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# Navigating Organizational Excellence in the Post COVID-19 Era: A Prescriptive Analysis of Senge's Five Disciplines for Maintaining Organizational Sustainability and Creating Adaptive Learning Systems

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**Abstract:** This study uses a multiple case study analysis to explore common themes in challenges that organizations encountered during the COVID-19 pandemic. The study suggests that organization's reactive culture to adapting to change and staying afloat in turbulent times is not sustainable, causing strains across different organizational functions. Some common themes identified from the case studies include reactive cultures, social and psychosocial challenges, operational challenges as well as non-preparedness for change. There were also challenges in work-life balance, as employees had to quickly adapt to a totally different work mode with little to no training; changes in technological applications, as well as employee exhaustion and lack of motivation. The study further proposes an applicable model of organizational change as a helpful tool to aid organizations better manage change. Senge's Five Disciplines are put forward as a prescriptive model to support organizations through change and adopt a proactive, rather than reactive approach for sustainable organizational growth.

**Keywords:** Learning Organizations, Systems Thinking, Senge's Five Disciplines

## Introduction

Year 2020 changed the dynamics of the workplace as the world was struck by the COVID-19 Virus, causing a significant re-direction of business operations, human relations, as well as overall ways of life. According to an article published by the National Library of Medicine, the World Health Organization on March 11, 2020, declared the COVID-19 outbreak a global pandemic, causing major shutdown of world systems globally (Cucinotta & Vanelli, 2020). Some of the radical organizational changes as posited by the SHRM Release COVID-19 Business Index include that over 65% of employees who are salaried and 49% of those who work hourly were subjected to working from home. Likewise, there was an anticipation that about 99% of American employers will furlough salaried workers (SHRM, 2020). It was then evident that organizations needed to evaluate and reevaluate their business strategies in many areas to stay afloat.

Following the declaration of COVID-19 as a pandemic in 2020, in May 2023, the World Health Organization declared an end to the pandemic, stating that COVID-19 is no longer a global health emergency (Duff, 2023). The big question is: did the end of the pandemic imply that businesses could return to old business practices? With the massive disruption of the social, political, and economic systems (Peters et al., 2022), as well as the

series of lessons learnt posed by the pandemic, it is imperative that organizational leaders seek innovative ways to build systems that are more prepared, and to create organizational development structures that keep the organization in a constant state of readiness for change. There is, therefore, the need for organizations to foster a learning culture that enhances their capacity for high productivity.

This study provides a prescriptive analogy of the effective use of Senge's (2006) concept of the learning organization. Through a multiple case study approach, this study will explore the applicability and adaptation of the five disciplines framework as provided by Senge (2006). The five comprehensive disciplines of the learning organization include Personal Mastery, Mental Models, Team Learning, Shared Vision, and Systems Thinking. This study will further draw on empirical studies and theoretical epistemologies to provide insights into organization development strategies that integrate Senge's concepts of a learning organization as a comprehensive approach to sustaining systems in the post-pandemic era.

## Case Study Analysis

Seven case studies were thoroughly reviewed to provide a robust perspective on organizational challenges and human effects during the COVID-19 pandemic. Lyzwinsky's (2024) review, which utilized 62 studies, analyzed the effects of rapid workplace changes in the healthcare system across different nations. The review covered several countries in North and South America, Asia, and Europe, and revealed variable challenges in work stress, social isolation, mental health declines, work-life balance, and overall work productivity. To summarize the outcomes of the review, there were higher percentages of negative outcomes on the prior mentioned variables (Lyzwinsky, 2024). Likewise, another case study by Byrnes et al. (2024) explored the experiences of the New York City Department of Health and Mental Hygiene's response strategy during COVID-19 pandemic. This paper highlights the non-preparedness of the NYC DOHMH for the pandemic causing gaps in their deliverables. A couple of factors relating to the non-preparedness of the department include operational capacity, limited funding, building trust between them and community members, and strategic positioning of the department to make data-driven decisions. Although Brynes' et al. (2024) case study showed certain areas of positive action for NYC DOHMH such as in-home vaccination, there were several internal challenges with slow pace of action, balancing tradeoffs, and narrow-minded thinking. Comparably, a case study describing new employee orientation as a strategy to equip employees on the needed organizational changes in Jackson Health System Florida was provided by Campuzano (2022). The new employee orientation, which Campuzano (2022) described as a one-day program that was held in person, was Jackson's way of responding to the COVID-19 pandemic, providing new hires with the needed strategies to effectively perform at their jobs. While the case study expressed pride in the orientation, one would question the effectiveness of the orientation in addressing the critical challenges posed by the pandemic. More specifically, the orientation was provided to new employees; what were the strategies to support old employees? It is imperative to note, however, from Campuzano's perspective, that there were recommendations for a reorientation of technological usage amongst different generations (technological divide) in the workforce, the need to strengthen structures for online learning which was fast becoming an unavoidable process, as well as issues regarding access to technology (Campuzano, 2022).

From a higher education perspective, a case study of Rutgers University showcased its strategies for combating the pandemic as an exemplary model for other institutions. Despite their position as being effective with dealing with the pandemic, they highlighted areas of difficulty including decision making complexities, social distancing, financial

challenges, high demands for health care workers and services to manage a university population, as well as the needed technology to successfully transition into remote learning (Calcado et al., 2021). Another study by Haydar et al. (2022) examined COVID-19 response strategy and challenges at the Milken School of Public Health. According to the Milken Institute case study, higher education faced the challenges of rapid relocation to online modes of instructions, leaders and managers faced with virtual/hybrid workforce management, redirection of research focus to address the pandemic, financial issues, student and employee support, as well as admission and student retention. Haydar et al. (2022) posited that the Milken Institute of Public Health utilized the Public Health Preparedness and Response Competency Model (CDC & ASPH, 2010) of emergency response in addressing the critical issues posed by the pandemic. This four-part model includes model leadership, communicate and manage information, plan for and improve practice, and protect worker and student health and safety (CDC & ASPH, 2010). The Milken Institute case study further predicted expected areas for continuous improvement for higher education including workforce management, more effective response management, employee morale, technological applications to handle learning management systems, as well as faculty training to manage unforeseen events (Haydar et al., 2022). Despite using the Public Health Preparedness and Response Model to address issues at the Milken Institute, one might question the timeliness of its implementation since the model itself has several moving parts.

Chui (2022) presented a case study of non-profit organizations' struggle for survival and service continuity in Hong Kong, expressing concerns about disaster management, limited knowledge of external shock management, adaptive cultures and effective work processes. Chui (2022) further posited that rather than enforce a lockdown policy, Hong Kong took a more freedom-like approach by strongly encouraging stay-at-home options, which created two major challenges, including non-profits' struggle with service delivery as well as handling psychosocial challenges. Some additional challenges of non-profits, according to Chui (2022), were organizations' capacity for performance and service delivery to the elderly and vulnerable populations, which created issues of accessibility. Likewise, a case study from a food network non-profit in Virginia, USA, examined the challenges posed by the pandemic to vulnerable individuals and posits the need for nonprofits to learn operational strategies amidst a pandemic (Azevedo, Haupt, & Markoski, 2022). In this case study of a Virginia food bank (which is the largest food relief network in the State of Virginia with a vision to end hunger in Commonwealth nations), Azevedo et al. (2022) reported that nearly 75% of foodbanks were affected by the pandemic as provided from a report by Reuters (Dowdell & Lesser, 2020), adding that food banks faced challenges of limited supplies and decline in the number of volunteers. Similar to Chui (2022) concerns about serving the elderly in Hong Kong, Azevado et al (2022) offered a different perspective stating the elderly formed a larger part of the volunteer population at a food service non-profit, and since the elderly were more susceptible to contracting the Corona Virus, it was a dilemma finding manpower to meet the increased service demand of the food bank. Overall, both Chui's (2022) Hong Kong case study and Azevado et al. (2022) expressed operational challenges, a need for technology, and inadequate emergency response management, calling for adaptive strategies for more effective operational outcomes.

In all 7 case studies, there were challenges relating to human, technological and operational factors. Advancement in technology (Beer & Mulder, 2020) and boundaryless career structures (Guan et al., 2019) were fast rising before COVID-19 pandemic hit. Why were organizations not already building technological structures to meet the demands of a global ecosystem? Rather, the case studies showed how organizational leaders struggled with managing rapid change.

While some of the case studies highlighted strategies applied to address the pandemic, there are questions about future preparedness of organizations in the event of another external turbulence and sustainable practices. In summary, four themes have emerged:

- Reactive Cultures
- Social and Psychosocial Challenges
- Operational Challenges
- Non-preparedness for change

## Exploring the Concept of Learning Organization to Fostering Organizations

Bertalanffy (1968) posited a broad insight into the Systems thinking by exploring systems as complex interacting entities that cannot work in isolation and are deeply affected by the external environment. Senge's principles of a learning organization are built on the foundation of Systems thinking (Senge, 2006). In Senge's analogy, a system's approach implies that every part of the organization is considered in key decision making which is characterized by continuous learning. Some benefits of systems thinking are understanding the complex and interconnected nature of organizations, understanding the system of systems, as well as empowering organizations to carry out predictive analyses of organizational outcomes (Arnold & Wade, 2015). Organizations are not isolated entities and are in continuous interaction with the external environment (Ishaq & Abdullahi, 2023), also bearing in mind that understanding this interconnectedness must be rooted in a culture of continuous learning which is indeed a human characteristic (Senge, 2006).

Studies in organization development (Brown, 2011; Anderson, 2024) analyzed organizations in three different levels – individuals, teams and systems levels – positing that each level depends on the others. In the analysis of organization development, Brown (2011) specifically discussed the concept of organizational entropy (a term derived from physics and the study of thermodynamics) to imply that organizations will decline if they do not evolve or lack the flexibility to adapt to change. From his perspective, static organizations are non-evolutionary and are likely to experience entropy, therefore, systems must be adaptable (Anderson, 2024), create a culture of continuous learning (Senge, 2006), and think in systems (Senge, 2026; Bertalanffy, 1968). In the model of organization development posited by Brown (2011), the step toward positive thinking is to anticipate the need for change, as the only thing constant. In fact, in his model of adaptive orientation, Brown classified organizations with self-renewing transformational management and hyperturbulent environment as high in adaptive orientation, while organizations with reactive management and sluggish thermostat management were classified as low in adaptive behaviors (Brown, 2011, p. 36). The concept of the state of constant readiness for change is not tolerant of static and/or reactive work cultures; scholars, such as Wu et al. (2022) described a static culture as a "Dead Culture."

The state of preparedness or readiness to change was a major concern shared across the different case studies analyzed in the previous section. For example, Byrnes et al (2022) discussed the state of readiness of the NYC DOHMH to quickly adapt to change and provide timely health services to its customers; other sectors, such as the non-profit, as posited by Chui (2022) and Azevado et al. (2022), also experienced operational challenges during the pandemic. While organizations in higher education, such as the case of the Milken Institute Haydar (2022) and Rutgers University (Calcado et al., 2021), utilized preestablished models to manage the impact of the pandemic, there were still issues of technology, leadership challenges, and quick response to alternate actions, calling for a

reorientation of employees' mindset regarding organizational change. As a solution, this study proposes an adaptive learning culture through Peter Senge's 5 Disciplines.

## Senge's 5 Disciplines – A Prescriptive Analogy

According to Mohammed et al. (2024), a learning organization increases system's capacity to adapt to environmental change. To build a learning system, Senge (2026) provides five disciplines for exploration. They are: mental models, personal mastery, team learning, shared vision, and systems thinking.

***Mental Models:*** Mental models are responsible for shaping individuals' or a group's thought processes. These interrelated sets of beliefs explain our perceptions and views of the world (Holtrop et al., 2021). According to Senge (2006), mental models affect what we see and how we see it. The images of organizations shape how employees interact with that organization. To build a learning culture, the organization must first position itself as an organization that is eager to learn and quickly adaptable to change. Organizational leaders can begin changing static or 'we are already great' models to one of continuous change and improvement that can withstand external pressures.

***Personal Mastery:*** According to Brett and Dubash (2023, p. 453), personal mastery, which is closely related to locus of control or self-efficacy, describes the "generalized belief or understanding individuals hold regarding their ability to manage the circumstances of their lives." Personal mastery involves personal visions that align with organization's vision, which is then built into a shared vision. Senge (2006) emphasizes the need for organizational leaders to encourage personal visions as a strategy to become masters of self. The implications of Senge's emphasis are that organizations must be involved in building their employees to achieve high competence levels and possess change-ready mindsets. Cabera and Cabera (2023) offered some insights into skills that facilitate personal mastery, such as leadership, analytical and innovation, complex problem solving, technology use, flexibility, amongst others (p. 4). Creating learning organizations, therefore, requires highly competent employees who can drive change efforts.

***Shared Vision:*** Shared visions emerge from personal visions…personal mastery is the bedrock of shared vision (Senge, 2006, p. 196). The concept of a shared vision from Senge's perspective proposes a bottom-up and inclusive vision strategy that incorporates personal visions (Kaiser et al., 2021). The culture of the organization must be enabling for shared visions to thrive. In this case, visions about continuous learning must be encouraged and promoted throughout the organization.

***Team Learning:*** Team learning involves teams' competence to achieve their collective goals and obligations. According to Senge (2006), teams must learn to deal with the powerful forces that affect their productivity and collective growth. One of those forces could be staying active and changing swiftly in turbulent times. These adaptive competencies are not built overnight, rather, they are integrated into the team's collective values and shared mental models. Teams play a significant part in organizational success (Anderson, 2024), and their roles in systems thinking cannot be overemphasized. From the case studies analyzed, team communication was broken in most cases, which led to even more fractured operational challenges. To achieve team learning, Edmondson and Harvey (2025) provided different types of learning: reflexive (occurs inside the team), experimental (inside the team), vicarious (outside the team) and contextual learning (explorative in nature and occurs for external changes in the environment). Team learning, whether internally or externally, plays a big role in shaping a learning organization.

***Systems Thinking:*** This is the big picture. Systems thinking is the glue that binds all the other disciplines posited by Senge (2006) together. Systems thinking involves seeing the organization as a whole and not as parts. In essence, the division of organizations into

individual, team and system levels as shown in Organization Development studies (Brown, 2011; Anderson, 2024) is captured in the model of learning organizations. The image below shows how Senge's model can be used to facilitate a culture of learning.

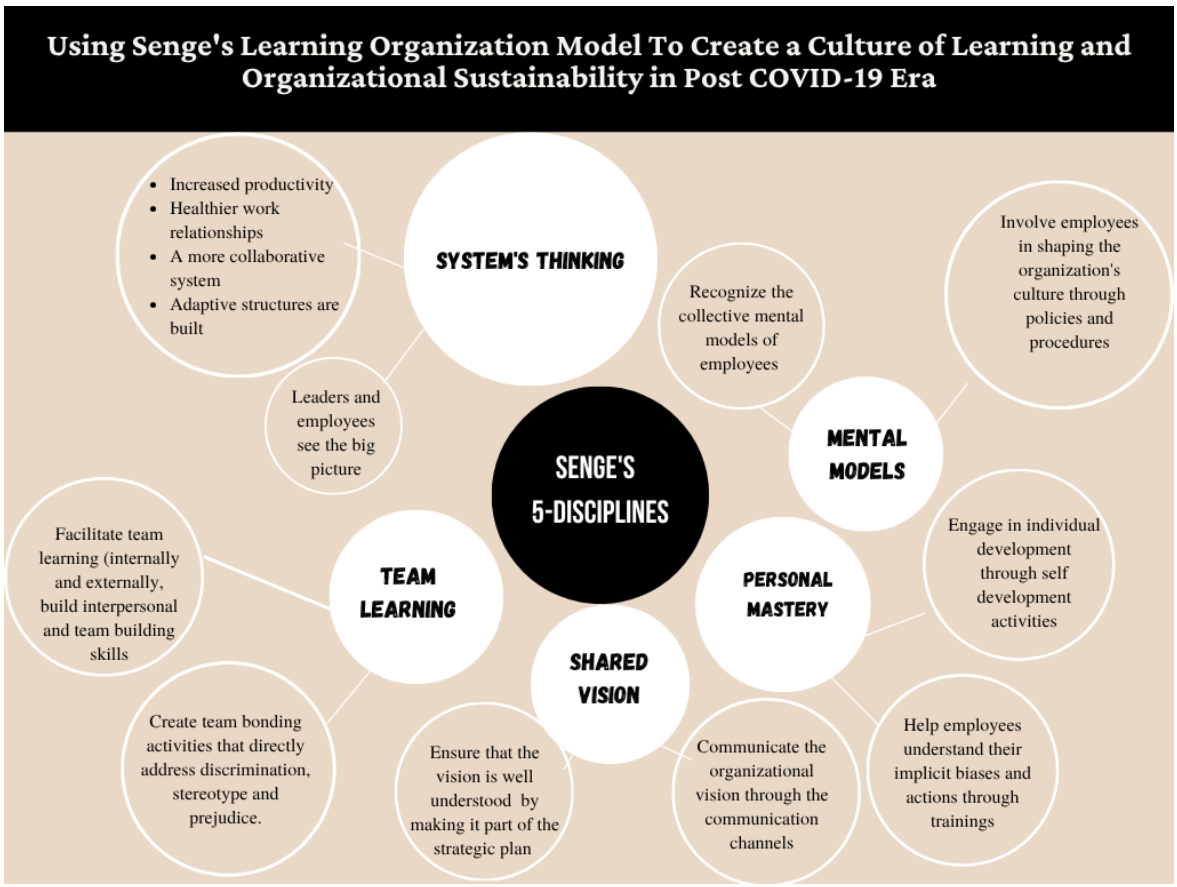


*Figure 1: A Visual Representation of Applying Senge's Model for Organizational Learning and Sustainability*

## Conclusion and Implications for Further Studies

A learning organization is possible. In Peter Senge's words, learning is human nature and humans are eager to learn (Senge 2006), however, can every organization maintain a culture of learning for effective change management? Senge (2006) explained that some organizations may possess learning disabilities which is deeply rooted in their static non-progressive cultures. As seen in organization development studies (Anderson, 2024), change is constant and organizations must be adaptable. Additionally, Kolbs, in his theory of experiential learning, emphasized that the only way that change happens is that people in organizations learn new behaviors, or new ways to do things (Kolb, 1984). Having said these, building a learning culture and working in systems involves intentionality and structures in place. As Senge puts it, "The tools of systems thinking are also important because virtually all the prime tasks of management teams—developing strategy, shaping visions, designing policy and organizational structures—involve wrestling with enormous complexity" (Senge, 2006, p. 243). While cultivating learning cultures can support organizational effectiveness in turbulent times, contingency thinking proposes that there is no single best way to lead or solve a problem (Fiedler, 1964). There is a need, therefore, to continue to find several models for organizations to adopt to help manage turbulence such as a pandemic.

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