Distinguishing the Dimensions of Learning Spaces: A Systematic Literature Review

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Abstract: Nowadays, public and private organisations appear increasingly committed to fostering the skills necessary to deal with the challenges of the current scenario. From this perspective, public and private organisations are developing new spaces for learning. The notion of learning space draws its origin and main application in educational institutions. However, it constitutes a distinctive concept for all the organisational contexts in which the creation and management of knowledge and learning dynamics are enabling factors that support innovation and growth dynamics. Although several studies have already discussed the features characterising a learning space or a learning environment, the literature is fragmented and does not provide a comprehensive, fresh view of the learning space, its components, or its impact on learning processes and knowledge dynamics. This is particularly true in management literature. The research results synthesise data and knowledge gathered from the systematic literature review, providing researchers and practitioners with an integrative picture of the definitions of "learning space" and "learning environment" in the management literature and producing a descriptive framework that highlights the relevant dimensions that influence learning processes and knowledge dynamics.

Keywords: Learning environment, Learning space, Knowledge dynamics, Management, Systematic literature review

1. Introduction

Nowadays, public and private organisations appear increasingly committed to fostering the skills necessary to deal with the challenges of the current scenario by enhancing their learning capacity. The current scenario is increasingly complex and characterised by uncertainty and volatility; therefore, organisations need to develop innovation capacity, considered a key driver for survival, competitiveness, and long-term growth and success (Hamidi et al., 2019). Innovation capacity refers to the organisation's ability to develop new ideas, products, services, or processes that foster new value for the organisation, its stakeholders, and the surrounding environment. It involves the ability to recognise and respond to changes in the business environment, as well as the ability to leverage internal and external knowledge and resources to create new opportunities (Yildiz et al., 2021).

A range of factors influence it, and most are related to the processes of learning and knowledge. In fact, for an organisation, learning and knowledge processes and dynamics represent the engine for developing the capabilities for sustainability in the new business age (Nonaka and Takeuchi, 2019; Hamidi et al., 2019).

In such a perspective, several researchers emphasised the importance of learning orientation, knowledge sharing, and the learning environment as critical determinants of innovation capacity (Yildiz et al., 2021).

Individuals with a strong learning orientation are more likely to expose themselves to new knowledge and have a higher capacity to recognise, assimilate, and exploit it. Knowledge management is a driving force for innovation because it allows identifying, collecting, sharing, and applying knowledge and turning knowledge capital into real outcomes. Therefore, effective knowledge management practises, including knowledge sharing, can contribute to the development of innovation capacity. Moreover, a learning environment or learning space refers to the physical, social, and cultural context in which learning occurs. In this vein, according to the literature, in the last few years, new spaces to foster innovation and boost learning and knowledge dynamics have increasingly become key objectives for public and private organisations (Yildiz et al., 2021; Morris, 2020; Hamidi et al., 2019).

The literature suggests that learning spaces are places where knowledge is created, shared, and applied; they may be described as spaces of interaction between individuals, their behaviours, and the external environment.

Despite their growing importance, the literature is fragmented, and there is a gap concerning a comprehensive and holistic view of the distinguishing dimensions of learning spaces (Csizmadia et al., 2022; Cheng, 2015).

In this regard, this study aims to identify dimensions and features that characterise effective learning spaces and may support innovative capacity development.

The research is carried out through a systematic literature review answering the question, "What are the dimensions of a learning space that influence learning and knowledge dynamics?" aimed at providing an integrative picture of the evolution of the concept and definition of "learning space" and "learning environment" in the management literature, producing a descriptive, theoretical framework that supports the identification of the relevant dimensions that should be managed and evaluated. Specifically, it aims to guarantee and enhance the effectiveness of a learning space.
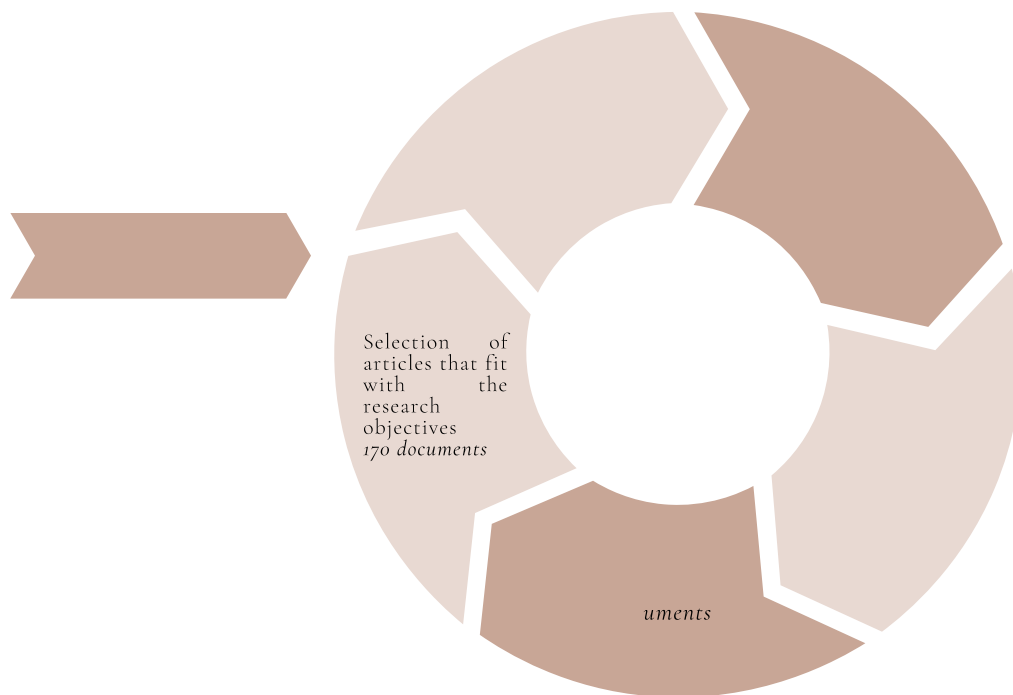
2. Research Methodology

Figure 1: Steps of the Research Process and Number of Selected Papers

The management literature provides a vast amount of data and articles, and analysing them is a challenging task. (Crossan and Apraydin, 2010). One of the responses is to undertake an extensive analysis of the contributions in the literature. The adopted approach proposed by Tranfield et al. (2003) is a scientific and transparent process reported in sufficient detail to permit replication (Tranfield, 2003). With a SLR approach, insights and evidence from the literature have been found, synthesised, and evaluated.

Tranfield et al. (2003) proposed three main phases: i) planning the review; ii) conducting an inspection; and iii) reporting and disseminating.

The first step, concerning the planning phase, was conducted by defining keywords and searching terms to carry out the SLR. The search strings were defined according to the research question, derived from a first scoping review: "What are the dimensions of a learning space that influence learning and knowledge dynamics?". Initially, the research strings chosen were "learning space" AND "dimensions". However, formulating a query considering only these two keywords resulted in being too specific; indeed, given the plurality of terms used interchangeably to refer to learning spaces and dimensions, a broader selection requirement has been adopted to include all the significant studies, adding to the query other terms with "OR". In consequence, the selected research strings were "learning space" OR "learning environment" AND "dimensions" OR "components" OR "characteristics" OR"features". The search strings chosen are wide enough to understand the level of knowledge and contributions in this field and identify the areas to explore. The following steps concern the conduct of the inspection. With the scope of building a holistic and comprehensive understanding of the dimensions of learning

spaces, the approach concerning using multiple databases has been adopted. Specifically, the multiple databases considered were Web of Science (WoS) and Scopus, acknowledged as complete databases for academic papers (Falagas, 2008). The final set of works to be considered has been defined, identifying all relevant articles and removing duplicate papers.

In this case, predetermined criteria were chosen to decide what literature to include or exclude. Filters were applied to include articles already published in journals from 2009 to 2023 to focus on the most recent developments.

The research field of interest was Business, Management, and Accounting. Conference papers, articles not written in English, book chapters, and special issue editorials were excluded. All duplicate papers from different sources were identified and removed.

Titles, abstracts, and keywords of the remaining articles were analysed to include contributions aligned with the aims and focus of the analysis.

In fact, other exclusion criteria are chosen after a first scan of the essential article source information and concern the consistency between the article topics and the research questions. Specifically, contributions in fields disconnected from business, management, and economics were dismissed.

As a result of the research strings, after applying the selection criteria, 373 documents have been selected: 297 results from Scopus and 76 from the Web of Science. The documents were opened into a spreadsheet, and the duplicates were removed.

Then, reading the title, keywords, abstracts of identified papers, and full text, the essential documents for the research's purpose were selected. The notion of learning space has been approached from several perspectives and in diverse dimensions. Thus, the critical articles selected were 170.

3. Analysis of the Results

3.1 Distinctive Dimensions of a Learning Space

The concept of learning space emerges in the educational field within the socio-constructivist paradigm of learning, described as the result of the interaction between individuals and the environment.

Generally, an educational learning space may be recognised as a virtual location or a physical place, such as a classroom, a laboratory, a lecture room, or a workshop, where knowledge is created, shared, and applied (Morris, 2019).

The notion of learning space has its origins and main application in educational institutions. However, in the current scenario, the development of learning spaces or learning environments based on active methodologies and the use of new advanced technologies constitutes a distinctive concept for all the organisational contexts in which the creation and management of knowledge and learning dynamics are enabling factors that support innovation and growth dynamics. A learning space is a multi-dimensional space that includes different factors, characteristics, and dimensions. It can be formal or informal, and it can take place in a variety of settings, depending on the context of the application, such as classrooms, libraries, museums, online platforms, knowledge management systems, innovation laboratories, creativity rooms, co-working spaces, innovative workplaces, educational spaces, and lecture rooms (see, e.g., Nonaka and Takeuchi, 2019; Jung et al., 2018; Gonzalvez et al., 2014).

According to Kuokkanen and Van der Rest (2022), a learning space is not neutral but may significantly impact the learning process and outcomes. Learning spaces enable and facilitate the creation and sharing of knowledge and learning by managing tangible and intangible components. Although several studies have discussed the features of learning spaces, especially in educational contexts, there is still a gap regarding a comprehensive and holistic view of the distinguishing dimensions of learning spaces. This is particularly true in the management literature (Csizmadia et al., 2022; Mueller & Strohmeier, 2010).

In this context, this study aims to identify dimensions and features that characterise effective learning spaces and support and influence successful learning and knowledge activities and dynamics. The connections between all the dimensions of a learning space can be subtle and powerful for learning and knowledge dynamics. In sum, identifying a learning space's key dimensions would help better manage and assess its performance. In such a prospect, the study attempts to answer the following research question: "What are the dimensions of a learning space that influence learning and knowledge dynamics?"

A critical analysis of the extant literature suggests that it is possible to identify some distinguishing dimensions and components of learning spaces. These different dimensions are interrelated and mutually influence each other in defining and characterising a learning space. According to different researchers, the critical infrastructural components and dimensions are: i) the physical environment; ii) technological tools; iii) organisational resources; iv) actors and interactions; v) culture and atmosphere (see, e.g., Bindhu & Manohar, 2015; Csizmadia et al., 2022). Through a systematic literature review, this study analyses the dimensions of learning spaces more in depth, describing the elements and items included in every dimension. Each sub-dimension has a different weight and contributes differently to the development of a learning space. In the following, each sub-dimension will be analysed and discussed.

Table 1: Theoretical Framework: Learning Space Structural Dimensions

	Sub-dimensions	**References**
Physical Setting	*Virtual (e.g., individual space characteristics)* Hybrid *and physical (furniture, lights, colours, decorations, dynamic space, flexibility and adaptability, layout of the class, spaces and arrangements, study spaces, collaboration spaces).*	(Christensen et al., 2023; Jens and Gregg, 2022; Berbegal-Mirabent et al., 2021; Sasson et al., 2021; Dleikan et al., 2020; Sankari et al., 2018; Osorio et al., 2017; Lancaster and Milia, 2015; McLaughlin & Faulkner, 2012; Heiskanen & Heiskanen, 2011).
Technological resources	*Supporting and basic technologies (e.g., platforms, tablets, smartphones, webcams, projectors, digital whiteboards, platforms, headphones, digital watches, etc.)* *Advanced and 4.0 technologies (e.g., artificial intelligence, virtual reality, 3D printers, augmented reality, metaverse, big data, internet of things, additive manufacturing, machine learning, smart factories, etc.)* *Software*	(Abdalina et al., 2022; Ali et al., 2022; Ghani et al., 2022; Lee and Tan, 2022; Lu, 2022; Reyes-Mercado et al., 2022; Hines and Netland, 2022; Upadhyay and Khandelwal, 2022; Safdar et al., 2022; Snieder and Zhu, 2020; Eisenbardt, 2021 Renz and Valdova, 2021; Renz & Vladova, 2021; Akdere et al., 2021; Sasson et al., 2021; Delgado et al., 2020; Hliouli et al., 2020; Latrous & Khadraoui, 2020; Rasheed et al., 2020; Marta, 2019; Borge et al., 2018; Gdanetz et al., 2018; Aouf et al., 2017; Lau, 2015; Mahenge & Mwangoka, 2014; Olsen et al., 2011; Huang et al., 2010; Jurasaite-Harbison, 2009;
Organisational Resources	Methods, processes, and activities Systems of practises and procedures that providers use to support and enrich the learning processes and knowledge dynamics *(e.g., project- or problem-based learning, design thinking, storytelling, collaborative communities, web-based videos, narrated stop-motion animation, modelling, gamification, simulation, flipped classrooms, content-driven processes, etc.)* The topics, themes, concepts, and facts, often grouped into subjects, that are expected to be learned (e.g., economics, entrepreneurship, digitalization, STEM subjects, etc.) Economic resources	(Yan et al., 2022; Nashaat et al., 2022; Mojtahedi et al., 2020; Wannapiroon & Petsangsri, 2020; Zakaria et al., 2019; Xu et al., 2018; Corney, 2018; Song et al., 2018; Filippou et al., 2018; Aggarwal, 2017; Dai & Bal, 2009; Jurasaite-Harbison, 2009; MacNeil et al., 2009)
Actors and interactions	*Knowledge providers (e.g., teachers, professors, researchers, mentors, entrepreneurs, facilitators, etc.)*	(Lee and Tan, 2023; Abuhassna et al., 2022; Ching Lee and Yian Tan, 2022; Müller and Wulf, 2022; Toiviainen et al., 2022; Bianchi & Vignieri,

	Sub-dimensions	References
	Learners (internal or external: e.g., learners, students, organisations, managers, employees, staff, etc.) *Internal* *i. Horizontal (e.g. workgroup, peer relationships)* *ii.Vertical (e.g. scaffolding, supporting relationships, mentoring, leadership, etc.)* *iii.External (e.g. partnerships; coaching)*	2021; Delgrado et al., 2020; van Riesen et al., 2019 Sankari et al., 2018; Lancaster and Milia, 2015; Elmadani et al., 2015; Esichaikul et al., 2013; Mihalca et al., 2011; Jurasaite-Harbison, 200;
Culture and Atmosphere	*Culture and Atmosphere (e.g., open-minded culture, routine culture, flexible mindset, positive environment with* trust, cooperation, safety, risk-taking support, and equity, *formal or informal atmosphere, motivating and engaging environment, creative atmosphere, friendly atmosphere, academic atmosphere, active learning atmosphere, etc.)* *KM culture (the willingness to transfer, create, and share knowledge from tacit to tacit, tacit to explicit, and explicit to explicit)*	(Abuhassna et al., 2022; Csizmadia et al., 2022; Lee and Tan, 2023; Black & Mischel, 2023; Montiel-Ruiz et al., 2023; Gupta & Priyanka, 2023; Lazzari, 2023; Erdoğdu and Akrolu, 2021; Akhmetshin et al., 2019; Burusic, 2019; Maheshwari & Seth, 2019; Jung et al., 2018; Karkoulian et al., 2013).

3.1.1 The infrastructure of a learning space

As already mentioned, learning spaces enable and catalyse knowledge and learning dynamics, supported by tangible and intangible structural dimensions that foster open, honest, and receptive interactions among the stakeholders involved (Delgado et al., 2020). The dimensions are specified in Tab. 1 and further discussed in the following:

3.1.2 Physical setting

Learning spaces emerge as places where learning and knowledge dynamics are activated and supported. The management literature has highlighted the influence that the physical setting has on dynamics, interactions, and processes, as well as on individuals' skill development and behaviour definition. Consequently, attention to detail is essential to positively impacting the learning space's effectiveness.

The physical setting of a learning space refers to the physical and virtual space or spaces in which learning happens (Sankari et al., 2018).

The physical setting includes individual and common spaces. Scholars have discussed some key characteristics of such spaces: furniture, seating arrangements, lighting, temperature, decorations, and acoustics (Sasson et al., 2021). Furniture that facilitates the interactions between actors, tools, and the environment is preferred. At the same time, the quality of the air, luminous colour, and light can help develop a favourable and stimulating learning space (Dleikan et al., 2020; Jens and Gregg, 2022).

Generally, an effective learning space design favours engagement, creativity, and collaboration with a high level of comfort and flexibility. All the design elements characterising the space must merge into a synergistic whole.

Researchers pointed out that learning spaces are oriented and designed towards the learner and the learning and knowledge processes and are characterised by flexibility, functionality, participation, and empowerment in emerging and innovative spaces (Heiskanen & Heiskanen, 2011).

3.1.3 Technological resources

The technological resources dimension contemplates a combination of technological tools and infrastructures that enhance learning and knowledge processes and dynamics. Different technological tools can foster or prevent impacts on the learning process. Consequently, the design and management of a learning space must

be associated with choosing the appropriate tool to exploit their potential and maximise the value added (Delgado et al., 2020).

According to the literature, the technological dimension is considered a key factor in the success of learning spaces, as it enables learners to access a wide range of educational content and resources and to engage in active, experiential, and collaborative activities. They provide individuals with means for representing knowledge in multiple ways (Sasson et al., 2021).

The literature discussed the use of various technological tools, in particular supporting and basic tools, advanced and 4.0 technologies, and software. Examples of basic technological assets and software supporting learning and knowledge dynamics are platforms, computers, mobile phones, tablets, projectors, e-readers, 3D printers, headphones, digital watches, digital whiteboards, etc. (Latrous & Khadraoui, 2020).

More advanced technologies can contribute to the enrichment of learning by enhancing the learning strategy and institutionalising continuous learning and the protocol for sharing and transforming knowledge. Some representative examples pointed out in the literature are: Artificial intelligence, the Internet of Things (IoT), augmented and immersive reality, digital platforms, the metaverse, sensors, algorithms, adaptive learning platforms, and other smart technologies that facilitate interaction and collaboration in the learning process (Abdalina et al., 2022; Diaz Tito et al., 2021).

However, different researchers also acknowledge the limitations of technology, such as the need for effective data processing and the potential for technology to create a sense of isolation and disconnection among learners. In this vein, the individuals involved in a learning space must best integrate the technologies into the functioning mechanisms of the space (Snieder and Zhu, 2020).

3.1.4   Organisational resources

This dimension includes the tangible and intangible resources that support learning processes and knowledge dynamics within a learning space.

Specifically, it includes methodologies, contents, materials, and resources available to support learning. Learning methodologies are systems of practises and procedures that providers of knowledge employ to develop a learning process. Some examples of methodologies may be project- or problem-based learning, design thinking, storytelling, collaborative communities, web-based videos, narrated stop-motion animation, modelling, gamification, simulation, flipped classrooms, content-driven processes, etc. (Filippou et al., 2018; Maheshwari & Seth, 2019).

According to the literature, a key aim for developing new learning spaces is to understand what methodologies support and favour the introduction of technologies.

On the other hand, topics are themes, concepts, and facts, often grouped into subjects, that are expected to be learned (e.g., economics, entrepreneurship, digitalization, STEM subjects, etc.) (Aggarwal, 2017; Akhmetshin et al., 2019).

Schobel & Scholey (2012) identify other important organisational resources: economic resources and, specifically, the financial strategies adopted. The authors argue that learning spaces with well-defined financial strategies are linked to positive outcomes and are well-positioned for success.

3.1.5   Actors and interactions

The success of a learning space strongly depends upon the actors, how they are engaged within the facility, and how they interact with each other.

The nature of the people or users involved in learning spaces is vast. According to the literature, two types of knowledge actors can be identified in a learning space: providers of knowledge and learners. Learners can be an internal or external target; some examples are students, managers, organisations, employees, and staff. They are considered central actors, seen as active developers of their own learning, engaged in authentic learning and knowledge processes. On the other hand, providers are people who support learners, acting as coordinators who facilitate interactions and the exchange and development of knowledge. They assume great relevance and act as facilitators of the learning process. This role may coincide with that of teachers, professors, transformative leaders, innovation managers, researchers, mentors, entrepreneurs, facilitators, organisers, etc. (Stern et al., 2020; Pawlowsky et al., 2020; Nonaka & Takeuchi, 2019; Sankari et al., 2018).

Further studies state the importance of the prior knowledge and skills of the actors involved in obtaining a successful performance. Prior knowledge, which may cover several contents and skills, interacts with other variables to influence learning outcomes and can be further enhanced through a culture oriented to knowledge and the interactions among actors (Mihalca et al., 2011).

The actors' interaction concerns the system of interactions between internal and external actors that take place in the learning environment. According to the literature, the design of the learning space has to promote positive relationships and a sense of belonging (Abuhassna et al., 2022).

The actors' interaction concerns the system of interactions between internal and external actors that take place in the learning environment. According to the literature, the design of the learning space has to promote positive relationships and a sense of belonging to enhance motivation and engagement.

Learners and providers continuously engage with each other and with the learning space. The interactions can be horizontal, vertical, or external. Horizontal and vertical interactions can take various forms, such as verbal communication, written communication, scaffolding, collaboration activities, feedback, and reflection. In a physical setting, interactions may occur through face-to-face discussions and group work, whereas in an online learning environment, interactions may occur through discussion forums, video conferencing, and other digital communication tools.

Concerning external interactions, physical proximity increases communication, face-to-face contact, and knowledge spillovers. In this vein, clusters of organisations with a high level of linkage between them and universities and R&D centres can foster success in learning environments (Toiviainen et al., 2022).

Effective interactions require active participation, mutual respect, and a willingness to engage in constructive dialogue and feedback (Delgrado et al., 2020).

3.1.6 Culture and atmosphere

This dimension identifies the mood, attitudes, expectations, practises, norms, and sensorial qualities distinguishing a learning space. It influences the effectiveness of the space by increasing or preventing motivation, attention, creativity, and the level of involvement of people. A learning space includes constructs concerning the experiences lived by the individuals involved and influenced by their behaviour. The quality of a learning space is strongly influenced by the nature and orientation of the actor's culture. (Pawlowsky et al., 2020) A positive learning environment promotes an open-minded culture, flexibility, and willingness to engage in innovative activities. It provides opportunities for learners to explore new ideas and concepts and to develop critical thinking and problem-solving skills (Burusic, 2019). Together with the actor's culture, the development of a strong knowledge culture is also a key determinant of the learning space's effectiveness. Knowledge culture drives and encourages the coding, transfer, and application of knowledge to promote learning and innovation. (Abuhassna et al., 2022; Csizmadia et al., 2022; Karkoulian et al., 2013).

The atmosphere of a learning space refers to the shared values, beliefs, attitudes, and behaviours of the individuals who participate in the learning process. It includes the norms and expectations that guide interactions among learners and instructors, as well as the creativity, level of collaboration, respect, and inclusivity fostered within the learning space. A positive learning atmosphere is fostered by supportive, friendly, active participation, critical thinking, and constructive feedback. It also values diversity and promotes a sense of community and belonging among learners. The atmosphere can be formal in traditional learning processes or informal in unstructured settings (Jung et al., 2018).

A favourable culture and energy translate into the behaviour of people who appear involved, focused, and engaged in the learning processes and dynamics.

4. Concluding Remarks

Nowadays, public and private organisations appear increasingly committed to fostering the innovation capacity necessary to deal with the challenges of a complex and uncertain scenario. A range of factors influences innovation capacity, and most of them are related to the processes of learning and knowledge. In fact, for an organisation, learning and knowledge processes and dynamics represent the engine for developing the capabilities for sustainability in the new business age. In such a perspective, learning environment, knowledge, and learning dynamics are considered key determinants of innovation capacity; therefore, spaces to foster innovation and boost learning and knowledge dynamics are acquiring increasing importance and becoming key objectives for public and private organisations.

The literature suggests that learning spaces are places where knowledge is created, shared, and applied; they may be described as spaces of interaction between individuals, their behaviours, and the external environment. Although several studies have already discussed the features characterising a learning space or a learning environment, especially in an educational context, the literature to date is fragmented and does not provide a comprehensive, fresh view of a learning space, its infrastructural dimensions, or the impact that has on learning processes and knowledge dynamics. This is particularly true in management literature.

In such a context, based on a systematic review of the literature, this study provides a clear and holistic understanding of the infrastructural dimensions characterising a learning space to support the management and assessment of these spaces in educational and organisational contexts.

Consequently, the systematic literature review has provided a consistent background for developing a theoretical framework.

Learning spaces are characterised by: i) a physical setting; ii) a technological dimension; iii) organisational resources; iv) actors and interactions; v) culture and atmosphere.

The research results synthesise the data and knowledge gathered from the literature review and offer implications and insights both for theory and practice. From a theoretical viewpoint, the paper contributes to the further development of the literature about LS by providing a definition suitable for different levels of application, specifically: "the physical, virtual, and hybrid space, of formal or informal nature, characterised by action and interactions among different actors and their capabilities, which promotes cognitive processes and influences knowledge and learning dynamics through its tangible and intangible components, generating innovation capacity." Then, the study identifies specific variables and dimensions to consider to support innovation dynamics within a public or private organisation.

Moreover, the analysis of the literature reveals the importance given to the management and assessment of learning spaces. In fact, managing and assessing a learning space is necessary to ensure its effectiveness, achieve goals and objectives, and trigger a virtuous cycle of improvement. (Reyes Mercado, 2022; Greasley and Bennet, 2014; Grieves et al., 2005)

Managing a learning space means creating an environment that supports learners' learning and knowledge processes. Specifically, effective management of a learning space involve:

- providing resources and materials that are relevant to the learners,
- creating a safe and welcoming physical space, and
- establishing clear expectations and guidelines for behaviour.

Therefore, several researchers suggest a need for further research on the management and assessment of learning spaces, particularly in terms of defining all the performance dimensions, selecting appropriate technologies, providing training and support for knowledge providers and learners, monitoring usage and engagement, and continuously evaluating and improving the space and the activities organised. The studies emphasise the importance of gathering feedback from learners and knowledge providers to ensure that the learning environment meets the needs of all actors (Reyes-Mercado, 2022; Müller F.A.; Wulf T., 2022; Erdoğdu and Çakıroğlu, 2021; Greasley and Bennet, 2014; Mueller and Strohmeier, 2011). Moreover, from the literature, it emerges that there is a need to focus on learning spaces developed in the digital age, specifically those developed integrating advanced technological tools such as augmented and virtual reality, the metaverse, artificial intelligence, and the internet of things.

Concerning more practical implications, the paper provides managers with a theoretical framework that may support different actors (e.g., universities, organisations, companies, and public administration offices) to make informed decisions and management plans based on key data and knowledge and to develop effective learning spaces supporting virtuous cycles of learning, knowledge management, and innovation.

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