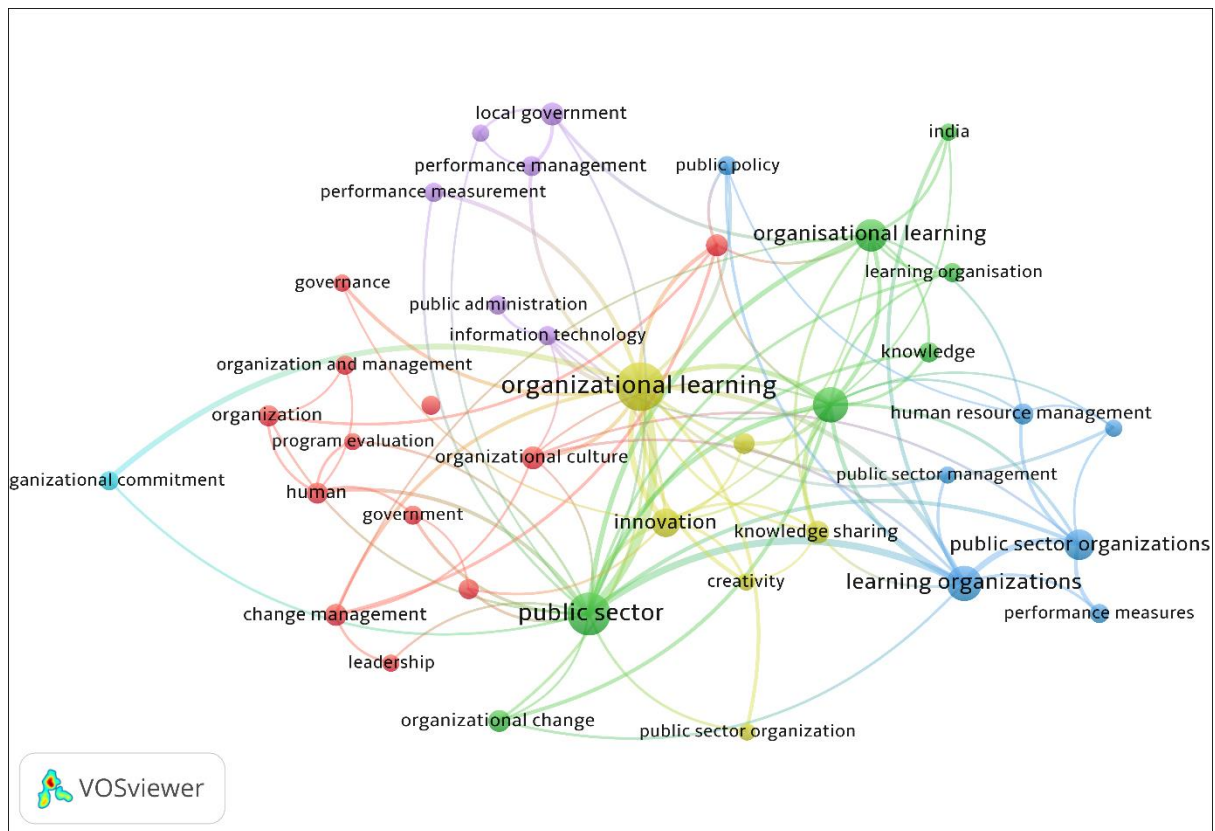


Figure 9: Keyword co-occurrence map of OL and LO in the public sector

According to Ribiere and Walter (2013), by visualizing a map based on keyword relations, a particular observation of concepts that are strongly semantically related can be made. This technology of visualization illustrates the concept and the relationships globally. According to the recommendation of Chen and Xiao (2016), keywords were widely used to reveal the research domain knowledge structure. Our analysis has shown that OL in public organizations has been growing, significantly in the fields of knowledge management, innovation, change management, leadership, and governance. The following topics are identified by looking at the map: (1) Role of OL in enhancing employee performance in public organizations. 2) The role of communication and knowledge in OL in public organizations; 3) The role of job involvement and organizational commitment can increase OL in the public sector.

Findings from the subject specific analyzes of the OL/LO, LO and OL studies in the public sector

In this more qualitative and narrative part of the review we respond to:

RQ6: *What are current tendencies and emerging themes in research published with the combined OL/LO profile, the subject specific LO profile, and the subject specific OL profile in the public sector?*

As mentioned in the introduction, we have divided the answers to RQ6 into three categories to present a more nuanced picture of the current tendencies and emerging themes associated with the combined OL/LO papers, and the papers with at specific OL or LO application.

Current trends and emerging themes in combined OL and LO papers (N=12)

The combined paper category is characterized by papers that e.g., combine theory from OL with theory from LO to build conceptual models for the public sector (e.g., Maden, 2012; Greiling and Halachmi, 2013), papers that utilize LO research to support arguments for OL, or *vice versa* (e.g., Stenvall and Virtanen, 2017) or papers that treat OL and LO as the same field (e.g., Chien, 2016). In this category we find no overlapping tendencies. However, some of the interesting themes that are covered are accountability, budget cuts and austerity, dilemmas and paradoxes, and human resource management (HRM). Greiling and Halachmi (2013) e.g., discuss how dynamic accountability is more supportive of creating organizational learning on the long run compared to short-term, control-oriented accountability. Elliot (2020) demonstrates how austerity is a driver for change, but that the learning that is taking place is incremental and not taking place strategically. Maden (2012) conceptualizes how public sector

organizations can better adapt via flexible actions to respond to rapid changes and different stakeholder demands. In relation to HRM, Dayaram and Fung (2014) argue for the benefits of applying a social lens – instead of only an individual lens – concerning training and development of human resources by arguing that organizational learning inherently is an interactive process occurring among people. A line of research that seems promising for future studies in the combined paper category is how OL and LO conceptually can be utilized in combination to tackle, concrete empirical problems in the public sector.

Current trends and emerging themes in LO papers (N=17)

Two clear, current tendencies stand out in LO research in the public sector. The first is a human resource management (HRM) / human resource development (HRD) focus, and the second tendency is oriented towards LO and performance.

Human resource management / Human resource development and LO

The tendency to use theory from LO to address issues of HRM and HRD in public sector studies can be illustrate by following examples. Kools *et al.* (2019) reveal how a LO management view is related with positive job satisfaction. Retna and Jones (2013) address how LO theory can be used to handle different national cultural values in Western firms employing non-western employees. Awasthy and Gupta (2012) report how DLOQ (Marsick and Watkins, 1999) can be used to improve HRM practices, and Joo and Shim (2010) show how a LO-orientation can help attract, motivate and retain talented employees in public service organizations. Finally, Soetjipto *et al.* (2020) argue that a LO focus can lead to well-functioning operations in public service delivery across service delivery supply-chains.

Performance management and LO

With regards to the performance-related aspects of LO in the public sector, Bhaskar and Mishra (2017) demonstrate how financial performance is related to the seven dimensions of DLOQ (Marsick and Watkins, 1999). Ngah *et al.* (2016) find that LO is positively associated with firm performance when LO is used to make knowledge management activities proactive. Pokharel and Choi's (2015) study illustrates how the application of LO theory leads to reduction of errors and improvement in self-reported organizational performance; and Holzmann *et al.* (2012) show how a LO-orientation can lead to safety improvements and reduction of human errors.

Emerging themes in LO studies in the public sector

Four emerging themes are found in our analysis of LO in the public sector: 1) LO and knowledge management, 2) LO and paradoxes, 3) LO translated into the public sector, and 4) inter-organizational LO. The link between LO and knowledge management can be found in the studies by Chawla and Joshi (2011a, 2011b), in which they find complementing opportunities for combining a LO focus with knowledge management in public sector organizations. They claim that public organizations seem to be better at applying knowledge management strategies to support the creation and maintenance living up to the criteria for being a learning organization compared to private companies. Another emerging theme of interest is how LO-theory can be used to better understand paradoxes in public sector. Glennon *et al.* (2019) argue that LO theory can help public sector employees meeting multiple and conflicting demands when they are working on creating and delivering public value. Örtenblad (2015) introduces and argues that different types of context-adapted models of LO would be relevant to investigate empirically e.g., the Learning Public Organization model and the Learning Human Service Organization model. Finally, the inter-organizational aspects of LO are argued to be a

beneficial area of inquiry with a specific focus on collaborative learning organizations (CLOs) proposed by White (2014). The review has shown different multi-sector studies where different public sector areas have been compared to one-another (e.g., Retna and Jones, 2013), but there is a scarcity on how public sector organizations collaborate with other public and/or sector organizations as learning organizations.

Current trends and emerging themes in OL papers (N=42)

Concerning OL studies in the public sector we identify 5 current tendencies and 3 emerging themes. *The current tendencies* are: 1) OL and performance in the public sector, 2) exploration and exploitation in public sector studies, 3) learning across organizational borders, 4) OL and reform and policy implementation, and 5) OL and co-production / co-creation. Following represent the *emerging themes*: A) OL and accountability, B) OL and sustainability, C) OL and responding to crisis. The current tendencies can be exemplified as follows.

OL and performance in the public sector

Concerning 1) *OL and performance in the public sector*, Harvey *et al.* (2010) stress the importance of applying a learning perspective to the way in which performance management is operationalized in public organizations. The argument is that the performance trajectories in public organizations can be improved by applying knowledge about knowledge creation processes related to organizational learning. Such a learning orientation coupled with performance management and improvement is echoed by Kahn and Kahn (2019) and Lye *et al.* (2021). Srimai *et al.* (2011) examines how the proactive use of strategic performance measurement systems as source of information to guide organizational learning processes

enables the creation of strategic alignment between different public agencies in a Thai local government.

Exploration and Exploitation in the public sector

Regarding 2) *exploration and exploitation in the public sector* Choi and Chandler (2015) utilize an exemplary case to illustrate conceptually how the balance between exploration and exploitation can be created. In this sense Choi and Chandler (2015) explicitly respond to the call for context-specific theoretical advances of OL tailor-made to the public sector (Rashman *et al.*, 2009; Kennedy and Burford, 2013). In this vein, Brix (2017) develops a multi-level framework for organizational learning and knowledge creation, and he explores its applicability via a case study in a Danish municipality. Okwechime *et al.* (2018) report top managers' experiences with exploitation of big data in smart city projects and they identify a pattern in the transitioning process between exploration and exploitation. Olejarski *et al.* (2019) conduct a longitudinal case study of the characteristics of learning in a public sector organization and how the organization change between logics of short-term rules that generate efficiency (exploitation) and the change of long-term norms (exploration).

Learning across organizational boundaries

The third current tendency related to OL in the public sector *learning across organizational boundaries* includes learning that takes place between organizations and can therefore be considered *both* with theory of inter-organizational learning *and* learning in networks (Kallio and Lappalainen, 2015). Mutiganda (2016) undertakes a case study of barriers and enablers for inter-organizational learning in a hospital district during the implementation of a budget cut policy, and he reports on how such implementation affects different clinical groups and their

learning orientation. Siciliano (2017) explores the social dynamics of how individual organizational members seek for advice and knowledge by actively using their professional networks. Interestingly, he sees a pattern in how organizational members seek advice from individuals who are most accessible or with whom they feel most comfortable with, and not necessarily the formal or informal expert. The final example in the third theme is the study by Brix *et al.* (2021). They propose a processual model for how professional co-producers can built inter-organizational relationships with strong learning orientations, and they propose how such model can be used to create an opportunity space that enables professional and non-professional co-producers in their collaboration to create public value (Brix *et al.*, 2021).

OL and reform and policy implementation

Current tendency number 4) *OL and reform and policy implementation* explore the role of OL theory in analyzing how and why reform and/or policy implementations has turned out successful or less successful (Mutiganda, 2016; Ricco and Schultz, 2019). Bisaso (2010) illustrates via OL theory how a public sector reform in Uganda created changes in management structures and practices at a public university by going from being a public institution to a public-private institution. He exemplifies via OL theory how learning processes assisted the organization in restoring stability after the policy implementation in times of austerity. Hansson *et al.* (2014) discuss how and why reforms when implemented should be followed by appropriate evaluation methods to generate new knowledge about “what works well and less well” with the new policy. They report on a case study from the Research Council of Norway and its “Program for Innovation and Renewal in the Public Sector” (Hansson *et al.*, 2014). Limba *et al.* (2019) discuss the political dynamics of OL in relation to top-down, institutional changes, and they argue that the 4i framework by Crossan *et al.* (1999) and its processual focus

on feedback processes can help enabling the adoption of the changes. Concerning the implementation of e-government innovations, Choi and Chandler (2020) discuss how and why many e-government initiatives either disappoint or fail, e.g., because of poor planning and execution. To change this unfortunate tendency and realize the latent benefits of e-government, they develop a conceptual model in which they propose the construct of a knowledge vacuum; a model that is suggested to be applicable to e.g., mitigate earlier failures or identify and analyze important mechanisms before and during (re)implementation.

OL and co-production / co-creation

The fifth and final current tendency identified in our analysis of OL in the public sector is *OL and co-production / co-creation*. Magno and Cassia (2015) study enablers and barriers of implementing co-creation processes between professionals and citizens in creating and delivering public value creation. They e.g., find interesting indications that public officials “are not culturally ready to engage in co-creation (...) they have a slowing effect on organizational learning about citizens, which is a foundational activity in co-creation” (Magno and Cassia, 2015, p. 1171). Kallio and Lappalainen (2015) investigate the process of collaborative service development between citizens, private organizations, and public service organizations for unemployed youth. Their study explains different interface strategies and how the public service organization acts as an active agent and facilitator for the actors in the collaboration. Lenart-Gansiniec and Sułkowski (2018) explore the role of crowdsourcing in local governments, and they report on four different crowdsourcing strategies applied by Polish municipal offices to co-produce public services, as e.g., co-decide, co-participate and co-manage. They find that the results of their study “(...) give rise to the recognition of crowdsourcing as a new, emerging paradigm of organizational learning, regardless of its type”

Lenart-Gansiniec and Sułkowski (2018, p. 12). In addition to this, Lenart-Gansiniec and Sułkowski (2020) built and introduce a model that explores the linkages between crowdsourcing, organizational learning and value creation. The last study identified related to this category is Brix *et al.* (2021). They conceptualize a model for interorganizational learning that is argued to be applicable by professional co-producers to understand, analyze and improve co-production processes (with or without citizen participation) that takes place between two or more organizations. Their focus is on how inter-organizational collaborations can create opportunity spaces for co-production that enable processes of both co-exploration and co-exploitation.

Emerging themes OL in the public sector

We identify 3 interesting emerging themes in our dataset: a) the link between OL, sustainability and CSR in the public sector, b) Organizational learning and accountability, and c) OL and responding to crisis.

The link between *OL, sustainability and CSR* in public sector is an emerging theme, is e.g., studied by Lundberg (2011) who in a case study at the Swedish Rail Administration utilizes organizational learning theory to discuss how the use of data from environmental management systems can be improved. De Giacomo *et al.* (2019) explore how Life Cycle Costing (LCC) can be used to sustainable sourcing in the context of Green Public Procurement (GPP) policies; and more specifically they investigate the role of organizational learning in stimulating the capabilities to apply LCC in practice. Finally, in this regard, we find Barrese *et al.* (2020) who investigate differences between ceremonial adoptions of CSR practices and substantive adoptions of these in the context of the UN Global Compact. They find that organizational learning processes play a key role in the substantive adoption.

The emerging theme *organizational learning and accountability* is found e.g., in the study of Visser and Van der Togt (2016). They argue that learning cannot be separated from questions of power and influence in public sector organizations. Their study illustrates how the public holds policy-makers accountable for their decisions and actions. The authors demonstrate via a case study how this power and its inherent complexity affects the organizational responses with the theoretical lens of single- and double-loop learning. Schillemans and Smulders (2015) investigate how processes of accountability can represent opportunities for learning. More specifically they built a model named the “Learning from accountability cycle” and they explore how different contextual conditions such as e.g., management structure, decision-making processes, inter-personal trust, and formal sanctions can be conducive for organizational learning. Baxter *et al.* (2017) stress the importance of holding public organizations accountable not only for their decisions, actions and behaviors, but also for their learning processes associated with their accountability. They stress that “A tolerance for failure is (...) a required policy for organizational learning (...) with the primary objective to learn in order to adapt and improve” (Baxter *et al.*, 2017, p. 324). Interestingly, Baxter *et al.* (2017) find that the content of what is reported in accountability processes can influence the reputation of employees and managers: if safety failures were identified and reported, it increased the reputation of the individual reporting the failure, but if the failure was related to daily operations, then the reputation of the responsible manager would be damaged.

The final emerging theme found in our dataset is *OL and responding to crisis*. Broekema *et al.* (2017) argue that public service organizations experience difficulties with learning from crisis, and that this in general is problematic due to the increased number of crisis in general. They argue that learning from crisis in the public sector is increasingly becoming a relevant theme that deserve more scholarly attention. Broekema *et al.* (2017) study factors that

enable organizational learning from crisis and built a framework that can be utilized to guide future studies. Keyes and Benavides (2018) study the highly complex public health crisis with the Ebola incident in Dallas (USA) from an organizational learning perspective. The argument posted by these authors is that it is important to know “(...) the factors and conditions in which public organizations make decision given (...) highly complex circumstances” (Keyes and Benavides, 2018, p. 234), and they make the case that organizational learning theory can represent a beneficial theoretical lens to improve our understanding of such complex decision making. The difficult part on the public sector side is in this vein, that they are both accountable for their actions and responsible for protecting public value. We expect that this emerging theme soon will rise to grow to a paradigm within organizational learning theory in the public sector. Especially due to the rapidly increasing number of publications related to the Covid-19 pandemic⁴ already getting published.

Conclusion: Research directions and implications

By applying the methodology of Anand *et al.* (2021a, 2021b) we reviewed the literature on OL and LO in the public sector. In the following we continue to summarize and discuss the implications and limitations of our study. This marks a new point in time for research on OL and LO in the public sector since this (to our knowledge) is the first review on OL and LO with a public sector focus published for more than a decade (Rashman *et al.*, 2009; Kennedy and Burford, 2013). We start by declaring the *descriptive results* of the answers to RQ1-5, and hereafter we synthesize and discuss the answers to RQ6.

⁴ Cases on Covid-19 were not found in our dataset; but this does not imply that studies of OL in relation to Covid-19 are non-existing in the public sector: see, e.g. (Lee *et al.*, 2020; Sharma *et al.*, 2021; Weiner *et al.*, 2021). We did not find these studies using our search string— and other related studies —because they did not explicitly utilize keywords related to the public sector in either their title or keywords section.

Answering RQ1-5

To answer RQ1: *Which countries lead in (the amount/number of scientific) works, published in the field of OL/LO in the public sector?* Our analysis finds that the current top three of leading countries publishing OL/LO in the context of public services are 1) United Kingdom, 2) United States of America, and 3) Australia. This implies that there is an urgent need to build a cumulative knowledge base of empirical studies for OL/LO research in the public sector from most parts of the world. The second research question was: *Who are the leading authors in the context of OL/LO in the public sector?* Following scholars are revealed as the most active and recent researchers in the field: Nancy Beauregard from the University of Montreal, Tony Bovaird from the University of Birmingham, Jean Hartely from Open University UK, Louise Lemyre from University of Ottawa, and Elke Loeffler from University of Strathclyde. Besides identifying the most active scholars we also looked after the leading institutions with the third research question: *Which are the leading institutions/affiliations of OL/LO research in the public sector?* Our study shows that Birmingham University (UK) leads in the number of publications, followed by University of Wollongong in Australia, Calgary University from Canada, and National University of Singapore. The fourth research question was: What are the most cited articles of OL/LO in the public sector? What are their contributions? Our analysis revealed that the three most cited papers on OL/LO with a public sector focus are Yang and Maxwell (2011), Rashman *et al.* (2009), and Evans (2009). Focus on these studies are on the performance and benefits of learning on the organizational level and also how e.g., information sharing among public organizations is critical for effective organizational learning outcomes such as effective knowledge management and innovation. The fifth research question was: *What are the keywords and themes used to study OL/LO in the public sector?* We found that

themes such as the role of enhancing employee performance in public organization is a noticeable theme when analyzing the keywords applied in the reviewed studies. The same goes for communication and knowledge sharing, and the degree of involvement and organizational commitment to organizational learning outcomes in the public sector.

Implications RQ1-5

By having provided answers to the first three research questions it can be argued that there is a knowledge gap on the OL and LO literature stemming from emerging economies (e.g. Thailand, Brazil, Russia etc.). Despite the number being low from emerging economies in the recent year between 2015 to 2020, two papers from India and Pakistan are leading in the high citation counts (Jain and Moreno, 2015; Khan and Khan, 2014). We also identify a knowledge gap for OL and LO in the context of international collaboration and a need for cross-country analysis (e.g., OL process in East vs. West and LO outcomes in West vs. East). Such studies could add more value to the literature. Thus, future research avenues of OL and LO research is argued to be beneficial if scholars can work cumulatively to apply, analyze, and report on how OL and/or LO theory works to create value in e.g., Latin America, Middle East and other parts of Europe such as Spain, Germany, Italy and the Scandinavian countries. Such geographical advancement could offer more dialogue between OL and LO scholars in public sector around the globe and assist in understanding geographical similarities and differences between the theories of OL and LO in the public sector.

Answering RQ6

The sixth and final research question was: What are current tendencies and emerging themes from 1) OL/LO combinations in the public sector, LO in the public sector, and OL in the public sector? We have developed Figure 10 to summarize the current tendencies and emerging themes we discovered during our analysis. See below. The proposed summary offers a consistent review of the existing literature, focusing on current tendencies and emerging themes. Additionally, it demonstrates the distinctions between OL and LO tendencies and themes in public sector. While the literature on OL and LO continues to grow, the directions presented may help scholars progress both contextually and theoretically on OL and LO (Rashman *et al.*, 2009; Kennedy and Burford, 2013; Brix, 2021).

Even though a decade has passed since the last reviews of OL in the public sector (Rashman *et al.*, 2009; Kennedy and Burford, 2013) and their call for more context-specific theoretical advances of OL related to the public sector, we conclude that there is still a long way to go. Our study shows however, that OL/LO scholars slowly are starting to embark on these endeavors. To focus on important, current priorities, we propose that the summary offered in Figure 10 will assist scholars in developing conceptual definitions and frameworks for OL and LO in the public sector (Maden, 2012; Choi and Chandler, 2015; Örténblad, 2015; Brix *et al.*, 2021), as well as empirically testing the current tendencies and emerging themes identified (Bhaskar and Mishra, 2017; Baxter *et al.*, 2017; Brix, 2017; Lenart-Gansiniec and Sułkowski, 2018).

The following are four of the most crucial areas of research on OL and LO in public firms that could be explored. 1) Our review did not reveal how OL and LO might change in definition in an emerging or developing country. Even though most of the literature on OL and LO is dominated by the West and Europe, with only a few studies appearing from India and

others, research from Africa, Russia, and South America are still sparse, either contextually or theoretically. Given that OL and LO have a considerable impact on innovation and growth, research is needed to conduct comparative studies to learn how OL and LO differ across emerging and advanced economies. 2) In a similar spirit, it is essential to explore OL and LO differences between the West and East (Retna and Jones, 2012), e.g., because the West sample of literature is relatively higher than samples from China, Australia, and other south Asian countries. 3) Studies should begin to distinguish explicitly between OL and LO in public and private enterprises (Choi and Chandler, 2015; Örtenblad, 2015). The point is that a public sector definition of OL and LO is still lacking due to differences in aspects such as company size, operation of firms, and how OL and LO may be perceived by private and public firms (Choi and Chandler, 2015). Hence, theoretical advances, conceptual developments and clearer definitions of OL and LO related to the public sector are needed. We however see an increase in adoptions of the multilevel literature on OL in the public sector which responds to the critique given by Kennedy and Burford (2013) who stated that this multilevel view was absent in the literature. 4) In line with this, OL and LO has been operationalized in many different ways in public organizations and therefore future studies may use either similar or other theoretical constructs to create learning outcomes in public firms. In our review we found examples of e.g., absorptive capacity (Hodgkinson *et al.*, 2012), formative evaluation (Hansson *et al.*, 2014), crowdsourcing (Lenart-Gansiniec and Sułkowski, 2020), and co-exploration and co-exploitation (Brix *et al.*, 2021). This implies that we still need to remember explicitly to criticise the application of the OL theoretical constructs that are created in the private sector, when applying them in the public sector (Rashman *et al.*, 2009). The point is that scholars should remember to articulate how and why the application of theories generated in one context is applicable in another context (Kringelum and Brix, 2021). Finally, because our review

focuses on the public sector in general, it would be beneficial for future studies to review and investigate more specific sectoral areas within the public sector.

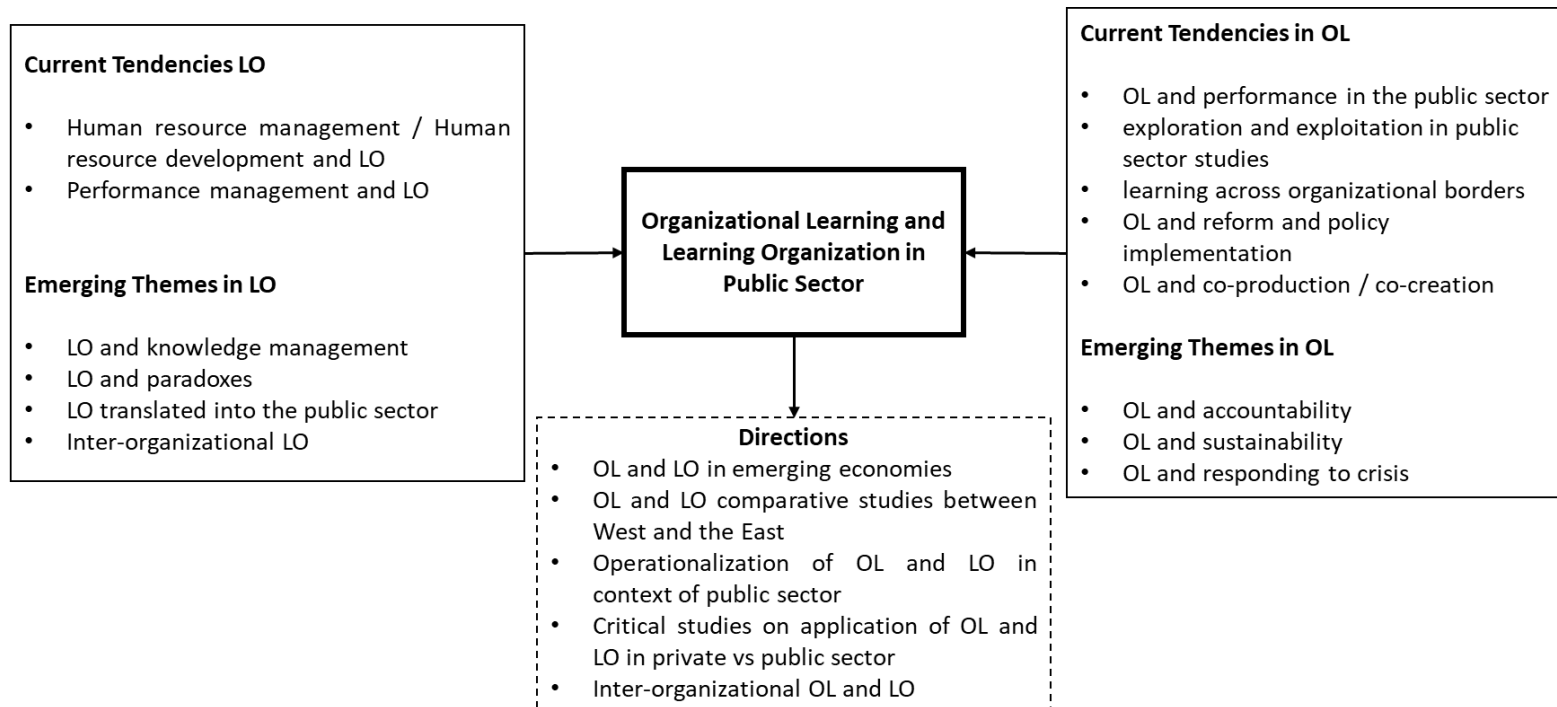


Figure 10: Summary of findings on OL and LO in public sector and directions for future research

Limitations

We may have overlooked some seminal works in this paper because as we used only Scopus as the database and included only peer reviewed journal articles written in English for our review (Benders *et al.*, 2007). Thus, future studies could benefit from exploring literature from peer reviewed book chapters and books as well as peer reviewed documents published in different languages than English. In addition to this, our study has had an overall focus on the public sector, and not specific search strings for concrete sectors within the public sector. Nonetheless, this review article contributes to the growing corpus on OL and LO literature with a public sector focus and it generates a new, updated point of departure for future research.

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Appendix 1: Differences between OL and LO

Organizational Learning The OL literature has many different definitions related to the “old” and the “new” OL (Örtenblad, 2001), the “third way” OL (Elkjaer, 2004) and the “integrated way” (Kringelum and Brix, 2021). <i>Examples of OL definitions are given below</i>	Learning Organization The LO has many different definitions that are still being applied in research by scholars taking e.g., “Sengenian”, “Watkins and Marsickian” and “Garvinian” approaches (Örtenblad, 2019a, p. 478). <i>Examples of LO definitions are given below</i>
Definitions	Definitions
<p>”The organizational learning perspective recognizes the tension between diverse attempts to enhance organizational capacity by simultaneously identifying new opportunities and fully utilizing existing knowledge” (Choi and Chandler, 2015, p. 140)</p>	<p>A learning organization is an “organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together” (Senge, 1990, p. 3).</p>
<p>Organization learning consists of three interrelated levels of learning: individual, group/team and organization, where four different learning processes take place: <i>intuiting, interpreting, integrating and institutionalizing</i> (4i framework). (Crossan <i>et al.</i>, 1999, p. 525)</p>	<p>“A learning organization is an organization in which a supportive learning culture and structure are strong enough to enable learning mindsets and systems learning across the organization to constantly transform and innovate itself for sustainable development in a complex and uncertain environment” (Bui, 2019, p. 144)</p>
<p>Organizational learning is a “change in the organization’s knowledge that occurs as a function of experience (...) organizational learning can be conceived of having three sub-processes: creating, retaining and transferring knowledge.” (Argote, 2011, p. 440)</p>	<p>A learning company [organization] is “an organization that facilitates the learning of all its members and continuously transform itself” (Pedler <i>et al.</i>, 1996, p. 1).</p>
<p>“Organizational learning is the process of creating new knowledge for strategic renewal and disseminating it to where it is relevant so that it can be used; reworked or rejected.” (Brix, 2017, p.117)</p>	<p>An “overview” definition is that the learning organization concept consists of four main aspects each containing of several sub-aspects: “learning at work”, “organizational learning”, “climate for learning”, and “learning structure”[*] (Örtenblad, 2019b, p. 385). <i>*see pages 385-386 for full lists of sub-aspects</i></p>
Distinguishing examples	
<p><i>Organizational learning</i> refers to the study of learning processes of and within organizations and a <i>learning organization</i> is an ideal type of entity that has the capacity to learn effectively and prosper (Tsang, 1997)</p> <p><i>Organizational learning</i> has concentrated on the detached observation and analysis of the process involved in individual and collective learning inside organizations (...) the <i>learning organization</i> literature has an action orientation, and is geared toward using specific diagnostic and evaluative methodological tools which can help identify, promote and evaluate the quality of learning processes inside organizations (Easterby-Smith <i>et al.</i>, 1999)</p>	

Appendix 2: List of Journal articles adopted for analysis (2010 to 2020)

Name of the Journal	Number of Articles
Learning Organization	10
Public Management Review	5
Public Performance and Management Review	3
Government Information Quarterly	2
International Journal of Emerging Markets	2
International Journal of Public Administration	2
Journal of Workplace Learning	2
Knowledge and Process Management	2
Management Research Review	2
Accounting and Finance	1
Asia Pacific Journal of Human Resources	1
Environmental Management	1
European Journal of Education	1
European Management Review	1
Evaluation	1
Human Resource Development International	1
Human Resource Development Review	1
Human Service Organizations Management, Leadership and Governance	1
Information Systems and e-Business Management	1
International Journal of Learning and Intellectual Capital	1
International Journal of Organization Theory and Behavior	1
International Journal of Productivity and Performance Management	1
International Journal of Public Policy	1
International Journal of Public Sector Management	1
International Journal of Public Sector Performance Management	1
International Studies of Management and Organization	1
Journal of Asian Finance, Economics and Business	1
Journal of Contingencies and Crisis Management	1
Journal of Environmental Policy and Planning	1
Journal of General Management	1
Journal of Higher Education Policy and Management	1
Journal of Nonprofit and Public Sector Marketing	1
Journal of Public Administration Research and Theory	1
Journal of Purchasing and Supply Management	1
Journal of Quality	1
Journal of Service Theory and Practice	1
Journal of Strategic Marketing	1
Journal of Strategy and Management	1
Local Government Studies	1
Management Learning	1
Measuring Business Excellence	1
Problems and Perspectives in Management	1
Public Integrity	1
Public Personnel Management	1
Scandinavian Journal of Management	1
Sustainability (Switzerland)	1
Teaching Public Administration	1
Teaching Public Administration	1
Total Quality Management and Business Excellence	1
VINE	1
Total	71