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*Sanhakot Vithayaporn, Rungkaew Katekaew,
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Antecedents and Consequences of Organizational Learning Climates: A Meta-Analysis Using Maslow's Hierarchy of Needs Theory

**Sanhakot Vithayaporn¹, Rungkaew Katekaew²,
Chantararat Vorapanya³, Sutha Sanpetpanich⁴**

¹Corresponding Author, Lecturer, Faculty of Business and Technology, Stamford International University, Thailand. Email: Sanhakot.vithayaporn@stamford.edu

²Lecturer, Faculty of Business and Technology, Stamford International University, Thailand.
Email: Rungkaew.katekaew@stamford.edu

³Lecturer, Faculty of Business and Technology, Stamford International University, Thailand.
Email: Chantararat.vorapanya@stamford.edu

⁴Lecturer and Ph.D., Faculty of Business and Technology, Stamford International University, Thailand. Email: suttha.sanpetpanich@stamford.edu

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Abstract

The purpose of this paper is to determine the antecedents and consequences of “organizational learning climates”, which are the co-creation of an organization and employees. It presents the diverse definitions of organizational learning climates from various studies. Four main elements/factors that impact an organizational learning climate include the physical, psychological, social, and technological learning climates that influence employees to participate in any learning activity (Gregory, 2016). Maslow's hierarchy of needs theory was used to explain the elements/factors of learning climates according to the basic needs of humans. This conceptual paper used a literature review, document analysis, and meta-analysis methods to examine organizational learning climates. The primary 100 articles were initially analyzed and extracted to a final 50 articles using categorization criteria to synthesize the results. The study found that the four main elements of learning climates are aligned with Maslow's theory's hierarchy of needs: physical needs, security and safety, love and belonging, self-esteem, and self-actualization, which are integrated with the physical, psychological, social, and technological learning climates that impact individuals' willingness to learn, and organizations' emphasis on encouraging employees' learning. The discussion and conclusions also present how organizational learning climates make a transitional leap to a learning organization. The limitations and recommendations are involved with the fact that the empirical studies of learning climates in a business management context are limited. Thus, it is recommended that future research should be based on a large organization, to identify the strategic activities that may cause the transition to a learning organization.

Keywords: organizational learning climate, hierarchy of needs theory, physical climate, psychological climate, social climate, technological climate

Introduction

Throughout human history, learning has played a dominant role in the development of human knowledge, competencies, and life skills. Nowadays, learning has become a part of our lives from birth until death, which includes learning in the formal system and non-formal and informal learning. According to the first principle of the European Pillar of Social Rights, “everyone has the right to quality and inclusive education, training and life-long learning to maintain and acquire skills that enable them to participate fully in society and manage successfully in the labor market.” Additionally, it states that “everyone has the right to timely and tailor-made assistance to improve employment or self-employment prospects. This includes the right to receive support for job searches, training, and re-qualification” (European Commission, 2018, p. 11-12).

Regarding the natural aspects, weather and climate-related disasters have long had a significant impact on humans. For example, droughts have occurred throughout history, and floods, hurricanes, and tsunamis are all part of natural cycles. Moreover, industry, business, and organizations are also affected by the natural environment, and today, the question is how human life is changing due to climate and weather conditions (IPCC, 2013). Interestingly, the management literature has recently dedicated attention to the issue of climate change in the organization, which is focused on the close interdependence between the organizational context and the environment within the workplace, and there is a growing interest in organizational performance (Jabbour & Santos, 2008). As a result, climate change has become a part of management studies, from building the workplace environment to encouraging employees’ engagement with their work. Likewise, employees’ learning processes have also gained attention regarding how to develop the organizational learning climates to motivate employees to learn (Pesonen & Horn, 2014).

This conceptual paper analyzes a series of learning climate elements/factors, which potentially lead to learning organizations (LO) through individuals and organizations. Thus, the following section comprises the presentations of the prior research and the literature related to organizational learning climates concerning the influence of personal mastery-transformational, leadership-shared vision-proactivity on creating the learning environment within organizations. This section also serves as the theoretical foundation for the paper. The subsequent sections present the material and resources used in this study, the findings, discussion, and conclusions. The final section provides several recommendations for future research, including observations, and points out several of the study’s limitations.

Literature Review

Organizational Learning Climates

The scholars termed “climate” as an aspect of natural phenomena that affect industry, business, and learning. Invariably, learners are influenced by the climate within the learning place, while the topic of learning climates in different contexts has been widely studied by scholars, particularly the organizational learning climates. This part discusses the importance of learning climates in the organization and school context to broadly present the aspects of learning climates in both the business and academic sectors.

There are many studies on learning climates conducted in different locations and contexts around the globe, e.g., North America, Asia, and Europe. Recently, an empirical study of learning climates in Italy and Europe’s context investigated the learning climate in the specific training

course regarding how the trainer creates a learning climate for the learners in the training room. Sartoti et al. (2019) concluded that a learning climate is a theoretical construct related to multiple aspects of training. The learning climate underlines the trainees' daily experiences, including the formal and informal contexts in which the training takes place, the perceived atmosphere of a department, and their perceptions of the practices, procedures, and policies. Creating a healthy learning climate contributes to practical learning approaches, trainee well-being, and training satisfaction, influencing trainees' perceptions of their competencies, professional development, and resulting professional identity. Furthermore, a healthy learning climate improves the quality of learning during the training periods and provides the most effective training methods.

Similarly, researchers from Latvia in Europe studied the learning climate in the academic competency context of adolescents. Maltais et al. (2017) pointed out that many studies on learning climates that have examined the positive and negative predictors of motivation and emotional well-being in young adolescents have identified two categories of contextual factors that must be taken into account: the learning climate and the parent-adolescent relationship. The results also showed that high-security performance influences the anxiety symptoms in the classroom, and low performance in the classroom is affected by low-security attachment in the classroom as well. The psychological climate is seemingly the most effective learning climate for encouraging adolescents to concentrate and participate more in the classroom. A study of learning climates in North America conducted by Gregory (2016) found that classrooms everywhere offer a diversity of faces, shapes, and sizes. However, underneath the diversity, there are fundamental elements that all learners need to succeed and feel positive about their experiences in school. This study aligns with Maslow's hierarchy of needs (Maslow, 1943), which includes:

- The basic needs of physiology: food, water, air, and shelter
- The needs of safety: security, fearlessness, and freedom
- The needs of belongingness and love: family, friends, and society
- The needs of self-esteem: self-respect, achievement, and reputation
- The needs of self-actualization: becoming what the individual has the potential to become

As the author examines motivators, it is noted that the basic needs have to be met first for students, and it should be recognized that all humans have an extreme need to be liked and included. Therefore, classrooms everywhere must foster an inclusionary climate as students must bond with one another and the teacher to form a positive learning community.

Sangthanom and Sakulkijkarn (2020), in the context of Thailand, studied the knowledge management and organizational climates related to organizational learning among employees at Philip Securities (Thailand) and found that the organizational learning climate elements of flexibility, responsibility, standardization, awarding, clarity, and team engagement are positively related to creating a learning organization among employees. The learning climates shape knowledge management, which influences the learning organization. The factors of learning climates consist of both the physical and psychological elements that impact employees' learning, both as individuals and within the team. Employees feel comfortable and safe with a positive environment surrounding them. The clarity of job responsibilities helps create a supportive organizational climate and leads to effective knowledge-sharing management.

Table 1*Diverse Definitions of Organizational Learning Climates*

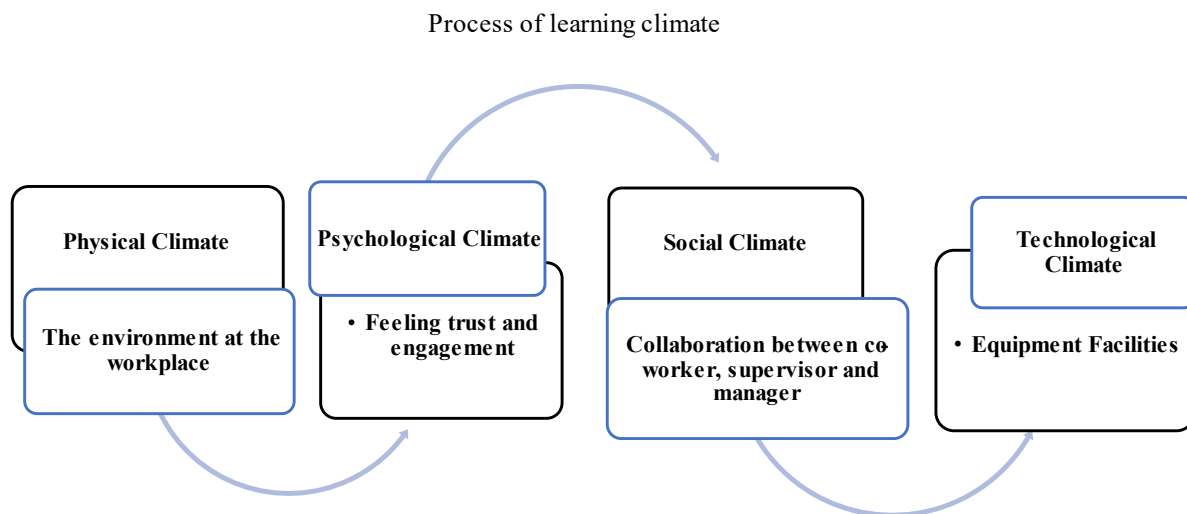
| Authors/Year | Definitions |
|----------------------------------|---|
| Adeniji (2012) | An organizational learning climate is a way of helping organizations evaluate and explain the factors related to individual employee participation in any activity within the organization, especially learning and training skills. |
| Türk and Biçer (2018) | The concept arises from the fact that the various practices and procedures belonging to an organization with the learning climate are perceived by the individuals within organizations at a particular time. |
| Martin and Cullen (2006) | Learning climate within an organization is not limited to affecting perceptions of an appropriate atmosphere that should be created within the organization. For example, a learning climate allows employees to be involved in any learning activity of the organization regardless of whether it is formal training or day-to-day informal learning through co-workers and supervisors. |
| Lemmergaard and Lauridsen (2008) | An organizational learning climate is related to the ethical aspect, as this refers to the norms that indicate how ethics are applied within organizations to enhance the organizational learning climate. |
| Tsai and Huang (2008) | The learning climate in the organization is the conceptual framework that conveys the organization's practices and procedures that are applied as a type of organizational learning climate. |
| Caniëls and Baaten (2019) | The learning climate provides encouragement, clear information, and any necessary tools to the employees as individuals to work within the organization to not cause any complications or hostile conditions in the employees' learning. |
| Gregory and Chapman (2012) | The physical attributes of the classroom influence the climate. Factors such as appropriate lighting, cleanliness, orderliness, and displays of students' work contribute to a positive atmosphere. |
| Burton et al. (2004) | The way employees perceive the environment of their internal organizations is the perceptions that employees hold about the operational atmosphere in their workplace. This is defined as the sum of employees' opinions of the organization, including trust, conflict, morale, reward equality, leader credibility, reluctance to change, and scapegoating. |
| Gerber (2003) | The organization's members' shared thoughts, sentiments, and attitudes regarding the organization's core features reflect the established norms, values, and attitudes of the organization's culture, which impact people's behavior positively or negatively. |
| Vermeulen et al. (2020) | The learning environment at the workplace is a place for some groups, in which there are several supporting facilities to achieve the company's goals following their vision and mission. |
| Olibie et al. (2015) | The organizational climate is the social and psychological environment or atmosphere that characterizes a particular organization. The organizational climate is the feeling that |

employees have about the organization. It is their perception of the way things are done in the firm.

To conclude, the diverse definitions of a learning climate result from the different dimensions. An individual's learning behavior is influenced by the premises' learning climate that allows learners to participate in any learning activities without coercion. Employees as individuals should be willing to learn regardless of the format. The learning climate must stimulate a friendly atmosphere in line with the ethics and morals of learning. The various definitions of a learning climate describe how learners, participants, students, and employees in the organizational context perceive during their learning time. Also, the learning climate impacts people's feelings positively and negatively (Khan, 2020). Therefore, individuals as learners can be affected by climate-related factors – the weather or atmosphere and the climate in the learning context, which refers to the learners' environment that impacts their motivation to learn. Social interaction and technology play a vital role in creating a learning climate.

Figure 1

Learning Climate Process



Source: Developed by authors (2022)

From the diverse definitions of organizational learning climates, Figure 1 shows the learning climate process that impacts individuals as employees who participate in learning activities. The process must be incorporated with the organization's policy to provide support for the learning process. The four elements of organizational learning climates are physical, psychological, social, and technological, which will be described in the next section.

The Elements/Factors of an Organizational Learning Climate

According to Knowles (1970), the self-concept of being an adult has several consequences regarding the requirements of an environment conducive to adult learning. First, it suggests that the physical environment should allow adults to feel at ease. Furnishings and equipment should be adult-sized and comfortable, meeting rooms should be arranged informally and decorated according to adult tastes, and acoustics and lighting should consider their declining audiovisual acuity. Even more importantly, the psychological climate should cause adults to feel accepted, respected, and supported. There is a spirit of mutuality between teachers and students as joint inquirers, and there is freedom of expression without fear of punishment or ridicule. People tend to feel more “adult” in an atmosphere that is friendly and informal, in which they are known by name and valued as unique individuals, than in the traditional school atmosphere of formality, semi-anonymity, and status differentiation between teacher and student (Knowles, 1970).

The creation of the learning climate consists of two main parts, the physical and the psychological, in enhancing the learning environment to support the learners, including formal training, and learning courses provided to staff/employees in the organization as the learners and the day-to-day learning between co-workers, supervisors, managers, and management that occurs in daily life and informal learning. Informal learning is influenced by the learning climate, which should cause the learning environment to be stimulating and motivating. However, in the organizational context, other factors of the organizational learning climate influence individual and organizational learning that can lead to learning organizations (Hendri, 2019)

Table 2

Elements/Factors of Organizational Learning Climates



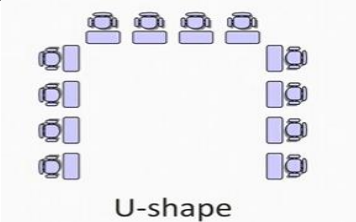
| Physical learning climate | Psychological (Emotional Intelligence) learning climate | Social learning climate | Technological learning climate |
|--|--|--|---|
| The visible objects can be seen and felt through architectural designs, equipment, premises, libraries, etc., plus sports, arts, science and health facilities, and the materials and spaces provided to learners as a learning climate. | The psychological experiences of learners in the learning climate should be safe, fearless, and respectful through human interaction, trust, and engagement. | Social interaction impacts the learning environments, involving cooperation, teamwork, peer-to-peer coaching/learning, integration, and inclusion. | The rapid and massive advances of information and communication technologies (ICTs) in educational institutes and organizations that have awakened interest in the technological learning environments. |
| Knowles (1970); Henschke (2011); Anggraini et al. (2021) | Knowles (1970); Kao (2015); Türk and Biçer (2018); Phina et al. (2021) | Palmer and Whybrow (2018); Anggraini et al. (2021) | Knowles (1970). Vermeulen et al. (2020) |

Each of the climate factors is explained in further detail below.

Physical Learning Climate Factors

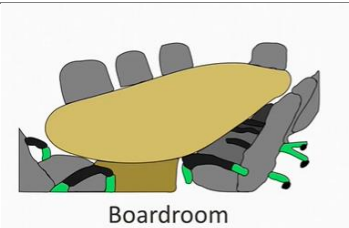
The term *physical learning climate* refers to a given learning setting's overall design and layout and its learning centers. The teacher/lecturer/instructor/trainer should design the environment by organizing its spaces, furnishings, and materials to maximize the learning opportunities and the engagement of every learner (Knowles, 1970). The physical aspect is not only concerned with the size or the style of the setting, but it also includes the facilities of lighting and equipment as well as the sounds and smells (Henschke, 2011). Each of the items impacts the learning climate and learning activities.

Table 3*Physical Learning Climate*

| Physical climate | Description/Effect of the physical climate on learning |
|---------------------------------|---|
| 1. Learning setting arrangement | |
| - Traditional classroom |  <p>Traditional classroom</p> <p>The typical arrangement is learning and teaching in a traditional setting. In some training programs, this style is also used.</p> <p><u>Pros:</u> Learners can move around when they do activities and interact with friends, and the teacher can also move around the room to interact with students individually.</p> <p><u>Con:</u> There is a trainer-centered focus if the trainer does not move around or rarely moves in the classroom.</p> |
| - Lecture theater |  <p>The lecture theater arrangement is one of the traditional ways to deliver lectures with a large group of participants.</p> <p><u>Pro:</u> It can include a large number of participants.</p> <p><u>Con:</u> It is difficult to reach out to one participant or ask to move around.</p> |
| - U-shape |  <p>U-shape</p> <p>In this classroom arrangement, every learner can see each other due to the seat setting, and the teacher/trainer will stand in front of the participants.</p> <p><u>Pros:</u> The teacher/trainer can interact and participate with everyone, and it helps to keep the participants alert to participate, as everyone can observe each other.</p> |

Con: It can heighten learners' emotions when they observe everyone and the trainer.

- Boardroom

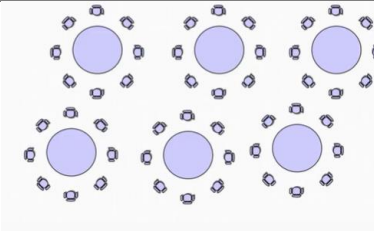


This style is mainly used in the corporate environment with a small group of participants.

Pro: Learners can participate closely, suitable for brainstorming and case study discussion with highly effective outcomes because the others observe everyone.

Con: Some participants may feel uncomfortable when discussing with others within the limited space.

- Cluster seating



This is used when the classroom/training room is divided into groups of participants, providing an opportunity to interact among learners or as a mixer of different departments.

Pros: Participants can get to know one another from different areas and easily exchange ideas between learners, and the teacher/trainer can move around the clusters from time to time.

Con: Some participants may request seating only with their friends, so the teacher/trainer must provide clear instructions.


- Round table



This classroom arrangement is similar to the U-shape, but the seating is closer to each other. This style can be applied in educational institutes and corporate training programs.

Pro: Every participant feels energized to participate and can observe everyone in the classroom, including the trainers.

Cons: It is not easy to get participants to move around, and the environment might feel pressured.

| | |
|--|--|
| - Social distancing room |  <p>Amid COVID-19, seating for training or learning needs to be set up in ample space, with space between the seating of participants to ensure social distancing compliance.</p> <p><u>Pros:</u> Provides a safe environment, focusing on individuals and hygiene.</p> <p><u>Con:</u> Distancing between participants and trainers must be maintained as effectively as possible to ensure that everyone pays attention to the lesson.</p> |
| 2. Lighting | Warm and natural lights should be used during the training, and adjustable lighting makes the learners relax and feel safe. |
| 3. Temperature | It is recommended that the temperature be set between 18 to 22 °C during the learning sessions. The learners will feel comfortable within this temperature range. |
| 4. Noise | Prevent any noise because it will disrupt the participants' attention. |
| 5. Mechanical devices | The use of any mechanical items must be efficient for the participants and specifically for adult use. |
| 6. Unpleasant smells | Prevent any bad smells, ensure that toilets are appropriately closed, and not allow food in the training room. In addition, the providing of good smells or aromas should be encouraged to enhance the environment and cause participants to be energetic to learn. |
| 7. Equipment and materials | Equipment must be adult size, and materials such as stationery should be something that they feel familiar with. |
| 8. Common areas (Pantry, Coffee break) | These allow employees to interact with each other during their break time. In addition, it is worthwhile to exchange ideas and learn from one another as informal learning on a day-to-day basis. |

Psychological Learning Climate (Emotional intelligence) Factors

Any learners or students living in fear cannot learn. The phenomenon of “downshifting” is “the psychophysiological response to threats associated with fatigue or perceived helplessness.” The psychological learning climate or emotional intelligence refers to feeling safe and fearlessly thinking during the learning activities, and the relationship between learners and the trainer to create a pleasant atmosphere (Hartanto, 2009). It is also suggested that learners/students will not focus on learning if their primary concern is safety. Table 3 shows the factors of the psychological impacts on the learning climate.

Table 4*Psychological Learning Climate*

| Psychological factors | Descriptions |
|-----------------------------|--|
| 1. Feeling of safety | Employees experience psychological safety and the shared belief that it is safe to take risks and voice opinions. As a result, employees feel unafraid to make mistakes. |
| 2. Shared beliefs | They are likely to feel free to take the initiative to experiment, take risks, and propose creative ideas. Sharing between co-workers and supervisors is also the best way to learn without hesitation. |
| 3. Shared values | They experience sharing the achievements and commitment to the same goals of the organization. |
| 4. Trust and engagement | Open communication and honesty among the co-workers initiated by the organization's culture build the environment of trust and feeling engaged. |
| 5. Friendliness and respect | The relationship between co-workers, supervisors, and managers must be built before starting work at any organization through team building and orientation that helps to create a work environment that is friendly and respectful. The structure of the communication network must be clear for the reports and flow of conveyed messages among co-workers to create a psychological learning climate in which all employees can feel comfortable, safe, and engaged with the organization. |
| 6. Communication | |

Social Learning Climate Factors

Social learning approaches are varied but commonly include cycles of knowledge sharing and joint action to co-create knowledge, relationships, and practices among diverse stakeholders. This results in learning and changes that go beyond the individual into communities, networks, and systems (Argote et al., 2021). The learning involves external inputs, and individuals become involved with one another. The organizational context can refer to the relationships within teamwork, peer-to-peer learning, and the staff and supervisor or facilitators who provide the learning activities to the learners.

Table 5*Social Learning Climate*

| Social factors | Descriptions |
|-----------------|---|
| 1. Teamwork | Fostering collaboration and interaction with teams, managers play a vital role in creating good teamwork through communication regarding all kinds of matters and openness among the team to create the teamwork factor of the learning. |
| 2. Peer-to-peer | Peer-to-peer learning is also uniquely well suited to the way that we learn. People gain new skills best in any situation that includes all four stages of the "Learning Loop": gain knowledge, practice by applying that knowledge, receive feedback, and reflect on what has been learned. Peer-to-peer learning encompasses all of these. Although the structure of peer learning is horizontal rather than |

| | |
|-----------------|--|
| 3. Facilitators | hierarchical, it is vital to have a neutral party who is not the team's manager to facilitate the program to keep it on track. Ideally, this person is a skilled facilitator who should organize sessions, keep everyone on topic, keep conversations moving forward, and maintain a positive atmosphere in which participants can learn, experiment, and ask questions. |
|-----------------|--|

Technological Learning Climate Factors

Technology ushers in fundamental structural changes that can be integral to achieving significant productivity improvements. Used to support both teaching and learning, technology infuses classrooms with digital learning tools, such as computers and handheld devices; expands course offerings, experiences, and learning materials; supports learning 24 hours a day, seven days a week; builds 21st-century skills; increases student engagement and motivation; and accelerates learning.

Table 6

Technological learning climate

| Technological factors | Descriptions |
|---|--|
| 1. Information communication technology | ICT plays an essential role in learning development nowadays in educational institutes and organizations that provide learners with access to knowledge. Thus, it is necessary to have ICT in learning development with all learning levels. |
| 2. Internet access | Throughout the premises, the Wi-Fi signal should be provided to help create the learning climate in which learners can access the internet and search for the knowledge they desire. |
| 3. Devices, i.e., computers, laptops, iPad or mobile phones | It may not seem crucial to have these devices to encourage learners to learn; however, learners can access learning materials and create a highly effective learning climate through such devices. |

Antecedents and Consequences of Organizational Learning Climates Leading to Learning Organizations

The distinction between individual learning and organizational learning must be clear. Although individual learning is essential to organizations, organizational learning is not simply the result of each member's learning. Organizations, unlike individuals, develop and maintain learning systems that influence their immediate members and are then transmitted to others by way of their organizational culture. Therefore, building the organizational learning climate is necessary for the individual's learning stimulation (Phina et al., 2021).

Organizations themselves do not have brains, but they have cognitive systems and memories to motivate an individual member to learn or not to learn. As individuals develop their personalities, habits, and beliefs over time, organizations develop world views and ideologies. Employees may come and go, and leaders change, but an organization's learning climate maintains all employees' specific behaviors, mentalities, norms, and values over time. García-Morales et al. (2006) stated that those organizational learnings are dynamic capabilities that integrate/build/reconfigure competencies to address rapidly changing environments. This proposal implies that organizational learning simultaneously integrates strategic factors/capabilities.

The previous studies showed the relationship between organizational learning climates in three broad categories of proactive behaviors. First, learning from failure is a relevant performance-enhancing strategy for individual achievement. The role of an organizational learning-oriented climate impacts employee resilience and, in turn, their proactive behavior (Caniëls & Baaten, 2019). The first antecedent analyzed is personal commitment, the discipline of personal growth and learning. Vithayaporn et al. (2021) emphasized that people with high levels of personal commitment continually expand their competencies and abilities. Second, people will continue learning to fulfil their commitments due to the environment in the workplace that motivates them to participate in learning activities. The physical, psychological, social, and technological factors play a vital role in integrating the learning climate enhancement.

The consequences indicated that building an organizational learning climate is positively related and impacts employee resilience to stimulate and enhance the employees' performance. In addition, it facilitates proactive work behavior, proactive strategic behavior, and proactive personal environment fit. Therefore, it impacts organizational performance when an individual actively participates in learning because the organization builds the learning climate among employees. The analysis of both employee proactivity and the environment is necessary because they impact the learning climate within the organization involving trying to adjust the environment to provide the most benefits for oneself. The organizational learning processes are facilitated, evaluated, and improved by enhancing the environment (Senge, 1990b).

The learning climate and the quality of an Italian gynecology and obstetrics training course were studied by Sartori et al. (2019). They employed a quantitative approach to assess the learning climate variables, in which the physical, psychological, and social climates were combined. The most substantial influence on learning was feedback and peer collaboration, which are regarded as components of the social climate. The results of different studies on learning climates in a range of contexts and geographical locations illustrate the variety of the factors of learning climates, which depend on the objectives and target sampling of the research. Nevertheless, in most studies, the psychological climate factors were used as the variables to test different areas in the model of learning climates.

The term *learning* is described by Senge (1990a) as "In dialogue, a group explores complex difficult issues from many points of view. Individuals suspend their assumptions, but they communicate their assumptions freely". The result is a free exploration that brings to the surface the full depth of people's experience and thought and yet can move beyond their personal views (Senge, 1990a, p. 241). In addition, a learning organization's characteristics include being "able to deal with the problems and opportunities of today and invest in its capacity to embrace tomorrow" (Senge, 1990b). Moreover, Senge summarized the five learning disciplines embraced by learning organizations that provide the basis for change as follows:

- (1) Personal mastery concerns encouraging personal growth to achieve one's goal.
- (2) Reflection upon, clarification, and improvement of the mental models of the work and assessment of the ways that they influence performance.
- (3) Creation of a shared vision to strengthen the team's commitment.
- (4) Development of synergy by creating group learning by enhancing collaborative conversations and collective thinking.
- (5) Systems thinking refers to a contemplation of the influencing factors and interdependent relationships that shape systems.

The advantages provided by learning organizations include improved quality and customer service capabilities, enhancement of competitiveness, and development of an energetic and dedicated workforce capable of accepting change and adopting innovations. A learning organization is involved with the complete range of learning levels as a function of the organization. Popper and Lipshitz (2000) studied the UK have asserted that the characteristics that learning organizations develop are as follows:

- (1) Strategies for adopting continual improvement, participation, and experimentation.
- (2) A culture of focusing inward to develop effective internal collaboration and customer satisfaction.
- (3) Organizational structures that emphasize employees' work and careers to facilitate expansion and flexibility.
- (4) A culture of focusing externally to assess the environment and create partnerships and joint ventures.
- (5) Creation of learning opportunities that facilitate self-development through risk-taking and experimentation.

Because the knowledge has been acquired by individuals, to a large degree it exists within those individuals (i.e., their minds and bodies) and their competencies and behaviors, thus the transfer of knowledge should be from individual to individual rather than between individuals and the collective memory of the organization (Senge et al. 1994). In this way, the organization is like an ideal educational institution instead of a storehouse. Thus, a climate that enhances individual learning will be provided by the organization, and rather than being directors; managers should act as coaches (Senge, 1990b). Consequently, the learning organization is a result of the organizational learning climates.

Methods and Resources

This paper used a qualitative research methodology, focusing on organizational learning climate concepts. A literature review, case studies, and a document analysis technique were conducted. First, the author collected peer-reviewed articles published in relevant journals such as the *Journal of Organizational Effectiveness, Performance, and People* and the *International Journal of Business Management*. Based on the 100 identified primary studies, the author developed two clusters of learning climates in organizational contexts and their importance: the antecedents and the consequences of organizational learning climates that lead to a learning organization. A systematic literature review method was also adopted to examine the existing research articles, which provided the advantage of transparent and explicit protocols by which researchers search for and assess the field of studies relevant to a specific research topic and is thus, widely used in the organizational development, business, and management fields (e.g., Macpherson & Holt, 2007; Deng, 2012). This sampling method was used to extract the analyzed and synthesized articles in this study.

Firstly, the author searched through the following databases: Scopus, Web of Science, Ebsco, and PubMed from the recognized publishers such as Elsevier, Emerald, SAGE, and Taylor & Francis. Secondly, a search was conducted with the keywords found in academic research titles, such as *learning climate*, *organizational learning*, *organizational learning climate*, and *learning organization*. Thirdly, the author analyzed the research titles and key conclusions in the abstracts of the selected literature, and then, the filtered results were exported to the reference management

for further analysis. Furthermore, a thorough analysis of each article using inclusion and exclusion categorization criteria was conducted (Macpherson & Holt, 2007).

For the analysis, a thorough search of 100 articles was conducted, then duplicates were identified, and articles were excluded based on the exclusion criteria. This resulted in 50 final articles matching the inclusion criteria based on the categorization criteria. The results are related to organizational learning climate topics and learning organizations with the various user data, such as theoretical frameworks, research findings, and future research recommendations. Throughout this iterative search, including keyword searches and title and abstract analysis, fifty primary articles and the full text were archived for further analysis.

Inclusion Criteria

According to Snyder (2019), adopting the inclusion criteria provides a standardized process to search for the relevant literature. Thus, three criteria of inclusion were applied in this systematic review, which was 1) peer-reviewed academic papers from the databases of Scopus, Web of Science, PubMed, and Ebsco, 2) the most relevant studies on learning climates concerning the organizational context, and 3) specifications of the definitions of organizational learning climates, as well as the antecedents and consequences of organizational learning climates.

Exclusion Criteria

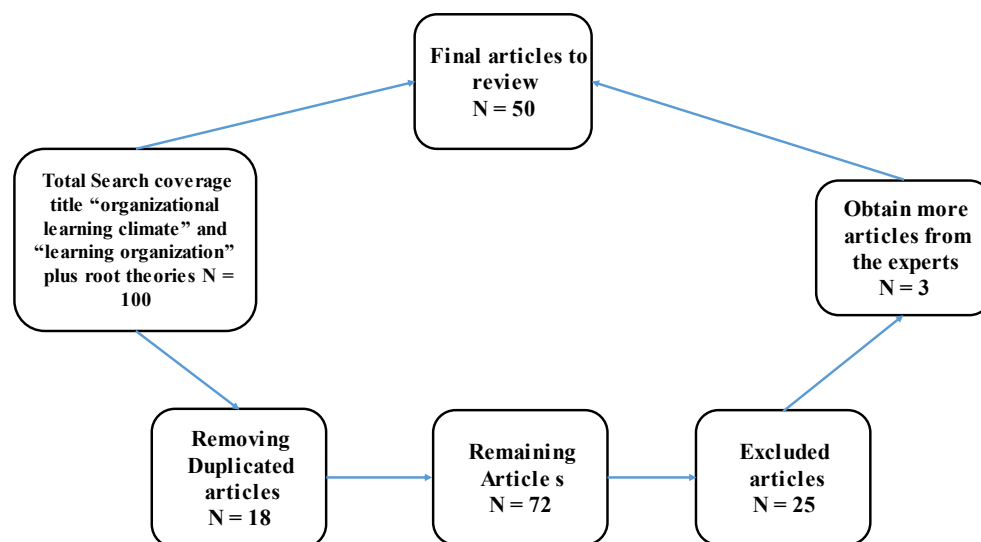
An exclusion evaluation of the articles was conducted to identify and eliminate irrelevant articles. First, studies not related to the organizational and management perspectives were excluded, for example, the research on learning climates in secondary schools in a purely educational context. Second, if an article examined the influence of learning and development on organizational effectiveness without the learning climate factors, it must be excluded. Lastly, peer-reviewed academic journals were emphasized; therefore, non-academic journals, conference papers, working papers, and corporate reports were excluded, in line with Rana et al. (2016).

Quality Assessment

For this paper, a systematic review of the literature was conducted using the criteria outlined by the Database of Abstracts of Reviews of Effects (DARE), the Centre for Reviews and Dissemination (CRD), and York University (Snyder, 2019). This led to the construction of four quality assessment (QA) questions, as follows:

- QA1. Were the inclusion and exclusion criteria of the review clearly described and suitable?
- QA2. Did the literature search comprehensively include all relevant studies?
- QA3. Was the quality/validity of the included studies evaluated?
- QA4. Were there adequate descriptions of the basic data/studies?

Thus, as previously mentioned in the inclusion criteria, it was ensured that only peer-review articles that were published in recognized indexed journals were selected. Additionally, all the selected articles are relevant to the area of study and sufficiently satisfy the quality assessment questions above.

Figure 2*Review Process*

Furthermore, meta-analysis was used in this study to align with the systematic literature review. First, the author identified the literature from the databases related to the study and the gaps in the literature on organizational learning climates and learning organizations. Second, this study’s selection of data, such as the organizational learning climates and organizational culture, and knowledge management through learning climates, was conducted to review and extract the data related to this study. Finally, abstraction of the content with the most closely related and synthesized data for this study was performed, and lastly, the analyses and syntheses of the data were done and are presented in the findings section. In addition, the discussion and conclusions are presented in the subsequent section.

Findings

The cooperation among learners substantively results from the venue’s climate regarding their willingness and motivation to participate in the learning activity or an informal conversation. Informal learning can be created through the relationship among employees, bolstered by the learning climate at the workplace. Thus, the learning climate reinforces an individual’s intention to learn regardless of any forms of learning within the organization. Maslow’s theory of the hierarchy of needs is best described as the factors of a learning climate that align with the needs of humans in their lives ranging from the basic requirements to the highest self-achievement. Luhman and Cunliffe (2013) studied the key concepts of organization theory and stated that the factor of organizational learning climate enhancement influences individuals to learn; moreover, it is the leap for the transition to the learning organization.

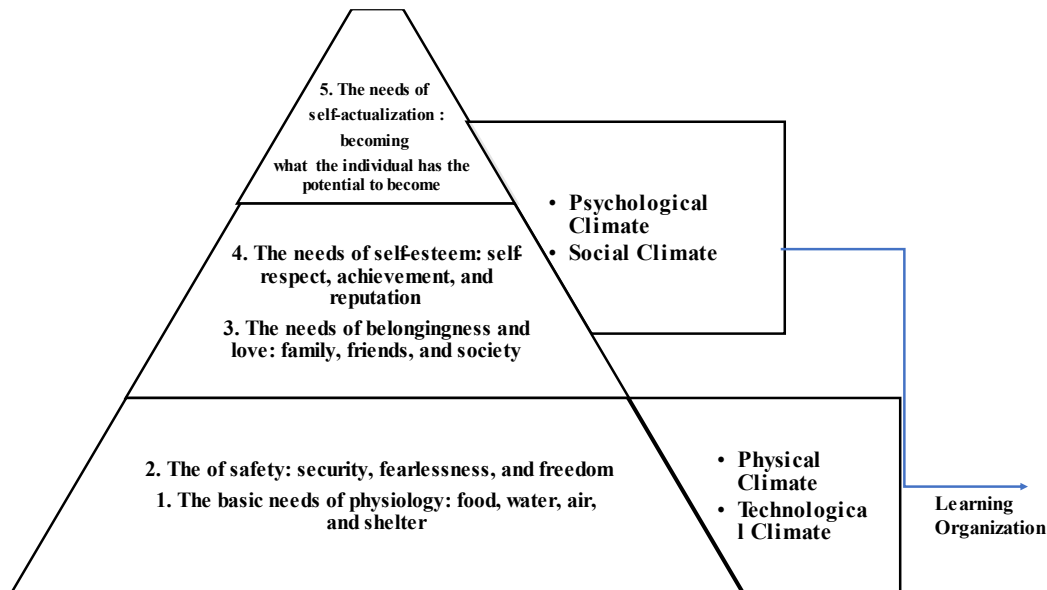
The physical climate, the different classroom settings provide a variety of methods for lecturing delivery; thus, trainers/teachers need to decide which classroom style is best suited to them and the outcomes of learning related to the settings. It is difficult to predetermine which classroom style will result in the best learning outcomes as it depends on what types of learning

spaces can be set up within the available spaces. A survey of learner satisfaction on which type of classroom provides them with the most effective learning must also be conducted. Other factors such as light, sound, smell, and equipment should be planned according to the learner's style to best fit their needs and preferences.

The psychological climate is the relationship among people in the learning places, classrooms, or the organization. Building a good atmosphere with trust and engagement among learners and teachers is the best psychological climate. People will learn more and participate more when they feel comfortable at the premises in which a good psychological climate has been created. The psychological climate factors may seem very abstract, but they must be prioritized due to having more impact than physical climate factors.

In other cases, a social learning climate can refer to the family as one of the stakeholders who impact a student's learning context. For employees, building a social learning climate can help individuals achieve their learning goals. Social climate factors seem like psychological ones because they include the cooperation between society and an individual's learning that increases the positive feelings, emotions, and trust between co-workers. Social learning climates can be varied in the different contexts and stakeholders' involvement in creating the new approaches of the learners and external society. For example, family members will influence students, whereas employees are shaped by teamwork and peers. Most importantly, when knowledge is shared within a community as the social learning climate, it can contribute to the community.

During the COVID-19 pandemic, technology has undoubtedly played a vital role in supporting learning activities. However, this is not an easy transition, and success depends on educators having the skills, knowledge, and competencies for online teaching (Mengistie, 2021). As part of the Adaptive and Inclusive Learning Environment (AILE), every learning activity has gone to the virtual or online learning mode, particularly in educational institutes. Therefore, internet access has become one of the most powerful tools for learners to participate in any learning activity as the organizational context relies heavily on digital platforms because many staff members currently work at home with their devices.

Figure 3*The Conceptual Diagram of Learning Climate*

Source: Developed by authors (2022)

Figure 2 displays the alignment of learning climates elements with Maslow's hierarchy of needs theory. The result of organizational learning climates is influenced by four elements (Physical, Psychological, Social, and Technological), which are represented alongside the five stages of human needs and potentially lead to a learning organization.

Discussion and Conclusions

The physical factors also have a significant impact on the learning process in that such materials must be equipped in the adult size for their use; for example, tables and chairs must be appropriate for their size and comfortable throughout the learning sessions. In combination, the physical and psychological climates factors can help create an effective learning climate in any learning setting. This deep analysis of learning climates aligns with Abraham Maslow's hierarchy of needs as it shows that basic human needs influence learning activities. It is a helpful comparison to investigate beyond the needs of humans and adapt the findings to construct the learning climates because learning climates are created and do not just happen. Although the venue's atmosphere can automatically create the learning climate, a venue with a fresh airflow can create a relaxing atmosphere that is a comfortable place to learn; thus, a learning climate must be specifically created most of the time.

Learning climates of psychology likely impact children (in a student role), including adolescents, due to young learners needing attention from the teacher. They must feel fearless

because of the atmosphere to learn more and participate more. On the other hand, adult learners are more concerned with learning and focus more on the content. Therefore, although the climate might not be supportive, adult learners have more responsibility to commit to learning. Nevertheless, this does not mean that the learning climate is not essential for adult learners because it is essential to provide a suitable learning climate for adults. Furthermore, they must be respected and honored as learners, which is the primary responsibility of the instructors or teachers during the class.

Supported by social learning climate will be effective when we know who the learners are and whom the trainer to deliver the lesson because we can then organize the relevant factors of the learners' physical, psychological, social, and technological climates. Building the learning climate in the organizational context, employees have the different layers of their position level, characteristics, and learning needs. However, an effective learning climate can be created; it does not occur spontaneously. Seemingly, creating a learning organization relies on the employees' learning to drive the organization, and the employees' learnings are influenced by learning climate and sharing knowledge among employees. Moreover, technology enables the learning climate effectively when an employee can access and participate through the technological devices in particular the social distancing constraint of COVID-19. Therefore, the learning climate can help create a sharing atmosphere to share knowledge among employees. The learning climate is essential to enhance employee learning organization and innovative work behavior

Organizations' leaders have an essential role in creating and implementing the conditions that facilitate the development of the learning climate factors' strategies to enhance the employees' capabilities (Diamantidis & Chatzoglou, 2019). Firstly, they must encourage the organization's members to achieve high levels of personal achievement, since this development will enable them to take more initiative and broaden and deepen their sense of learning. Secondly, leaders must work to foster a climate in which the principles of organizational learning are practiced and lead to a learning organization (Fikri et al., 2021). Nothing is more important to an individual committed to his/her achievement than a supportive environment within the organization as the learning climate. This environment can be provided by continually encouraging personal goals. Lastly, the management style must be more transformational to establish the learning climate based on the various factors of creating learning climates, as previously mentioned in the literature review.

Creating a shared vision and enabling the formulation of organizational strategies and structures enables firms to confront the challenges of knowledge sharing management, which can potentially facilitate the leap to a learning organization (Ribeiro et al., 2018). The four mentioned factors of learning climates, the physical, psychological, social, and technological, influence the organizational learning's transition to a learning organization. According to Senge (1990b), the principles of a learning organization's enhancement consist of the roles of individuals as employees and the organization's vision created by the leaders, which is integrated with the factors of the organizational learning climate. Undoubtedly, the principles of learning organization enhancement are influenced by the factors of learning climates, which is the foundation to facilitate the learning organization.

Limitations and Recommendations

Inevitably, the study's limitations are as follows; firstly, the previous studies on the learning climates in business management and organizations are quite limited. Secondly, the outcomes of learning organizations are mainly focused on individuals in the previous research; thus, the analysis and synthesis into the organizational context as outcomes must be extracted. Lastly, the past studies emphasized the cross-sectional studies from different sample groups and sampling methods. Futures studies, therefore, should be based on a larger sample, preferably in a longitudinal study, as the climates that affect the learning organizations change over time.

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