

How Chinese Business Leaders in the Tutoring Industry

Learn to Think Strategically in a Time of Crisis

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## **Abstract**

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Chinese business leaders suffered from the crisis of COVID-19 and the Double Reduction Policy, and used various strategies and learning practices to survive the crisis. The purpose of this modified exploratory multicase study was to explore how leaders in the Chinese tutoring industry made sense of the crisis of the Pandemic and the Double Reduction Policy and learned to think strategically in a time of crisis. The study not only uncovered how Chinese business leaders used different strategies to deal with a crisis and learned to think strategically while adapting to the new environment but also brought implications and insights to business leaders about effective strategies and learning practices to cultivate strategic thinking in a complex and fast-changing world. The study addressed the following four research questions:

1. How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?
2. What strategies, if any, did the business leaders develop to deal with the crisis?
3. In what ways, if at all, did the business leaders learn to think strategically while dealing with challenges?
4. What other factors helped or hindered the business leaders' learning to think strategically in a time of crisis?

Qualitative semi-structured interviews (critical incident interviews included), surveys, and a focus group discussion were used to collect data from 15 Chinese business leaders from the tutoring industry. The study generated four findings:

Finding 1: The crisis negatively impacted the participants and their companies at different levels, but it also served as a valuable learning opportunity for their long-term development.

Finding 2: The participants developed strategies to deal with the crisis at personal, organizational, and social levels.

Finding 3: The participants learned to think strategically from direct experiences, indirect experiences, and two thinking processes—systems thinking and metaphorical thinking.

Finding 4: Policies and relationships were two outstanding factors that hindered or helped their learning to think strategically.

These findings indicated that (1) unprecedented crises like COVID-19 and the Double Reduction Policy can bring people benefits and valuable insights, (2) business leaders can develop critical strategies by combining their own and others' experiences and strategic insights into dealing with crises, (3) business leaders can use informal learning practices and deliberately use them to cultivate their strategic thinking, and (4) business leaders need to combine learning and action for cultivating strategic thinking capabilities. Lastly, business leaders should consider the influence of policies and relationships in their strategy formulation and learning process.

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## **Dedication**

To Chen Huicheng, my father, and Chen Xiuqi, my mother,  
the couple who raised me into a responsible and helpful person.

## **Chapter 1: Introduction and Overview**

*I am increasingly beginning to realize that the way I think about strategy is not whether it will be A or B, but whether we have built the flexibility to do A or B.*

— Nandan Nilekani (2022), Founder of Infosys

### **Introduction**

This modified multi-case research project explored how Chinese business leaders in the tutoring industry learned to think strategically while adapting to the new environment in a time of crisis, including the Pandemic and the Double Reduction Policy (the DRP), a strict nationwide policy in China that bans tutoring companies from offering subject-matter training and services. By utilizing a sample of 15 business leaders from subject-matter and non-subject-tutoring companies, the researcher focused on the business leaders' perception of the crises, their learning practices, and learning processes to cultivate their strategic thinking capability to deal with the challenges posed by the crises. It was anticipated that the knowledge and insights would narrow the gap in the literature on strategic thinking in Chinese contexts and support Chinese business leaders to better cope with crises from learning and strategic thinking perspectives.

### **Background and Context**

Crises are unfortunate and challenging events that may bring failure to an individual, an organization, or even a society. In today's vulnerable, complex, volatile, and fast-changing environment, crises are becoming more unpredictable and frequent, and we have been facing one crisis on top of another in recent years (Georgieva, 2022). The Pandemic and the war between Russia and Ukraine are two recent examples. However, it is business leaders' primary responsibility to comprehend and interpret crises and other challenging external forces and



develop strategies for the future using a systematic and creative approach, combining both key results of rational analysis and insights from experience (Betz, 2016). As a systematic and creative approach, learning to think strategically is increasingly critical for business leaders to deal with crises and adapt to a world that is becoming more and more turbulent (Sloan, 2020). Good strategies help business leaders and their organizations survive and perform effectively and sustainably in crises.

Business leaders in the after-school tutoring industry in China have struggled against the Pandemic and the Double Reduction Policy for the past three years. The after-school tutoring industry in China was a huge market with a great number of players. Before the crisis, there were more than one million after-school tutoring companies in China (NIES et al., 2020), offering subject and non-subject-tutoring services. The subject-tutoring companies provide services to improve students' test scores in Chinese, mathematics, English, physics, and other school subjects. Non-subject-tutoring companies offer training on students' interests and non-subject-matter skills, such as sports, chess-playing, speech delivery, and other interest-oriented programs. The market size of the Chinese K-12 after-school tutoring industry in 2019 was about \$123.1 billion and would have reached \$153.8 billion by 2025 (NIES et al., 2020). The after-school tutoring industry was one of the most competitive businesses in China, but COVID-19 and the Double Reduction Policy significantly changed the industry. The Double Reduction Policy was a state policy that reduced students' workload at school and prohibited tutoring companies from offering subject-matter training to K-12 students (Yin & Lai, 2021). Its purpose was to balance students' life and schoolwork and encourage students to develop their interests and hobbies.

COVID-19 struck the Chinese K-12 tutoring business hard, and a significant number of educational companies did not survive this global pandemic. During the Pandemic, after-school

tutoring companies owning large physical learning spaces and offering in-person tutoring were forced to shift to an online mode. This shift was a change in instructional mode and a profound strategic redirection for different companies. Still, a significant number of these companies had limited resources to upgrade their method of instruction. Additionally, more than 70% of after-school tutoring companies reported difficulty in enrolling sufficient students for online courses (NIES et al., 2020).

The Pandemic brought new challenges and uncertainty to the Chinese after-school tutoring industry, but what made the situation more complex and challenging was the Double Reduction Policy, a state policy issued by the Chinese government in July 2021. On July 24, 2021, the State Council of China issued a policy to reduce K-9 students' workload at school and prohibit all after-school educational companies from offering subject-matter tutoring services to students outside school (State Council of China, 2021). This policy has been known in China as the Double Reduction Policy (DRP), as it emphasized reducing students' workload and after-school learning activities.

The DRP created a devastating tsunami over the subject-matter tutoring industry in China, leaving little space for those for-profit subject-tutoring companies in China to develop unless they shifted to non-subject business (Wu, 2021). As a result, subject-tutoring companies had to pause their relevant services and give up their products and services for K-12 subject-tutoring. In less than half a year, more than 210,000 K-12 tutoring companies were closed and a considerable amount of employees were laid off (Fortune News, 2021). For non-subject-tutoring companies that focused on training in students' interests and hobbies, the policy brought new opportunities, as millions of students who attended subject-tutoring might turned to non-subject-tutoring programs. However, there were more regulations and restrictions on these non-subject-tutoring

companies, especially their qualifications, the price of their products, service, and training content (Zhihu, 2022). Therefore, both the subject-matter and non-subject-matter tutoring companies actively developed strategies to deal with the crisis and explore potential development opportunities.

To survive the crisis, business leaders in the tutoring industry in China need an enhanced strategic thinking capability. Strategic thinking is a fundamental cognitive ability leaders need to survive and thrive in an uncertain environment (Sloan, 2020). Leadership and strategy are intricately connected, and strategic thinking plays an inseparable role in enabling business leaders to formulate strategy and implement strategic changes (Betz, 2016). Strategic thinking can help business leaders better prepare for an uncertain future. Strategic thinkers' big-picture perspectives connect the dots between the past and the future and make key stakeholders aware of emerging trends in the economy and the industry (Sullivan, 2016). Strategic thinking can also improve the quality and performance of crisis management (Allahveisi et al., 2019). Therefore, strategic thinking is a leader's necessary and fundamental cognitive ability to initiate changes (Betz, 2016).

There is no agreement on the definition of *strategic thinking* (Bonn, 2001; Heracleous, 1998; Sloan, 2020). Some authors use the term interchangeably with *strategic planning* or *managing* (Bonn, 2001). Mintzberg (1994) summarizes the ten schools of thought to formulate strategies (Figure 1.1).

**Figure 1.1**

*Mintzberg's Ten Schools of Strategy Formulation*



Oposing the idea of strategy formulation as planning or strategic planning, Mintzberg (1994) defines strategic thinking as an evolving learning process that combines synthesis, intuition, and creativity. Betz (2016) argues that strategic thinking is about imagining a future world and taking short-term tactical actions to achieve it. Leaders need both idealism and realism to utilize the resources, skills, and insights into an organization to achieve the imagined world. Sloan (2020) believes that strategic thinking is an approach based on critical theory that requires a specific set of advanced-level and complex cognitive functions. It is a learning process that integrates conceptual and complex thinking, and it engages a rigorous process of divergent thoughts and challenges to the underlying premise of a strategy.

The researcher was curious about how the business leaders in the tutoring companies learned to think strategically faced with the crisis and what strategic insights they gained from addressing it. As Sloan (2020) points out, companies that know how to strategically and

effectively address challenges and uncertainties from learning perspectives will be better positioned to succeed. Furthermore, Pietersen (2010) states that learning is central to successful adaptation and that leaders in a changing environment should emphasize the ability of a learning organization to generate insights and apply the insights to reality. Therefore, studying business leaders' learning to think strategically may reveal valuable learning practices and processes that helped business leaders in the Chinese tutoring industry successfully survive COVID-19 and the DRP and adapt to the new environment.

### **Problem Statement**

Facing the difficulties and uncertainties brought about by the Pandemic and the Double Reduction Policy, Chinese business leaders in the tutoring industry were actively trying different approaches to adapt to the changing and challenging environment. However, business leaders in the tutoring industry suffered from double pressure from the Pandemic and the DRP and were likely to fail without effective strategies to address the challenges. Though the leaders understood the importance of strategies and strategic thinking, they needed to learn to think strategically and form proper strategies. According to Sloan (2020), the ability of learning to think strategically is the key for an organization to succeed. However, there is a gap between literature and practice in how Chinese business leaders learn to think strategically between literature and practice.

The relationship between strategic thinking and the crisis was studied and researched in different fields and industries. By using Google Scholar, JSTOR, ProQuest, and CLIO, the researcher found relevant articles studying strategic thinking in a time of crisis in international diplomacy, economic crises, public relations, war, and health care in COVID-19 (Allahveisi et al., 2019; Brønn & Olson, 1999; Hacıoğlu et al., 2016; Hunzeker & Harkness, 2014; OECD,

2020), but there was a gap in the literature on the study of learning to think strategically in a time of crisis in the Chinese context. Moreover, there was even less literature on strategic thinking from adult learning perspectives in educational fields in China.

### **Purpose Statement**

The purpose of this modified exploratory multiple-case research was to explore with a group of 15 business leaders in the Chinese subject and non-subject-tutoring companies how they perceived COVID-19 and the Double Reduction Policy, what learning practices they used to think strategically with each perception, and what contributed to Chinese business leaders' strategic thinking in a time of crisis. If completed successfully, the research findings would not only reveal Chinese business leaders' strategies to deal with the crisis and their learning practices enabling them to think strategically; the findings would also provide other entrepreneurs with insight into learning for strategic thinking and generate valuable knowledge for strategic thinking literature.

### **Research Questions**

The overarching research question in this research project was: *How do Chinese business leaders in the tutoring industry learn to think strategically while dealing with the crisis of COVID-19 and the Double Reduction Policy?* To answer this question, the following sub-questions were studied:

1. How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?
2. What strategies, if any, did the business leaders develop to deal with the crisis?
3. In what ways, if at all, did the business leaders learn to think strategically while dealing with challenges?

4. What other factors helped or hindered the business leaders' learning to think strategically in a time of crisis?

### **Research Design Overview**

This research was a multiple case study. The researcher interviewed 15 business leaders with a reputation as strategic thinkers who were responsible for their organizations' strategic direction in different tutoring companies in China. Eight were from subject-tutoring companies, and the other seven were from non-subject-tutoring companies. In-depth interviews, including critical incident techniques, were the primary data collection method. In addition, triangulation was used through the other sources of data collection: surveys and a focus group interview.

### **Anticipated Outcomes**

The researcher expected to discover how these leaders make sense of the crisis of the Pandemic and the Double Reduction Policy. Sense-making is a way “humans choose between multiple possible explanations of sensory and other input as they seek to conform the phenomenological with the real to act in such a way as to determine or respond to the world around them” (Snowden, 2005, p. 46). The researcher planned to use the Cynefin Framework (Kurtz & Snowden, 2003) to understand the leaders' sense-making of the crisis. This framework has four major domains: the Chaotic, the Complex, the Complicated, and the Obvious Domains. The researcher was curious about how leaders made sense of the crisis and how they learned to think strategically. He assumed that informal learning might be the primary type of learning when they addressed the challenges of the crisis. Ideally, the researcher could reveal the leaders' strategies, their learning processes to think strategically, and the relationship between the strategies and their learning to think strategically. Last, other factors that helped or hindered their learning to think strategically could also be explored and discussed. An ideal outcome would be

a model of the attributes of business leaders' strategic thinking or a model of learning practices to think strategically in a time of crisis.

### **Assumptions**

There were several critical assumptions about the business leaders' learning to think strategically in this research project:

- Assumption 1: Not every business leader can think strategically, but those more capable of thinking strategically are more likely to adapt to the new environment successfully during the Pandemic and the Double Reduction Policy.
- Assumption 2: How leaders make sense of the crisis affects their learning to think strategically in the new environment.
- Assumption 3: Business leaders in the tutoring industry develop their strategic thinking capability mainly from informal and incidental learning.
- Assumption 4: Certain learning practices will help cultivate strategic thinking in the business leaders' adaptation to the new environment.

### **Rationale and Significance**

The crisis of COVID-19 and the Double Reduction Policy had a profound and direct impact on the business leaders of more than one million tutoring companies around China (NIES et al., 2020). Many leaders struggled to adapt to the new environment. The findings may shed light on these leaders' strategies and learning practices to think strategically in a time of crisis if the study was conducted successfully. Meanwhile, this research would explore the business leaders' learning patterns to cultivate their strategic thinking, thus contributing to our understanding of learning to think strategically in the Chinese context.



The world has been experiencing more uncertainties, challenges, and global disasters in recent years. Learning to think strategically is a survival tool in a VUCA<sup>-</sup> world, and business leaders and their organizations may survive and thrive better with this tool. It may help leaders better allocate their available resources in a more sustainable way, especially when the leaders and their organizations are short of resources and staff. Besides, leaders will be more sensitive to emerging and promising opportunities with an enhanced understanding of strategic thinking.

### **The Researcher**

The researcher grew up in China, earned his bachelor's degree from a Chinese university, and had six years of experience teaching English at a public high school. The researcher benefited from Chinese education but also understood how urgent and difficult it was to initiate effective educational reforms to promote the progress of Chinese education. As China is transitioning from a labor-driven country to one that is innovation-driven, the quality of its education needs to be upgraded. Its education must be transformed from exam-oriented teaching to a holistic-development mode. Leaders from both public and private institutes play essential roles in shaping China's future education, and the Double Reduction Policy marked a milestone in China's educational reform. Moreover, the crisis may serve as a valuable opportunity for business leaders in education to explore how they could achieve a balance between business success and educational transformation.

As a doctoral student in Adult Learning and Leadership, the researcher assumed that by facilitating leaders to think strategically, leaders from the tutoring industry would be better at drawing strategic insights from their learning experience and dealing with changes and challenges in this crisis. Moreover, through learning to think strategically, they may find

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<sup>-</sup>VUCA = volatile, uncertain, complex, and ambiguous.

solutions to their challenging situations, thrive in the crisis, and develop their sustainable advantage in the crisis management process.

With this ongoing research on learning to think strategically, the researcher also intended to enrich his knowledge and thought repertoire on strategic thinking and use strategic thinking as a leverage point to enhance Chinese learners' awareness of adult learning and organizational learning. China has a considerable number of entrepreneurs, and offering high-quality education to these entrepreneurs is of substantial value. Strategic thinking is a synthesizing process that can be applied to discover any organization's strategic vision (Mintzberg, 1994). It will encourage business leaders to undertake provocative and critical dialogue with others for wider perspectives on important decisions. In addition, strategic thinking helps entrepreneurs build a vision for a sustainable future through creativity and innovation (Haycock et al., 2012). As a researcher and practitioner, the researcher was determined to bring the knowledge and practices of strategic thinking to more Chinese business leaders.

### **Definitions**

**Strategic thinking:** A learning and synthesizing process that collects, analyzes, and synthesizes data, experience, intuition, and creativity to formulate an integrated perspective or a vision that the organization should be heading toward (Mintzberg, 1994). Sloan (2020) defines strategic thinking as correctly constructing and understanding the issues, continuously asking questions, and critically and creatively thinking through the problems before generating long-term, innovative, and strategic solutions. In this research project, the researcher used Mintzberg's (1994) learning school of strategy identification regarding strategic thinking as a learning process and integrated Pietersen's (2010) four-step strategic learning model as the basis of his conceptual framework. The four steps are: learn, focus, align, and execute.

**Tutoring industry:** In this research, it refers to the Chinese K-12 tutoring industry consisting of subject-tutoring companies that offer services and products involving subject teaching and non-subject companies that focus on whole-person development and education, such as sports training, speech training, training programs on chess playing, and many other holistic capacities.

**The Double Reduction Policy:** A Chinese state policy that requires all K-9 schools to reduce students' workload and bans after-school subject-matter tutoring companies from offering K-9 students for-profit services and products on subjects like math and English.

**Informal and incidental learning:** Informal learning is not typically classroom-based or highly structured and is in the control of the learner. It can be encouraged by an organization or an individual or occur in an environment not conducive to learning. Incidental learning is defined as a byproduct of some other activities and occurs constantly, although people are not always conscious of it (Marsick & Watkins, 1990).

**The Cynefin Framework:** Cynefin is a Welsh word that means “habitats.” The Cynefin Framework, created by Snowden (1999), is a conceptual framework that gives decision-makers a subdivided conceptual space in which they use to view their perception. There are four major domains in the Cynefin Framework: the Chaotic, the Complex, the Complicated, and the Obvious Domains. In this research, the Cynefin Framework was used to understand the Chinese business leaders’ perception of the crisis of COVID-19 and the Double Reduction Policy and how they adapted to the new environment with related perceptions.

**Sense-making:** Sensemaking or sense-making is the process by which people give meaning to their collective experiences. It is defined as “the ongoing retrospective development of plausible images that rationalize what people are doing” (Weick et al., 2005, p. 409).

## Chapter 2: Literature Review

*In strategy, it is important to see distant things as if they were close and to take a distanced view of close things.*  
–Miyamoto Musashi

### Overview

The purpose of this modified multicase study was to explore a group of 15 tutoring company business leaders who actively adopted different approaches to addressing the challenges brought about by the crisis of COVID-19 and the Double Reduction Policy in China. Specifically, the researcher aimed to understand how these business leaders made sense of the crisis, what strategies they had to adapt to the new environment, how they learned to think strategically while adapting to the new environment, and what other factors helped and hindered their learning to think strategically. A better understanding of Chinese business leaders' strategic thinking and their learning to think strategically will enable business leaders in China to better survive and thrive in future crises. This study addressed the following four research questions:

1. How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?
2. What strategies, if any, did the business leaders develop to adapt to the new environment?
3. In what ways, if at all, did the business leaders learn to think strategically while adapting to the new environment?
4. What other factors helped or hindered the business leaders' learning to think strategically in the crisis?

A critical review of the current literature was conducted. This review explored the interconnectedness of participants' learning experiences and the development of their strategic thinking in times of crisis. Two major areas of literature were reviewed: (a) strategic thinking and (b) adult learning/organization theory. A review of the literature on strategic thinking provided an understanding and knowledge of the definition, context, history, schools of thought, models, and the models this study adopted. A review of the literature on adult learning theories covered the context, definition, knowledge, skills, and models of informal learning, double-loop learning, and sense-making, and how these learning theories influence the effectiveness of the cultivation of strategic thinking.

The researcher used multiple information sources for this selected literature review, including professional journals, dissertations, online videos, books, and internet resources. These sources were accessed through Google Scholar, ProQuest, CLIO, Digital Dissertation, and other materials in TC Library. The following keywords were used to locate relevant articles:

- Strategic thinking
- Chinese business strategy
- Learning to think strategically
- Sense making
- Formal learning, informal learning, and incidental learning
- Crisis management

The researcher attempted to find important gaps and omissions in particular segments of literature through the literature review. Each review session closed with a synthesis of the content and relevant implications for the research. The interpretive summary that concludes this chapter illustrates how the literature informed the researcher of the interconnectedness of the

theories and how they contributed to the development of the research plan and conceptual frameworks.

### **Research and Theories on Strategic Thinking**

Strategic thinking is the critical factor that enables business leaders to learn from their current situations and draw strategic insights for a sustainable direction for the organization. As Betz (2016) argues, leadership and strategy are intricately connected, and formulating strategies is one of a leader's primary responsibilities. As leaders are the ones who have the power to implement strategic change, it is critically important that leaders consciously develop their cognitive ability to think strategically. Strategic thinking is crucial in a crisis, as disruptive changes require new insights from leaders with a strategic mindset (Olson & Simerson, 2015). As Sloan (2020) argues, strategic thinking is a fundamental cognitive ability leaders need to survive and thrive in an uncertain environment.

In this part of literature review, the researcher briefly introduces the history of strategic thinking and its development in literature. Then, the researcher discusses the definition and different strategic thinking models, especially those that shed light on this study.

#### **The History of Strategic Thinking**

The development of strategy has a long history, and it originates from winning battles in wars. Most scholars in the literature referred to Sun Tzu's (544–470 BC) *The Art of War*, written around the 5th century BC, as the earliest book on strategy. However, those who have read this book recognize it is systematic and comprehensive, which suggests the idea of strategy was developed in China earlier than Sun Tzu's time (Men, 2020). According to Honghua Men (2020), a Peking University professor, the concept of "strategy," or "Zhan Lüe" in Chinese, dates back to the Spring and Autumn Period (770–476 BC) in China, which was the beginning of Chinese

strategic thinking. Sun Tzu was active at the end of this period. The Warring States Period (475-221 BC) was the golden age of Chinese academic thought. In the Qin and Han dynasties (221 BC–220 AD), strategic thoughts gradually evolved. However, strategic development began to decline in China after the fall of the Han Dynasty.

The concepts of “Zhan” and “Lüe” were used separately in the first place, with the former meaning "battle" or "warfare" and the latter "tactics" or "scheme." The term “Zhan Lüe” first appeared in *The Commentary of Zuo* (Zuo Zhuan) in the Spring and Autumn Period (Men, 2020). Sun Tzu’s book, *The Art of War*, was written later. *The Art of War* articulated various strategies in response to war situations, from weapons and supplies to morale and discipline (Giles, 2009). However, there is more to winning wars than allocating resources and developing plans. Nevertheless, some core ideas are still relevant today and echo what we understand as strategic thinking. “It is a matter of life and death, a road to safety or ruin. Hence it is a subject of inquiry which cannot be neglected” (Sun Tzu, 500 BC/2009, p. 1).

In Western civilization, the roots of strategy were in Greece. The term “strategy” is derived indirectly from a Greek word, “strategos” or “Strategiki,” meaning generalship or “a military commander-in-chief responsible for employing the science and the art of political, economic, psychological and military forces to afford the maximum support to adopted policies in peace or war” (Xypolytos, 2022, p. 2). According to Sloan (2020), strategy in Greek philosophy was about moving between order and uncertainty and detached long-term forethought, planning, and ordering in advance of action. It is a “becoming” process used to map and steer a prudent course.

Strategy expanded its meaning as war leaders accumulated their experiences of winning and losing battles in Europe. According to Xypolytos (2022), strategy, seen as the core skill for

generals to win wars in Medieval Europe, gradually integrated more rational analysis and specific planning to make it standardized and teachable for military officers. As the concept evolved, a strategy was not just about winning wars. Many people who directed but did not fight wars, such as bureaucrats, politicians, and diplomats—got involved in the strategy formulation process, including developing tactics and making policies before and afterwards. Strategies thus became directed not only toward what to do during wars but also towards what to do before wars and afterwards.

However, strategy is not a rigid plan but a constantly changing, reciprocal, and, most importantly, non-linear process for winning wars, which was constantly emphasized by the Prussian strategist Clausewitz (1780-1831) (Rousseau, 2012). In his brilliant and philosophical book, *On Wars*, which explores the natures of war and strategy, Clausewitz (2008) highlighted the “trinity” of strategy, consisting of (1) popular passion, (2) fortune, opportunity, and risks, and (3) reason. The three elements are associated with the people, the war commander, and policy (p. 89). Clausewitz argues that war is a duel full of uncertainty and that friction occasionally hinders the smooth execution of plans. Further, his book emphasizes morality over materials or weapons in wars (Rousseau, 2012).

As the two most influential figures in the history of strategy, Sun Tzu and Clausewitz are always compared. Paquette (1991) summarizes that Sun Tzu and Clausewitz differ in their perceptions, choices of elements, and use of strategy in their works:

1. Clausewitz perceived strategy as a short-term tactic, while Sun Tzu perceived it as a prolonged strategic process. Clausewitz held that strategy is developed in the blink of an eye, while Sun Tzu treated strategy as a complex and subtle system developed over a much longer time.



2. Clausewitz focused on winning a battle using limited but accumulated forces, whereas Sun Tzu focused on avoiding direct encounters with the enemy. In addition, Clausewitz treated wars as a regular occurrence, while Sun Tzu saw wars as catastrophic and unwinnable, as he was importantly sensitive to the human cost of wars.

3. Surprise was regarded as a hindering factor by Clausewitz but as a tool by Sun Tzu. Sun Tzu favored deception and emphasized the role of surprise, intelligence, and spies. On the other hand, Clausewitz drew attention to well-wrought plans and explained why frictions unraveled war plans.

4. Clausewitz's *On War* has the characteristics of linearity, singularity, discreteness, homogeneity, and brevity through application of dialectical and rational methods. For Sun Tzu, time is an epochal and cyclical concept, within which it is unreliable to evaluate a situation in one moment and devise a strategy the next.

The philosophical thoughts and discussion behind Clausewitz's and Sun Tzu's articulation of strategy are still relevant and pervasive today. In diplomacy, national security, business, management, and even crisis management during the Pandemic, formulating and implementing effective strategy is still one of the fundamental approaches to reaching a desired and sustainable future. In sum, the history of strategic thinking and the differences between Clausewitz's and Sun Tzu's philosophies of strategy brought a broader view to the development of the researcher's understanding of strategic thinking.

### **Strategic Thinking vs. Strategic Planning**

The discussion of strategic thinking vs planning is a milestone in the modern history of the development of strategic thinking. According to Mintzberg (1994), the term "strategic planning" was coined in the mid-1960s and was well-received by business leaders for

formulating and implementing strategies. It was regarded as “the one best way” (p.107), as it provided leaders and managers with step-by-step instructions to formulate effective strategies. However, Mintzberg pointed out the pitfalls of strategic planning and articulated why strategic planning would fail, which initiated a long-term discussion about the differences between strategic planning and strategic thinking.

According to Mintzberg (1994), strategic planning cannot be considered as strategic thinking because of its linear and calculating nature. Instead, it is an analytic process aimed at programming already identified strategies with the plan as an outcome, which corporate managers popularly embraced as an effective way to devise and implement strategies to enhance each business unit's competitiveness. As articulated by Mintzberg (1994), strategic planning includes three fallacies:

- 1) The future is predictable.
- 2) Strategic planning can be formulated without fully understanding and participating in the whole process—including strategic thinking.
- 3) Strategy-making can be formalized in a rational process.

Due to the development of science and technology, people have come to believe they can solve problems through an instrumental and rigorous instrumental process employing scientific theories and techniques. In this construct, attention is focused on standardized knowledge and processes (Schön, 2017). However, the reality of any organization is non-linear, complex, ultimately unpredictable, and requires both quantitative analysis and qualitative understanding. In his research, Mintzberg (1994) finds that strategic planning, as a rigid planning process, failed companies' attempts to catch up with the changes in markets, and further, that too much planning was chaotic and confusing for managers at different levels. Consequently, he suggests shifting

from strategic planning to strategic thinking. Mintzberg defines strategic thinking as a synthesizing process:

Strategic thinking is about synthesis. It involves intuition and creativity. The outcome of strategic thinking is an integrated perspective of the enterprise, a not-too-precisely articulated vision of direction. Such strategies often cannot be developed on schedule and immaculately conceived. (p. 3)

There are different definitions of strategic thinking by various scholars, making it difficult to reach an agreed definition. However, certain similarities are shared among different definitions: creativity, new insights and perspectives, and a continuously evolving process resulting from learning and understanding. Bonn (2005) defines strategic thinking as a process of solving strategic problems that combines a rational and convergent approach with creative and divergent thoughts. This process emphasizes how senior leaders in an organization try to understand a highly complex, ambiguous, and competitive environment, draw strategic insights, and take strategic actions following the insights. In Bonn's model, strategic thinking is concerned with thinking in a novel way to compete in an ambiguous and competitive environment, and it emerges over time rather than being planned.

Seeing strategic thinking from the perspective of the science of quantum physics and complexity theory, Stacey (1992) asserts that strategic thinking designs new actions based on new learning rather than on pre-programmed calculation of what is likely to happen, and that it uses analogies and qualitative similarities to generate new insights and creative ideas. Similarly, Liedtka (1998) emphasizes that strategic thinking is a learning and developmental process, not a set of skills and knowledge: "[The] strategic thinker is a learner, not a knower" (p. 124).

Though the debate about strategic thinking vs. strategic planning is ongoing, scholars in recent years tend to think that strategic thinking and strategic planning are complementary. Sloan (2020) describes the relationship between strategic thinking and strategic planning as "the two

sides of a coin” (p. 24). Dionisio (2017) argues that as a rational analysis process, strategic planning should occur after strategic thinking in a way that encourages strategic thinking and does not discourage it. Both strategic thinking and strategic planning are parts of the strategic management process with different roles. Strategic thinking focuses on seeking innovative ideas and new strategies to achieve a better future, while strategic planning supports and realizes strategies generated through strategic thinking and ensures the execution of strategies in business (Ken et al., 2012). Pietersen (2010) also regards analysis and synthesis as two complementary capabilities of strategic thinking, though he favors synthesis over analysis. He uses a metaphor to illustrate the importance of the integration of analysis and synthesis: “If information is like gold ore, the ounce of pure gold is the result of analysis, understanding, and synthesis” (p. 67).

### **The Cultivation of Strategic Thinking**

Though strategic thinking has been considered one of the most critical leadership traits for leaders, there is a gap in developing the practice of strategic thinking (Bonn, 2005; Githens, 2019; Sloan, 2020). Bonn (2005) notes that strategic thinking was identified by experts as one of the ten most critical areas for future management research. Yet, despite the great need for cultivating strategic thinking among leaders in organizations at different levels, there is a lack of empirical research into what organizations need to do to improve leaders’, managers’, and employees’ ability to think strategically (Goldman et al., 2015). One of the most important reasons for the shortage is the lack of the wide spread recognition of the the non-linear nature of strategic thinking. In the literature, the learning models for strategic thinking are often rational, linear, and instructional while, in reality, the formation of strategic thinking is non-linear, hard to detect, and occurs within informal and incidental learning (Sloan, 2020).

It is a debatable question as to whether strategic thinking can be taught and developed through deliberate learning. There is no simple answer to this question. Drawing on a variety of research, Ken et al. (2012) hold that strategic learning is a learnable skill benefiting from diverse experiences and open dialogues, requiring persistent practice to develop and continuous repetition and application of active strategic thinking in life. Other researchers also found that strategic thinking is not innate but arises from specific experiences (personal, interpersonal, organizational, and external) that occur over ten or more years (Ericsson et al., 2007; Goldman, 2012). Therefore, there is a consensus that strategic thinking is an acquirable ability, which can be cultivated through learning practices (Goldman, 2006).

If strategic thinking is an acquirable skill, how do leaders in other countries learn to become strategic thinkers? Researchers have conducted investigations and interviews to see reoccurring patterns internationally in the cultivation of strategic thinking. For example, Liedtka (1998) argues that organizations need to provide supporting contexts and strategic conversations to support individuals to cultivate strategic thinking capability, which includes five elements (Table 2.1).

**Table 2.1**

*The Five Elements of Strategic Thinking (Liedtka, 1998)*

Element	Explanation
System perspective	A mental model of the complete end-to-end system of value creation and understanding of the inter-dependencies between the internal and external world
Intent-focused	A mindset focused on a long-term market or competitive position that a firm hopes to build over the years
Intelligent opportunism	An intention to discover what, why, and how to achieve based on new experiences and new insight, rather than on predicted outcomes or prior experience
Thinking in time	An ability to connect the dots between the past, the present and the future
Hypothesis driven	An ability to develop reasonable hypotheses and to test them efficiently in an ever-changing and competitive environment

Sloan (2020) argues that strategic thinking is a highly complex synthesis of the affective and cognitive learning domains that requires extensive use of a deeper-dive level of learning and a high degree of reflective capacity. With that understanding, she summarizes five personal attributes critical to strategic thinking (Table 2.2), which can be cultivated through deliberate learning.

**Table 2.2**

*The Five Attributes of Strategic Thinking (Sloan, 2020)*

Attribute	Explanation
Having an imagination	Imagination and creativity play a key role in helping managers see beyond their daily routine and practice and develop innovative solutions to specific problems in particular situations.
A broad perspective	Broad perspectives from interaction and insights help thinkers challenge their own frameworks and see beyond.
Juggling between tasks and challenges.	An ability to see and to work with opposing relations and paradoxes, tasks, and unexpected pressure from all sources.
No control over	An awareness of spending more time preparing for the unknown to survive the unexpected threat or disasters when they come.
A strong desire to win	Having an intense desire to win allow managers to gravitate toward a highly competitive environment and make good strategies to win

One possible limit in Sloan’s five attributes of strategic thinking is a lack of systematic connection between the attributes. They each seem essential but may not co-create a strong and particular model that propels strategic thinking. For example, “a broad perspective” and “juggling between different tasks and challenges” are not unique characteristics of strategic thinking and can apply to management learning in general (Casey & Goldman, 2010). Another possible limit of her five personal attributes was that all the interviewees in her research were CEOs or top managers of the companies, who might fail to consider the problematic situations from the perspectives of mid-level managers or other employees.

Goldman et al. (2015) studied practices organizations adopted to improve leaders', managers', and other employees' strategic thinking through an interpretative study across large organizations. The research sample included 26 HR/HRD leaders who had worked in their company for at least one year with at least 250 employees in the division or department under them. The researchers found that (1) strategic thinking was considered an elite activity; (2) the approaches to developing strategic thinking were leveraged without systemization; (3) experiential learning is favored in the development program of strategic thinking; and (4) evaluation was lacking in the development program of strategic thinking at all levels. The findings of this research also invoke Sloan's (2020) five personal attributes of strategic thinking. Interviewees in this research considered strategic thinking as the responsibility of the leaders and that the training program lacked systemization. The interviewees listed direct and indirect approaches as cohort program/course, mentoring, coaching, job rotation, self-directed course, special program/stretch assignments, and participation in strategic planning.

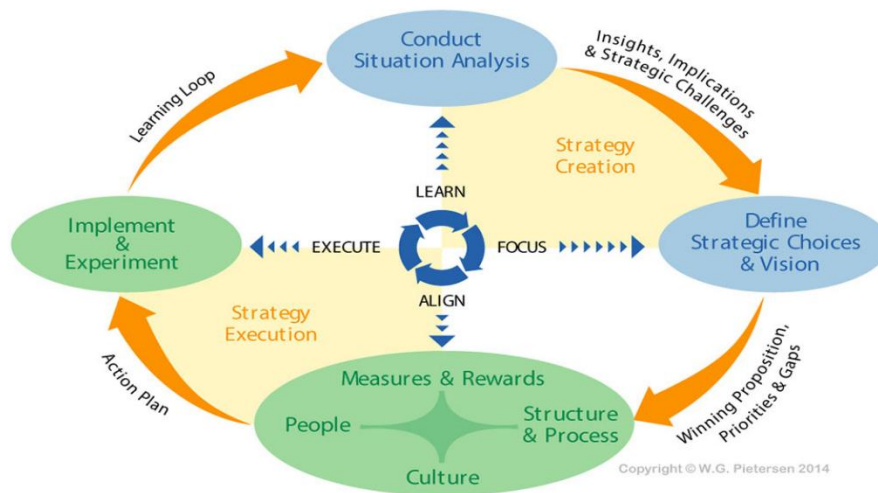
Some scholars have developed systemic models to cultivate learners' strategic thinking capabilities (Kazmi & Naaranoja, 2015; Pietersen, 2010, 2015). Pietersen's (2015) strategic learning cycle is a systematic model that organizations have widely used to improve their strategic thinking capability. In his model, Pietersen believes that leaders need to cultivate the ability to establish a winning strategy, focus on the right priorities, and implement an effective process for achieving success. Pietersen (2010) proposes that we learn from Nature because Nature is an expert at creating favorable variations to adapt to new environments. Successful adaptations are not accomplished overnight but "through a massive and ceaseless set of experiments—mutations that test a wide range of survival strategies" (p. 25). Similar to Mintzberg, Pietersen (2010) proposes that leaders shift from "strategy as planning" to "strategy



as learning” to become strategic learners and adaptive leaders. He integrates “five killer competencies” (p. 26) —learning, focusing, aligning, executing, and renewing—in a dynamic and deliberate strategic learning cycle that can empower learners to generate winning strategies. The five competencies make up the following cycle (Figure 2.1).

**Figure 2.1**

*The Strategic Learning Cycle (Pietersen, 2010)*



There are four linked action steps—learn, focus, align, and execute—that build on one another. The first step is to learn about the situation and get insights for the second step, which is to focus on an organization's critical areas or priorities. The first two steps set the foundation of strategy creation. The third and fourth steps focus on aligning and implementing the strategy. The cycle is then renewed continuously—the fifth step—to embody the five competencies for competitive advantage.

To sum up, different theorists (Bonn, 2005; Ken et al., 2012; Sloan, 2020) believe that strategic thinking is an acquirable skill from various concrete and contextual experiences, which echoes Mintzberg’s (1994) learning school of strategy. Different models of strategic thinking

(Kazmi & Naaranoja, 2015; Liedtka, 1998; Pietersen, 2010; Sloan, 2020) can be used to understand Chinese tutoring company leaders' learning to think strategically in the face of COVID-19 and the Double Reduction Policy. Furthermore, these models help discover how Chinese leaders' learning to think strategically differs from that of business leaders in the West.

### **Chinese Ways of Strategic Thinking**

China and South Asian countries have been developing rapidly in recent years, and the world has gained more interest in the Chinese and South Asian ways of strategic thinking. However, due to the influence of culture, history, language, and social development, specific differences exist between Western and Chinese ways of strategic thinking. For example, time is regarded differently in China than it is in the West: "Time and space are integrated; time is cyclical; it is made up of discrete units—these units are large; time is heterogeneous discontinuous" (Paquette, 1991, p. 45). As a result, Chinese people pay more attention to long-term strategies than they do to the short-term gains.

Henry Kissinger (2013) emphasized that Chinese strategy was guided by the Chinese game of Wei Qi, also known as Go, not by Western chess. In Western chess, game pieces have different values and directional movement capabilities, and the overarching emphasis is on playing in a way that will most quickly capture the king. In Wei Qi, every game piece is of equal importance, and the goal is to slowly and patiently build up assets to tip the balance of the game finally in one's favor. The victory may be uncertain until the last move, and the difference between winning and losing may be just "half of a zi," a Wei Qi term meaning a slight advantage.

The differences between phonetic and ideographical writing also mediate different ways of thinking between Westerners and Chinese people. The phonetic writing developed around 1000 B.C.E. in ancient Greece lost pictorial ties with reality and focused more on logic and

concreteness (Jullien, 2000). Logical models and frameworks have been developed to elicit effective management in the West. In China, ideographical characters help promote Chinese people's habit of envisioning images and metaphors in their thinking and communication. As a result, metaphors and images are used daily in Chinese business management, negotiation, and communication (Yang, 2015).

Confucianism, Taoism, and Buddhism all play a role in forming Chinese people's ways of thinking. Originating with the philosopher-teacher, Confucius (551–479 BCE), Confucianism emphasizes morality and the practice of self-cultivation toward being a virtuous person. At its core, it is humanistic and non-theistic.

Taoism emphasizes three critical values of compassion, moderation, and humility as manifested in nature and the relationship between humanity and the cosmos (Shrivastava & Persson, 2014). The concept of Yin and Yang is critical in Taoism. It is more than the balance of life and the ever-changing nature of the universe; it also emphasizes qualities of harmony, naturalness, vitality, peace, “non-action,” emptiness, flexibility, spontaneity, and the relativism of human ways of life (Eliade, 1984, p. 35).

Originating within Taoism, water is one of the most commonly used metaphors to describe the wisdom of living in a changing world. Water represents the willingness and ability to adapt to any difficult situation. Facing contradictions and conflicts, the person with the wisdom of water seeks maximum potential by being flexible and inclusive (Shrivastava & Persson, 2014). Water “is used as a symbol of the most penetrating and unstoppable force” (Jullien, 1999, p. 33). With its flexibility and weakness, water is “stronger than strength” (p. 171).

## **Research and Theory on Adult/Organizational Learning**

### **Informal Learning**

Informal learning plays a critical role in the formation of strategic thinking. Sloan (2020) discovered that successful strategists give more credit to informal learning than formal learning as the key to their own learning to think strategically. Mintzberg (1994) also describes learning to think strategically as a “messy process of informal learning” (p. 108). With the advent of the Pandemic and the Double Reduction Policy, the regulatory environment is no longer familiar to Chinese business leaders in tutoring companies. They had to learn about the new environment and develop new capabilities and insights to deal with the crisis. They had no prescriptive solutions because the Pandemic and the Double Reduction Policy were unprecedented. As a consequence, they could not attend formal schools or courses to seek solutions; informal learning became a survival tool for these business leaders. As Watkins and Marsick (2021) have proposed, we need to “learn our way out of novel circumstances” (p. 89) through informal and incidental learning in the face of unpredictability, uncertainty, and disruption in routines.

In this research project, one of the researcher’s goals was to find the specific learning practices, whether formal or informal, that helped Chinese business leaders cultivate their strategic thinking in a time of crisis. Another goal was to explore how business leaders informally or incidentally learned to think strategically.

The definitions of informal and incidental learning reveal a subtle differentiation and, importantly, the foundational linkage between informal learning and strategic thinking (Sloan, 2020). The definition of informal learning is always contrasted with that of formal learning. Formal learning refers to structured learning activities in terms of time, space, goals, and support. It is undertaken intentionally to develop knowledge and competencies (Eraut, 2004). By

contrast, , informal learning can be defined as any activity involving learning for understanding, knowledge, or skill that occurs outside the curricula of educational institutions and related programs (Livingstone, 1999). Eraut (2004) posits that the majority of learning in the workplace is informal learning, including learning from others and our personal experiences. Marsick and Watkins (1990/2015) state that informal learning is not typically classroom-based or highly structured. It can be encouraged by an organization or an individual, and it can occur in an environment not highly conducive to learning. Incidental learning is defined as a byproduct of some other activities and occurs all the time, although people are only sometimes conscious of it. Drawing on Marsick and Watkins’ (1990/2015) work, Sloan (2020) modified the characteristics of the two types of informal learning, intentional and incidental learning, with examples (Table 2.3).

**Table 2.3**

*The Characteristics of Intentional and Incidental Learning with Examples*

	Types of Informal Learning	
	Intentional	Incidental
Characteristics	Experiential Noninstitutional Controlled by learner somewhat planned, but may not be a primary aim Expect learning outcomes, but they may differ from those expected Nonclassroom site Fair predictability of outcomes	Experiential Not planned Not intentional By-product of other activities Unclear, unpredictable outcomes

**Table 2.3** (continued)

Examples	Self-directed learning Coaching Networking Personal study Mentoring Distance learning Feedback Performance planning Experimentation Research Trial and Error	Involvement Mistakes Assumptions Beliefs, values Attributions Hidden curricula in formal learning
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Using two main categories, intentionality, and consciousness, Schugurensky (2000) identifies informal learning as having three forms: self-directed learning, incidental learning, and socialization (Table 2.4). Socialization refers to the internalization of values, attitudes, behaviors, skills, etc. that occurs during everyday life, which can also be called tacit learning (Schugurensky, 2000). In that context, learners do not have a prior intention and are unaware of the learning when it takes place, but they may become aware of it through a process of “retrospective recognition” (p. 5). For example, when someone is exposed to a foreign environment, he or she may be aware of the values or beliefs acquired in their homeland.

**Table 2.4**

*Three Forms of Informal Learning (Schugurensky, 2000)*

Form of Informal Learning	Intentionality	Awareness
Self-directed learning	Yes	Yes
Incidental learning	No	Yes
Socialization	No	No

The broad definition of informal learning sheds light on decoding the types of learning Chinese business leaders excised, especially “implicit, unintended, opportunistic and unstructured learning” (Eraut, 2004, p. 250). However, their real challenge was understanding how to facilitate informal learning for strategic thinking development. As Beckett and Hager (2002) argue, informal learning requires a blending of individual different constructs, such as intellectual curiosity, self-directedness, and self-efficacy, so one major objective was to explore the relationship between different types of informal learning and strategic thinking development.

### **Informal Learning and Strategic Thinking**

Informal learning plays a critical role in the development of strategic thinking. In Mintzberg’s (1994) emergent school of strategy, he asserts that good strategies are made through messy informal learning processes by people at various levels who deeply understand the issues. This view echoes Marsick and Watkins’ (2001) idea that informal learning is “triggered by an internal or external jolt and is influenced by chance” (p. 28). In Sloan’s (2020) research, she discovered that much of the learning involved in enhancing business leaders’ development of strategic thinking is informal, incidental, or intentional.

Strategic thinking can be significantly enhanced by improved awareness and practice of intentional and incidental learning (Sloan, 2020). With enhanced awareness of intentional and incidental learning, we may be more sensitive to the surrounding environment and ongoing activities and conduct deliberate reflections on various learning experiences. Mintzberg (1994) suggests that we do not just think to act; we also act to think. In their article about improving the awareness of informal learning, Marsick and Volpe (1999) suggest that learners scan their environment, heighten their awareness around learning, pay attention to goals and turning points,

develop reflection skills, and form a culture of collaboration and trust. These practices can also improve strategic thinking through informal learning activities.

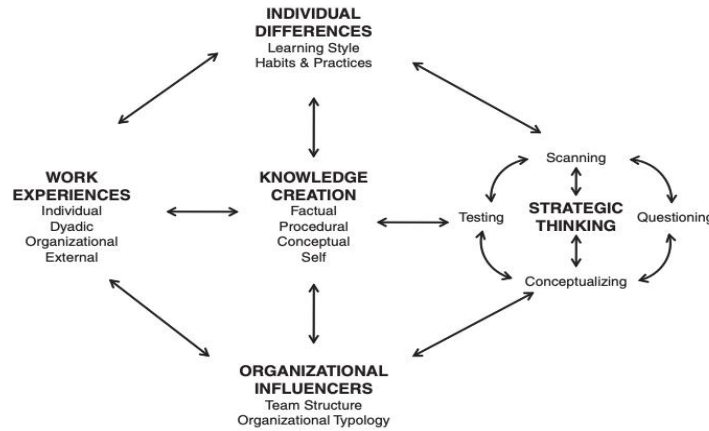
However, informal learning alone may not be sufficient to enhance strategic thinking capability. Formal learning programs (e.g., MBA, training, etc.) can bring benefit to the cultivation of strategic thinking. For one thing, there can be synergy between informal learning and formal learning (Marsick et al., 2006). Students' learning in formal programs will generate new lenses and perspectives in their daily work. For another thing, there is much informal learning in a formal learning program. Besides, strategic thinkers can benefit from participating in deliberate management learning, organized planning processes, and written plan development (Casey & Goldman, 2010; Ericsson et al., 2007; Mintzberg, 1994). Meanwhile, to become an expert in strategic thinking, a lengthy span of 10 or more years of experience should have taken place (Ericsson et al., 2007).

Inspired by different theorists in strategic thinking, informal learning, experiential learning, and cognitive science, Casey and Goldman (2010) developed their model of learning to think strategically (Figure 2.2). In this model, the two theorists not only consider the strategic thinking process but also emphasize the importance of informal learning, work experience, individual differences, and the influence of organizational contexts and factors on the development of strategic thinking. The core of this model is the process of generating four types of knowledge: factual, procedural, conceptual, and self.



**Figure 2.2**

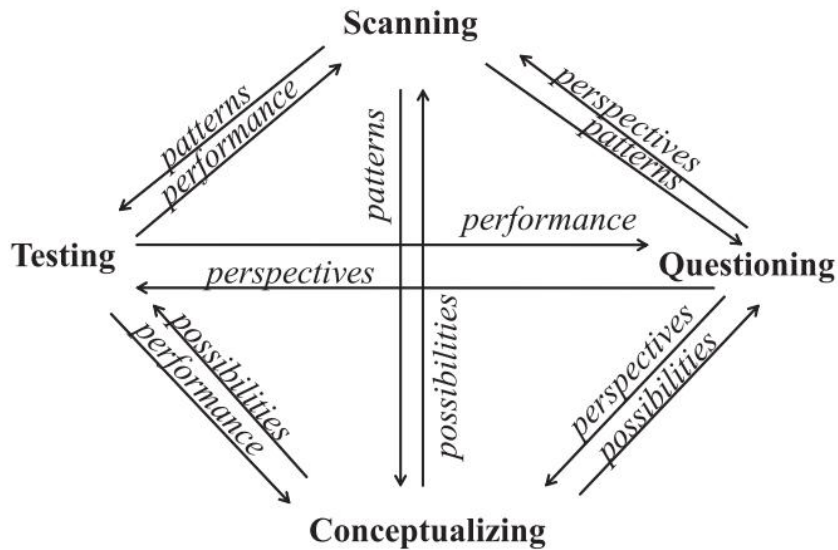
*Model of Learning to Think Strategically (Casey & Goldman, 2010)*



Within this systematic model, the model of strategic thinking in action is a crucial part (Figure 2.3). The model of strategic thinking in action is one of non-linear and continuous learning. Four activities represent what people do when they are thinking strategically: scanning, questioning, conceptualizing, and testing. Scanning identifies patterns in actions. Questioning is used to understand different vantage points and develop different perspectives on issues (Mintzberg, 1995). Scanning and questioning lead to divergent thinking, which brings new insights (Pietersen, 2010). Conceptualizing is inspired by Kolb's (2014) Experiential Learning Cycle. It aims at locating a few priorities (Pietersen, 2010) and predicting possibilities for the future (Liedtka, 1998) with insights, experience, and information from different levels of the organization. Finally, testing is to test the impact of the strategy and consider what needs to change to align the organization for successful implementation (Pietersen, 2010).

**Figure 2.3**

*Model of Strategic Thinking in Action (Casey & Goldman, 2010)*



Casey and Goldman's (2010) model of learning to think strategically is systematic and hypothesis-driven (Liedtka, 1998). It considers different adult learning theories—Informal Learning, Learning from Experience, and Situated Learning—logically and comprehensively. It also regards the development of strategic thinking as an ongoing process of expertise development (Ericsson et al., 2007). However, the core of this model is the creation of knowledge instead of a non-linear and creative learning and thinking process (Mintzberg, 1998; Sloan, 2020) or the ability to generate insights and align strategies with organizational practices (Pietersen, 2010). Another limitation may be the complexity of the model itself. For practitioners who do not have an adult learning background, the model cannot likely be well understood. Pietersen (2010) argues that strategic thinkers can draw simplicity from complex situations.

### **Sense-making and the Cynefin Framework**

Sense-making is another learning theory in this research project. Sense-making was introduced in the late 1960s, but no one knows who was the first to use it (Dervin & Naumer,

2009). Karl Weick (1995), an organization theorist, defines sense-making from a psychological perspective and argues that it is about the placement of items into frameworks, comprehending, constructing meaning, and interacting in pursuit of mutual understanding patterning. He explains the seven characteristics of the theory, its outcomes, and possible failures (Table 2.5).

**Table 2.5**

*The Seven Characteristics of Weick's (1995) Sense-making*

Characteristics	Explanation
1. Sense-making is grounded in identity construction.	Establishing and maintaining identity is at the core of sense-making.
2. Sense-making is retrospective.	People can only have an understanding of a specific event or thought after they have experienced it.
3. Sense-making is enactive of sensible environments.	People create their socially constructed worlds, a process that is constrained by their actions and thinking.
4. sense-making is social.	People share their meaning in a collective manner, influenced by the community or organization members.
5. Sense-making is an ongoing process.	Sense-making is characterized by a dynamic process of meaning flow, it never stops and people need to freeze one moment out of the flow to make meanings.
6. Sense-making is focused on and accomplished by extracted cues.	People make sense of anything at any given time. Therefore, we need to focus on a specific moment and pay attention to the ways we notice, extract cues, and interpret them.
7. Sense-making as being driven by plausibility rather than accuracy.	Instead of extracting the “objective reality” of a certain moment, people try to capture a particular point of reference or extracted cue, interpreted within their knowledge frame.

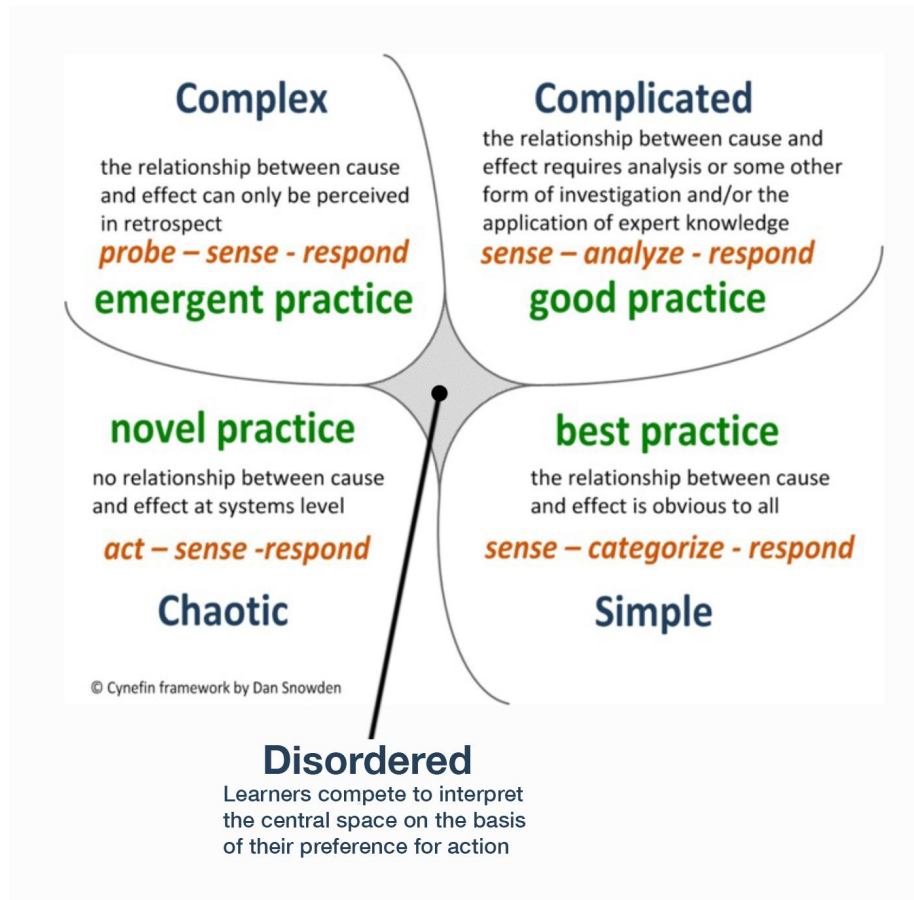
The definition and characteristics of Weick's (1995) sense-making inspire possible directions the researcher would follow to make sense of leaders' learning to think strategically. For example, when different leaders have a similar learning experience, like mentoring within an organization or external coaching, how do they make sense of these types of learning? The Critical Incident Technique can help leaders freeze important moments of their life and further explore and interpret them or extract cues in depth.

According to Dervin and Naumer (2009), sense-making is an internal and external behavior allowing individuals to construct their movement through the time-space dimension. They characterize sense-making as a personal and subjective process restrained by time, space, and personal limitations. Therefore, one's sense-making is always gappy, incomplete, and requires more perspectives and diversities.

Another organizational scholar who studied sense-making is David Snowden (2005). In his multi-ontological model, Snowden explains sense-making as the process whereby individuals choose between multiple possible explanations of different inputs, which enable them to determine or respond to what is around them. He argues that humans need to achieve enough diversity in their interpretations of the world and their actions in it in order to gain an advantage to move forward. Kurtz and Snowden (2003) introduce a sense-making framework called Cynefin, which in Welsh means "habitat" as a noun and "being familiar" as an adjective. Divided into four major domains (Figure 2.4), Cynefin is meant to help people make sense of a wide range of different situations and form strategic insights and ways of thinking to deal with challenges. The four major domains are the Simple/Obvious Domain, the Complicated Domain, the Complex Domain, the Chaotic domain. There is also an auxiliary domain in the middle called the Disordered Domain. Table 2.6 describes each domain of the Cynefin Framework.

**Figure 2.4**

*The Cynefin Framework (Adapted from Kurtz & Snowden, 2003)*



**Table 2.6***The Five Domains of the Cynefin Framework*

Domain	Explanation
The Obvious/Simple Domain	There are clear cause-and-effect relationships and patterns that can be predicted and created. People agree on objectivity and the focus is on categorizing data, operational procedures, and work efficiency.
The Complicated Domain	While there are separate stable causes and effects relationships, it takes time to fully discover and understand the patterns. Learners need not just expert opinions but also experiments, fact examination, system thinking, and adaptive enterprise to move from the knowable to the known domain.
The Complex Domain	There are cause-and-effect relationships between the agents, but both the number of agents and the number of relationships defy categorization or analytic techniques. Emergent patterns can be perceived but not predicted, and expert opinions may not sufficiently prepare learners for the situation. Probing for more perspective is a must.
The Chaotic Domain	There are no perceivable relationships. Best practices from the past fail. There is no data to analyze and waiting for the emergent patterns is a waste of time. Learners need a new way of thinking, need to act quickly and decisively to reduce the turbulence, and then sense the reaction and take action accordingly.
The Disordered Domain	Learners agree on the other domains based on their understanding and categorization, but they don't agree on the central domain, the boundaries of human understanding and knowledge. Therefore learners compete to interpret the central space on the basis of their preference for action.

The Cynefin Framework offered a powerful tool for the researcher to make sense of Chinese business leaders' learning to think strategically. The Chinese educational industry was

experiencing a transition period after COVID-19, to which was added a harsh national educational policy that restricts the development of the K-12 subject training industry. The researcher was curious about what learning these leaders had when they were in different domains using the Cynefin model. The Pandemic and the harsh educational policy created complex and chaotic situations, and the researcher was interested in how the business leaders made sense of these situations and responded to the crisis.

The Cynefin Framework could be used in different ways, and one of them was to explore the connections between different boundaries, which would take effort and take time to find possible approaches to move from the un-ordered (the complex and the chaotic) domains to the ordered (the known and the knowable) domains. As Kurtz and Snowden (2003) put it, “Boundaries are possibly the most important elements in sense-making because they represent differences among or transitions between the patterns we create in the world that we perceive” (p. 474). The implication was to create a safe space where leaders of tutoring companies could talk about their learning and insights in complex and chaotic situations. The researcher’s interviews focused on how the leaders gained new insights on a contentious issue, planned interventions to move a situation from one domain to another, managed different formal and informal communities, and differentiated their strategies for knowledge retention based on multiple contexts of knowledge exchange.

Kurtz and Snowden (2003) recommend using different methods to gain diversity and perspective in the complex or the chaos domain, including “narrative database,” “alternative history,” and “convergence methods” (p. 471). Inspired by such methods, the researcher probed for strategies Chinese leaders adopt in similar situations to gain diversity.

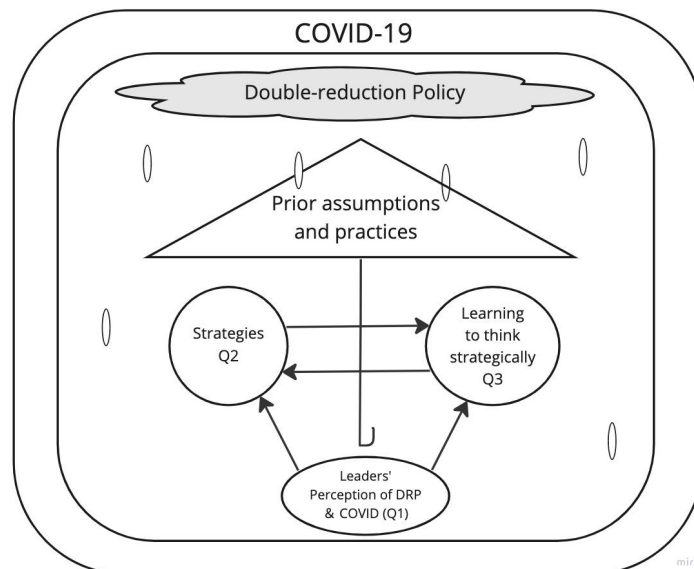
In his comprehensive literature review article, Golob (2018) summarizes that there are two ontological perspectives on sense-making: social cognitive and situational constructivist. The former is a collective way of interpreting the world in which learners make sense of the world under the influence of other community or organization members. The latter is a particular way of interpreting, believing that reality is not objective but rather socially constructed. Although the situational constructivist perspective has been more emphasized in recent decades (Golob, 2018), use of the two perspectives enabled the researcher to study the factors influencing Chinese business leaders' learning. For example, what learning is influenced by collective beliefs, values, assumptions, etc., among these leaders? Furthermore, how do individual leaders vary their sense-making ways from one to another?

### Conceptual Framework

The following framework (Figure 2.5) is the researcher's conceptual framework for this research project. A description about this conceptual framework is given below.

**Figure 2.5**

*The Researcher's Conceptual Framework*





In the conceptual framework, COVID-19 is the backdrop of the crisis. Both COVID-19 and the Double Reduction Policy comprised the crisis the business leaders in the tutoring industry were facing, but it was the DRP that exerted a direct and devastating impact on the leaders. In this conceptual framework, the DRP is the image of the dark cloud. In Chinese culture, a dark cloud is a symbol of danger or risks. The raindrops symbolize the negative impact of DRP, and they even penetrate the umbrella of prior assumptions and practices. Now people holding the umbrella are actively experimenting with their strategies and learning to think strategically. The two factors are mutually affecting each other. Another factor that influences their strategies and learning practice is their perception of the crisis of COVID-19 and the Double Reduction Policy. The three factors align with the research questions. However, the fourth research question about other hindering or helping factors is not placed as a key factor in this conceptual framework. Moreover, as this conceptual framework is inspired by the Cynefin Framework, this conceptual framework will shed light on how business leaders adjust their strategies and learning to think strategically under leaders' different perceptions of the crisis. Using the same symbols of dark cloud and umbrella, the researcher will visualize the business leaders' strategies and learning processes in the four different domains of the Cynefin Framework.

### **Summary**

In this chapter, the researcher began with the purpose of this research project and conducted a literature review that shed light on the research questions and conceptual framework. This literature review explored the interconnectedness of participants' learning experiences and the development of their strategic thinking in times of crisis. A critical review of strategic thinking and informal learning was conducted. In the review of strategic thinking, the researcher briefly reviewed strategic thinking in ancient China and Greece and compared two critical

figures, Sun Tzu and Clausewitz, and their philosophical thoughts on strategic thinking. The review continued with a comparison between strategic thinking and strategic planning, initiated by Mintzberg (1994), who argues that strategic planning is not strategic due to its linear and analytic process and that strategic thinking is a learning process involving synthesis, intuition, and creativity. Different theorists (Heracleous, 1998; Liedtka, 1998; Sloan, 2020) joined the discussion about strategic planning and strategic thinking, which further developed strategic thinking in academia. Strategic thinking was defined from more perspectives, and scholars gradually saw strategic planning and strategic thinking as two complementary parts, “two sides of a coin” (Sloan, 2020). The researcher then explained three critical strategic thinking models that directly impacted the current study’s conceptual framework and gave a brief review of what they were. The three models were Liedtka’s (1998) Five Elements of Strategic Thinking, Sloan’s (2020) Five Attributes of Strategic Thinking, and Pietersen’s (2010) Strategic Learning Cycle.

In the review of adult learning theory, the researcher critically reviewed the definition, characteristics, and types of informal learning and its relationship to strategic thinking. As Sloan (2020) discovered in her research, much of the learning involved in enhancing business leaders’ development of strategic thinking is informal, incidental, or intentional in nature. Strategic thinking can be significantly strengthened by enhanced awareness and practice of intentional and incidental learning (Sloan, 2020). As Marsick and Vopale (1999) put it, learners scan their environment, heighten their awareness around learning, pay attention to goals and turning points, develop reflection skills, and form a culture of collaboration and trust to improve their learning effectiveness and work performance. Following Marsick and Volpe’s advice of increasing awareness and deliberate practices of informal learning, business leaders in Chinese tutoring companies can enhance their strategic thinking while dealing with different challenges. At the

end of the review of informal learning, Casey and Goldman's (2010) systemic model sheds light on integrating informal learning, experiential learning, individual differences, and organizational context.

In the last part of the literature review, the researcher briefly introduced the history of sense-making and a sense-making framework, the Cynefin Framework by Kurtz and Snowden (2003), and described five domains of the framework. The Cynefin Framework provided a lens through which to see how business leaders in Chinese tutoring companies identify and understand the crisis in the four domains—chaotic, complex, complicated, and obvious—and how they learned to think strategically in each domain.

With the knowledge and insights from the two major domains of literature review, the researcher proposed a conceptual framework of learning to think strategically that combined the three research questions using the image of an umbrella. In the next chapter, Methodology, the researcher explains how he conducted his research through different research methods in light of the conceptual framework.

## Chapter 3: Methodology

*There is nothing so practical as a good theory.*

— Kurt Lewin (1890-1947)

### Overview

This research aimed to explore, through qualitative case studies, how leaders in the Chinese tutoring industry developed strategies to tackle the crisis of the Pandemic and the Double Reduction Policy and learned to think strategically in a time of crisis. The researcher used a multiple-case study to collect data to answer the research questions regarding how they made sense of the crisis, what strategies they formulated to deal with it, and how they learned to think strategically in this process. The four research questions were:

1. How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?
2. What strategies, if any, did the business leaders develop to deal with the crisis?
3. In what ways, if at all, did the business leaders learn to think strategically while adapting to the new environment?
4. What other factors helped or hindered the business leaders' learning to think strategically in the crisis?

Qualitative research was appropriate for this research project because qualitative research design is a flexible and inductive process rather than following a strict sequence or one that is derived (Maxwell, 2012). Qualitative research would leave more space for the researcher to

make changes and adjustments as the he acquired more knowledge and insights into the interconnection among different research components.

Since the researcher interviewed participants from different tutoring companies about their strategic thinking and learning processes to combat the crisis, he used multiple case studies as the primary methodological approach. Creswell (2014) defines case study research as follows:

Case study research is defined as a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bound systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case themes. The unit of analysis in the case study might be multiple cases (a multisite study) or a single case (a within-site case study). (p. 17)

Case studies can be categorized into three types: (1) exploratory case studies where exploration of the phenomena is core to the research and needs to be discovered; (2) descriptive case studies that lead to the development of a narrative of the phenomena with reference to related literature; and (3) explanatory case studies that ask the “why” questions about the observed phenomena which may lead to the establishment of theories (Zainal, 2007). This research project was an exploratory case study in which the researcher explored how business leaders made sense of the ongoing crisis of the Pandemic and the Double Reduction Policy in education and how they learned to think strategically in response to the crisis. By having interviews with the business leaders about their learning processes, the researcher tried to find the links between their perceptions of the crisis, their learning strategies, and their learning processes to think strategically in a time of crisis. However, though this research explored the “what” and “how” questions, the researcher relied mainly on interviews data and views of the leaders, so it is more accurate to call this research a modified exploratory case study.

Case study research is also suitable for research projects that focus on learning processes (Merriam, 1998). In this research project, “what” and “how” were the key focuses, but many

factors may affect the “what” and the “how” of a learning process. Case studies provide the ability to describe these factors and interact with different factors in natural contexts (Kyburz-Graber, 2004). Using case studies, the researcher explored the key learning components and categories when dealing with a crisis, the relationship between their sense-making and their learning strategies, and the processes by which they learned to think strategically in the crisis. Case studies also allow researchers to take advantage of a full range of evidence, including documents, artifacts, interviews, and observations, to explore people’s learning in various contexts (Kyburz-Graber, 2004).

The researcher interviewed business leaders from different tutoring companies with different organizational contexts and cultures. Since there was more than a single case, it was proper to use multi-case studies for this research project. What makes a multiple case study different from a single case study is that the researcher is studying multiple cases to understand the differences and similarities between the cases (Gustafsson, 2017). Besides, the researcher can analyze the data within and across situations in a multiple case study (Yin, 2009). Another advantage of a multiple case study is that the identification of commonalities between cases strengthens the validity of emerging theories from the individual case studies (Tellis, 1997). In this research, the researcher explored the similarities and patterns of the business leaders’ learning to think strategically in the subject matter and the non-subject tutoring companies.

### **Research Sample**

The researcher interviewed 15 business leaders from the tutoring industry remotely, with 8 from subject-tutoring companies and 7 from non-subject-tutoring companies. The interviewees were from different cities in China, including Beijing, Guangzhou, Changsha, etc. These

companies actively explored solutions to adapt to the new changes brought about by the Pandemic and the DRP.

The researcher used purposeful sampling to select the interviewees, snowballing in particular. As Merriam (1998) puts it, investigators aim to discover, understand, and gain insight and must select a sample from which they can learn the most. Therefore, purposeful sampling fit the researcher's need to find interviewees with relevant expertise in strategic thinking. Snowball sampling may help researchers discover characteristics of a population they initially find difficult to identify (Glen, 2022). In this research project, snowballing as a purposeful sampling method helped connect with potential interviewees. The researcher connected with business leaders known as strategic thinkers or strategic learners. These interviewees connected the researcher with other business leaders who excelled in combating the crisis in their sub-field of the tutoring industry. However, strategic thinking is an ability rather than a title, so it is challenging to recognize strategic thinkers from any company without knowing what they did to survive the crisis. Therefore, snowballing brings a risk that the referred participants do not turn out to be qualified interviewees.

The criteria the researcher used to select the interviewees included that (1) they were current mid-level or top business leaders in their companies who were actively trying different approaches to adapting to the new environment; (2) they had been in the tutoring or educational industry for more than ten years, because it takes ten or more years to cultivate one's expertise (Ericsson et al., 2007; Goldman, 2012); and (3) they were known as excellent strategic thinkers by other interviewees and dealt with the crisis in an effective way.

To collect the data from interviewees, the researcher used a survey, semi-structured interviews (including the critical incident technique), and focus group discussions to explore

their learning processes in depth. Using two or three data collection methods helped the researcher understand the interviewees' learning more comprehensively. As Patton (1990) points out,

Multiple sources of information are sought and used because no single source of information can be trusted to provide a comprehensive perspective. By combining observations, interviewing, and document analysis, a fieldworker can use different data sources to validate and cross-check findings. (p. 244)

For example, the researcher was interested in learning how business leaders in tutoring companies actively adapted to the new environment through strategic thinking and how they cultivated their strategic thinking capabilities. However, the researcher was also aware that the interviewees were from different companies and had adopted different approaches to dealing with challenges. Semi-structured interviews offered both consistency and flexibility in asking relevant questions. Dearnley (2005) states that semi-structured interviews offer interviewees the same questions within a flexible framework. Therefore, all interviewees were asked questions from the same loose set and encouraged to further discuss their experiences through open-ended questions based on their context and responses.

The critical incident technique was embedded in the interviews to further learn about their critical incident experience. The Critical Incident Technique (CIT) was developed and introduced by Flanagan (1954); it helps to understand the things people in a particular profession or activity should do—or not do—to gain the best chance of achieving their goals (Viergever, 2019). In the semi-structured interview, all the interviewees were asked the same questions concerning their perception of the crises, the strategies they developed to address the challenges from the crises, and the other factors that influenced the formulation of strategies. Meanwhile, CIT was used to encourage interviewees to share their critical incident experiences in relation to addressing challenges in the crises.



## Overview of Information Needed

Four types of information were collected in this research project. Table 3.1 presents contextual, demographic, perceptual, and theoretical information.

**Table 3.1**

*Information Collected in Response to the Research Questions*

Type of Information	What the Research Requires	Research Methods
Contextual	The content of the Double Reduction Policy and its impact on the tutoring industry, general information about the interviewees' companies and their services, products, number of employees, general business strategies in the crisis; staff and site description	Survey, Interviews (including Critical Incident Technique)
Demographic	Interviewees' educational background, years of work in the company and their position, personal information such as age and gender	Survey
Perceptual	Interviewees' description and explanation of the crisis, their learning activities to deal with the crisis, the outcomes they achieve with the learning activities, and their understanding of effective and ineffective learning factors or processes	Interviews (including Critical Incident Technique) Focus group
Theoretical	Literature review of sense-making models, informal and incidental learning, and strategic thinking/learning models	Literature review
Research question 1 How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?	The interviewees' description of their perception and understanding of the Pandemic and the Double Reduction Policy	Interview (including Critical Incident Technique) Focus Group Discussion

**Table 3.1** (continued)

Type of Information	What the Research Requires	Research Methods
Research question 2 What strategies, if there are any, did the business leaders develop to adapt to the new environment?	1) Interviewees' description and explanation of the actions they adopt to deal with the crisis; 2) Detailed description of the content, structure, and process of the activities	Interview (including Critical Incident Technique), Focus Group
Research question 3 In what ways, if at all, did the business leaders learn to think strategically while adapting to the new environment?	1) Interviewees' description of their learning process of addressing the issues in the crisis; 2) Interviewees' description of their strategies and insights to deal with some difficult situations;	Interview (including Critical Incident Technique), Focus Group
Research question 4 What other factors helped or hindered the business leaders' learning to think strategically in the crisis?	Interviewees' description and explanation of the other factors that may hinder or promote the learning to think strategically	Interview (including Critical Incident Technique), Focus Group

### **Overview of the Research Design**

In this research project, the researcher adopted an exploratory research design.

Exploratory research is a methodological approach that investigates research questions that have not previously been studied in depth (George, 2021). The following list summarizes the steps used to carry out the research, and the researcher then further articulates the in-depth discussion of each step.

1. Prior to the actual data collection, a selected review of the literature was conducted to study the contribution of other researchers and scholars from both China and the US in the broad

areas of strategic thinking and learning to think strategically, informal learning, and sense-making, especially the Cynefin Framework.

2. Following the proposal defense, the researcher obtained approval from the Institutional Review Board (IRB) office to proceed with the research. The IRB approval ensured that all the procedures and processes were subject to the standards and ethics of Teachers College, including the participants' confidentiality and informed consent.

3. Potential research participants were contacted via WeChat, a popular media app in China. Those who agreed to participate in the interviews received an email explaining the research project and containing a consent form. After they signed and returned the consent form, the researcher used an online survey to collect their demographic information and personal data concerning their gender, age, years of working in education, position in the company, and perception of strategy.

4. Semi-structured interviews (including the Critical Incident Technique) were conducted with 15 business leaders, 8 from subject matter tutoring and 7 from non-subject-tutoring companies located in different cities in China, about their experiences addressing the challenges in the crisis.

5. The researcher also conducted a focus group discussion with participants from different tutoring companies to cross-check this group's data collected from interviewees.

6. The researcher then read all the interview and focus group discussion, cleared the data, and translated the Chinese transcripts to English versions. It is noted that the researcher did not translate all the interview data but the relevant and useful data that answered the research questions.

7. After translation, the researcher used Nvivo to code the interview data, Miro to draw visuals and diagrams, and Google Doc to keep note of each participant's codes, summary, and quotes.

8. The codes and categories were then analyzed and synthesized within and between the cases.

### **Literature Review**

An ongoing and selective literature review was conducted to inform this study. Two major areas of literature were identified: strategic thinking and adult learning theories—including informal and incidental learning and sense-making. The review of informal and incidental learning focused on exploring the relationship between informal and incidental learning and the learning to think strategically, as well as how the definition and categorization of informal learning help better understand learning to think strategically. Finally, regarding sense-making, the focus was on the Cynefin Framework and the different ways of sense-making in a crisis, which would provide academic evidence when discussing and synthesizing the relationship between the participants' perceptions of the crisis and their learning to think strategically.

### **IRB Approval**

Following the literature review, the researcher developed and defended his proposal for this research project, which included the background/context of the problem, problem statement, purpose statement, and research questions in Chapter 1, the literature review in Chapter 2, and the proposed methodology as outlined in Chapter 3.

## **Methods of Data Collection**

The use of multiple methods and triangulation was crucial in obtaining an accurate and in-depth understanding of the phenomena under study. This strategy added rigor, breadth, and depth to the research and provided solid evidence of the data obtained (Bloomberg & Volpe, 2018; Creswell, 2014; Denzin & Lincoln, 2008). The researcher pursued a number of different data collection methods in this project, including surveys, interviews (including Critical Incident Technique), and focus-group discussions.

### **Phase I: Survey**

Potential participants were contacted through friends and referrals via snowballing. Fifteen participants were willing to participate in this survey. Besides collecting the participants' basic information about their background information and work, the survey was designed to collect their perceptions of the importance of strategies in leading their companies through the combined COVID and the DRP crisis.

An advantage of survey methodology is that it is relatively unobtrusive and easily administered and managed (Fowler, 1993). However, surveys can be of limited value for examining complex social relationships or intricate patterns of interaction (Bloomberg & Volpe, 2018). For the convenience of the research project, the survey included some questions that explored the participants' experiences and perceptions of strategic thinking. The survey served as a valuable supplement to other data collection methods. The survey can be found in Appendix B.

### **Phase II: Interview**

Interviews were the primary method for data collection in this research project. They included semi-structured interview questions and Critical Incident questions. Interviews produce rich and thick descriptions of the participants' experiences and help researchers clarify

statements and probe for further information (Bloomberg & Volpe, 2018). According to Yin (2009), case studies are primarily about human affairs and human behavioral events, and good interviewees can offer critical information or insights into such affairs and events, so interviews are an essential source of case study evidence.

An interview is fundamental to qualitative research (Bloomberg & Volpe, 2018; Merriam, 1998). Although we are interested in learning interviewees' behaviors and thoughts, it is literally impossible to observe all the behaviors and feelings the interviewees experienced or will experience. Merriam (1998) states, therefore, that interviewing is necessary when we cannot observe behaviors, feelings, or how people make meaning of the world around them. Moreover, it is generally the case that researchers conduct interviews when the events or behaviors we are interested in happened in the past and cannot be replicated.

Despite the benefits of a qualitative interview, interviews have their certain limitations. Among them, not all people are equally cooperative, articulate, or understand the questions similarly (Bloomberg & Volpe, 2018). Yin (2009) points out that interviewees' responses are subject to the common problems of bias, poor recall, and poor or inaccurate articulation. Yin proposes that it is reasonable to corroborate interview data with information from other sources.

### ***Critical Incident Technique***

The Critical Incident Technique (CIT) was developed and introduced by Flanagan (1954); CIT helps to understand the critical things people in a specific profession or activity should perform—or not perform—to have the best chance of achieving their goals (Viergever, 2019). CIT allows researchers to corroborate interview data and uncover and explore interviewees' perceptions through the interviews (Bloomberg & Volpe, 2018).

Flanagan (1954) introduced CIT and initially designed this technique to capture effective and ineffective behaviors about a designated activity, as described:

The critical incident technique consists of a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles. The critical incident technique outlines procedures for collecting observed incidents having special significance and meeting systematically defined criteria. An incident refers to any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act. To be critical, an incident must occur where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects. (p. 327)

Over the years, CIT has been improved and adapted to different principles. Ellinger and Watkins (1998) incorporated a constructivist approach that integrated aspects of Marsick and Watkins' (1990) model of informal and incidental learning to examine behaviors and detect patterns. They aimed to develop rich narratives that capture context, reasoning, and meaning from the perspective of participants (Ellinger & Bostrom, 2002). The intended result of this approach was to provide a more holistic understanding of the meanings people assign to their specific and critical actions to enable others to intervene to affect behavior effectively. Butterfield et al. (2009) also made modifications to CIT, calling it the Enhanced Critical Incident Technique (ECIT), which incorporates contextual and wish list questions and nice credibility checks for further exploration.

CIT assists researchers in exploring the business leaders' learning processes in greater depth. Just as Ellinger and Bostrom (2002) mentioned, it enables researchers to learn about the interviewees' rich narratives that capture context, reasoning, and meaning from their perspective. CIT also gives participants enough space to express their opinions and share their experience with less restriction of a given frame. As Woolsey (1986) points out, the critical incident technique is descriptive and exploratory, and researchers can use it mainly to collect a more

complete coverage of the content domain. However, there are some disadvantages to the Critical Incident Technique, including (1) a reliance on participants' memory, which may result in inaccurate descriptions of the events as their memory wanes; (2) a potential risk that participants may be unwilling to take the time to tell a complete story; and (3) a lack of adequate description of common and everyday events (Chell, 1998). In this research project, use of the critical incident technique is proper based on its potential to explore the connection between participants' strategies and their learning to think strategically. The updated version of interview questions, including CIT questions, is included in Appendix C.

### ***Interview Questions and Pilot Interviews***

In this research project, the researcher mainly used semi-structured interviews to learn how Chinese business leaders made sense of the crisis and how they learned to think strategically in response to it. Merriam (1998) states that interview questions are a mix of less-structured and open questions in a semi-structured interview. Neither the exact wording nor the order of questions is predetermined. Therefore, semi-structured interviews allow researchers to adjust to the interviewees' responses with relevant questions and interactive rigor. However, to maintain consistency in his interview questions, the researcher prepared the questions beforehand and kept them at hand for reference during the interviews.

The interview protocol the researcher developed focused on the research questions of the research project. The researcher developed his interview questions based on the four sub-research questions, with which he conducted three pilot interviews. As Maxwell (2012) points out, research questions formulate what researchers want to understand, and interview questions are what researchers ask people to gain that understanding. From the three pilot interviews, the researcher realized that interviewees found it difficult to answer the questions directly related to



the concepts of strategic thinking and that they had not been pondering how they could cultivate strategic thinking capability while addressing the problems in the crisis. Instead, they mainly focused on practical actions that would help them survive the crisis. Because the interview questions that focused on the cultivation of strategic thinking puzzled the interviewees. Therefore, the researcher shifted his interview questions from focusing on strategic thinking capability to the concrete action and principles the business leaders used to deal with the crisis, allowing the researcher to develop the interview questions more flexibly. The updated version of the interview questions can be found in Appendix C. Moreover, the researcher found that participants tended to discuss the impact of COVID-19 and the DRP together. It was not possible to discuss the impact of the DRP without mentioning the experience dealing with the difficulties of COVID-19. Therefore, the researcher decided to take the crisis of COVID-19 and the DRP as a whole instead of focusing on either of them.

### ***Interview Process***

The researcher sent individual emails to prospective interviewees, informing them of the purpose of the project and the research topic, and inviting them to participate in the interview. After the interviewees agreed to being interviewed, the researcher sent them confirmation emails and a university consent form (Appendix A) required by the IRB office. After the interviewees reviewed and signed the consent form, the researcher sent them the survey to collect their demographic and personal information as well as a list of questions the researcher might ask them in the interviews. The researcher conducted interviews with the interviewees between October and November at a prearranged time convenient for both sides. All the interviews were conducted on Tencent Meeting or Zoom and recorded entirely. After completing every interview, the researcher transcribed the interview and began analyzing the data promptly.

### **Phase III: Focus Group**

According to Rabiee (2004), a focus group is “a technique involving the use of in-depth group interviews in which participants are selected because they are purposive, although not necessarily representative, sampling of a specific population, this group being ‘focused’ on a given topic” (p. 655). The goal of a focus group is to create a mutually provoking conversation where participants address a selected topic in depth and reveal their understanding of the topic (Bloomberg & Volpe, 2018). One distinct feature of focus group interviews is the group dynamics; hence, the type and range of data generated through the social interaction of the group are often more profound and richer than data obtained from one-to-one interviews (Thomas & Taylor., 2002). Using a focus group interview generates a deeper insight into the shared patterns of the interviewees’ strategy formulation in the crisis and their learning practices in cultivating their strategic thinking capability in this process.

There are different uses of the focus group, including: (1) to elicit a range of feelings, opinions, and ideas; (2) to understand different perspectives and different reference points; (3) to uncover and provide insights into specific factors that influence the opinions; and (4) to seek ideas that emerge from the group (Krueger & Casey, 2000). These uses were also suitable for this project, where the researcher was interested in exploring the interviewees’ perceptions and strategies to cope with the crisis. In addition, the focus group generated emergent ideas with inspiration from people in the same industry.

Further data and implications are generated through the synergy of the group interaction in a focus group (Green et al., 2003). However, due to individual differences, Krueger (1994) reminds researchers to select participants carefully and believes rich data can only be generated if individuals in the group are prepared to engage fully in the discussion; for this reason, the use

of a homogeneous group is advocated. In his focus group, the researcher spent time picking interviewees who were willing to share their inner thoughts and insights into the current crisis and their various approaches to adapting to the new environment.

A 90-minute focus group interview was conducted with five participants who were willing to further share their insights and strategies with other high-level leaders from different tutoring companies. The purpose of this focus group was to (1) seek further data that helped better understand their learning to think strategically; and (2) enhance the trustworthiness and credibility of the researcher's data collection. The focus group was conducted via a group zoom meeting, and the entire session was recorded. The updated version of the focus group interview protocol can be found in Appendix D.

### **Methods of Data Analysis and Synthesis**

The focus of data analysis is to make sense of the data, reduce the large volume of information, figure out the significant patterns, and construct a framework that aligns with the purpose of the research (Bloomberg & Volpe, 2018). One of the most common problems of analysis is letting unanalyzed notes and transcripts pile up, so Maxwell (2012) suggests beginning to analyze notes and transcripts after finishing the first interview or observation and continue analyzing the data as long as a researcher is working on the research, stopping to write reports and discussion along the way (p. 106).

Besides the general strategies above, the researcher followed a step-by-step process to analyze the data he collected from the research. The first step the researcher took was transcribing the oral interview data into electronic texts, translating them into an English version, and preparing all other collected data from documents or research memos for coding and analysis. When the transcripts, notes, and documents were ready after every interview, the researcher

inserted the e-version of these materials into Nvivo, a qualitative data analysis software, before coding. The researcher coded the first interview on a separate Excel sheet on his computer to familiarize himself with the codes he might use. Later, the researcher used the software Nvivo to code all the transcripts. Next, he read the interview transcripts, notes, and documents to be analyzed and watched the recording, if necessary, before writing down some tentative ideas about the categories and relationships between leaders' strategies and their learning to think strategically.

Merriam (1998) also advises that researchers jot down notes, comments, observations, and queries in the margins from the beginning of data analysis. The researcher followed this advice, maintaining regular and running research memo about his thoughts and hunches on the analysis that facilitated his analytic process. Over time, the researcher compiled these into memo books.

Second, the researcher used an elemental coding method, In Vivo coding in particular, to code the data in the first round of coding. According to Saldaña (2021), elemental coding methods are the primary approaches to qualitative data analysis. There are five types of elemental analysis, including structural coding, descriptive coding, process coding, In Vivo coding, and initial coding. They are basic but offer focused filters for reviewing the corpus, and they build a foundation for future coding cycles. The researcher used In Vivo coding, as it allowed him to use the interviewees' original words as codes, giving the participants "a voice" (Saldaña, 2021, p. 61). The codes captured the essence of—and the connection between—the participants' original thoughts about their strategic learning and their thinking process as they adapted to the new business environment.

In addition, these codes revealed information that helped make sense of the phenomena occurring and served as interpretable pieces of information in the absence of additional information other than a broad understanding of the broad context of the research (Lincoln & Guba, 1985). When the researcher finished coding the data of one interview, he kept a running list of codes, a summary, useful quotes, and even diagrams that also served as references for the subsequent interview coding. As Merriam (1998) suggests, the list may be long because the researcher does not know what codes may or may not be subsumed under others in the first round of coding along the way.

Coding is a “cyclical process” (Saldaña, 2021, p. 8). In the second round of coding, the researcher collapsed the original number of first-cycle codes into a smaller number and kept the more important and relevant codes, as he had a better sense of the research. When the researcher completed the first and second round of coding using In Vivo coding and pattern coding, he categorized the codes according to their “similarities and regularities” (Saldaña, 2021, p. 7). To categorize is to rearrange codes in a systematic manner in qualitative research (Saldaña, 2021). From Grbich’s (2007) perspective, to categorize codes is to “segregate, group, regroup and relink the codes in order to consolidate meaning and explanation” (p. 21). There were a great number of codes, but the researcher used classification reasoning according to the categories and descriptors of the study’s conceptual framework as well as his intuitive sense to determine what codes looked or felt alike when grouping them (Lincoln & Guba, 1985).

The researcher’s goal of data analysis was to move from a concrete description of observable data from the interview to a somewhat more abstract level of themes that describe the phenomena (Merriam, 1998). As Patton (1990) argues, this theorizing process serves to develop a theory that explains some aspects of educational practice and allows researchers to understand

better and infer future activities; the process is full of ambiguity and contextual nuance and can be more disorienting than illuminating.

Based on his research purpose and the conceptual frameworks, the researcher decided what categories should be retained and what categories should be put aside. Speculation (Merriam, 1998, p. 190) was another strategy the researcher used in this phase because it permitted him to go beyond the data and make understandable guesses based on what he learned from the interviews in the context of his conceptual frameworks.

The researcher then continuously integrated and refined the categories, properties, and hypotheses while trying to find the interconnectedness of the theories that explained the links between the business leaders' learning to think strategically and their strategies to deal with the Pandemic and the DRP.

### **Ethical Considerations**

In any research study, ethical issues related to the protection of the participants are vital (Bloomberg & Volpe, 2018; Merriam, 1998). Researchers are responsible for informing and protecting participants regarding the research questions and purpose. The central issue concerning protecting participants is how the information is treated (Bloomberg & Volpe, 2018). Merriam (1998) also points out that ethical dilemmas are likely to emerge in collecting data and disseminating findings. In this research project, the researcher employed the following measures to protect the participants' rights and privacy.

First, consent forms were signed by the interviewees, and the content of the interviews remained confidential. Participants' confidentiality was well protected. The source of the original data could be accessed by the researcher only. The consent form with the description of the research and the participant's rights is found in Appendix A.

Second, during the data collection process, the researcher let the interviewees know his research topic, research purpose, and how the researcher was going to use the data so that they could decide to what extent they wanted to share their information. Importantly, the researcher informed the participants that they could stop the interview anytime they felt they needed to. Thus, he invited the participants to share their perception of the crisis and their coping mechanisms in this research project. He was careful not to arouse their pain or suffering since they had been given clear permission, if it felt necessary, not to discuss too frustrating or painful incidents, such as being laid off, encountering financial hardship, or similar experiences.

Third, participants' confidentiality would be well protected when reporting and disseminating the interview data and research results to the public. The researcher ensured there would be no identifiers to his participants in any publications from this research project.

Fourth, serious measures were taken to make sure nobody other than the researcher would have access to the recordings, interview data, and transcripts.

### **Issues of Trustworthiness**

In qualitative research, trustworthiness features consist of researchers' efforts to address the qualitative issues of validity (the degree to which something measures what it purports to measure) and reliability (the consistency with which it measures it over time) (Bloomberg & Volpe, 2018). According to Merriam (1998), all research is concerned with producing valid and reliable knowledge in an ethical manner. She further explains that "validity and reliability are concerns that can be approached through careful attention to a study's conceptualization and the ways in which the data were collected, and interpreted, and the ways in which the findings are presented" (p. 200). Maxwell (2012) argues that methods cannot guarantee the validity of the research. Instead, he says that validity is relative and has to be assessed in relation to the purpose

and circumstances of the research. As Irwin (cited in Maxwell, 2012) further explains, it is crucial that researchers use methods to collect evidence to rule out potential validity threats. In this research project, the researcher used validity checks as a way to make his research design reliable and generalizable to similar business contexts in China.

The following section explains how the researcher addressed the issues of validity and reliability.

### **Internal Validity**

Internal validity deals with the question of how research findings match reality. Internal validity in all research hinges on the meaning of reality (Merriam, 1998). As reality is multidimensional and ever-changing and is subject to human construction (Lincoln & Guba, 1985), it is critical that this human construct of reality yields high internal validity.

To improve the study's credibility, the researcher used several strategies in this research project. First, the researcher used triangulation in the different data collection processes. According to Denzin (2017), triangulation refers to using multiple investigators, multiple sources of data, or multiple methods to confirm emerging findings. The researcher employed different data collection methods in this research project, including interviews, surveys, critical incident techniques, and focus group discussions. Second, the researcher had member checks (Merriam, 1998) with the data and findings. He returned to the interviewees and had them check the data and findings to see if they were plausible. Third, peer examination: the researcher invited his advisers and peers in the doctoral cohort to make comments on the coding process, the analysis process, and the discussion of the findings. Fourth, to be aware of his potential bias, the researcher kept a research journal, noted down the questions that emerged in the research project, and maintained a critical attitude toward his assumptions as a researcher in this project.



## **Reliability**

Reliability refers to the extent to which research findings can be replicated (Merriam, 1998). If the findings of a research study are reliable, replicating the research will theoretically produce the same results. However, considering the nature of social science research, it is almost impossible to produce the same results in a human interaction situation because human behaviors are constantly changing (Merriam, 1998). On the other hand, as a researcher is the instrument of qualitative research, there is also a possibility that the results are repeatedly incorrect because the researcher does not observe, collect, or analyze data in a correct manner, thus creating unreliable findings.

Lincoln and Guba (1985) suggest using the terms “dependency” or “consistency” to replace reliability in qualitative research. In other words, the research findings do not have to be repeated in other research. Instead, what matters is whether the research findings make sense to the readers and whether they are consistent or dependable.

There were three strategies the researcher used to enhance the dependability or consistency of the researcher’s research. First, the researcher explained his position as clearly as possible in this research. He articulated his assumptions and the theory behind this research considering the context of the research project, the criteria the researcher used to select his sample, and the bias he had toward the organizations and the external social context.

The second was triangulation. Multiple data collection and analysis methods were used to enhance reliability and internal validity.

Third, the researcher kept a record of the investigation. As Dey (1993) suggests, if a researcher cannot expect others to replicate the results, they can try their best to explain how the data were collected, how categories were sorted out, and how the findings were reached after

analysis and interpretation. The researcher kept a clear and proper account of the data collection and analysis process and kept reflecting on the reliability of this process.

### **External Validity**

External validity answers the question: To what extent can the findings of one study be applied to other situations? In other words, are the findings of a research study generalizable and serve as important references for other situations (Merriam, 1998)? The generalizability of qualitative research has been under doubt for some time (Maxwell, 2012; Merriam, 1998). However, different from quantitative studies, the primary goal of qualitative research is to find trustworthy and understandable results. In other words, the results of a qualitative study are to best capture the hidden patterns of the specific research and offer readers an understandable and useful interpretation of the findings. Generalization to other studies is secondary to this goal (Yin, 2012).

The researcher mainly used two strategies to enhance external validity in this research project. The first one was using 15 cases to study the same phenomenon. Using multiple cases and the predetermined questions and data collection procedure enhanced the generalizability of findings (Merriam, 1998; Yin, 2012). There were 15 interviewees from the subject-tutoring and non-subject-tutoring companies. They were all affected by the Pandemic and the Double Reduction Policy. Though the researcher used semi-structured interviews and the critical incident technique, the data collection and analysis procedure remained similar.

The second strategy was rich and thick descriptions of the cases. The researcher provided readers with enough information and description of his research so that readers or business leaders could decide what insights or knowledge they could adapt or transfer to their situation.

Firestone (as cited in Merriam, 1998) points out that it is the readers who have to ask and think about the applicability of the results while they are studying the research.

### **Limitations of the Study**

There were certain limitations in this research study. Some of the limitations stemmed from the nature of qualitative research, and some were due to the researcher's own experience.

In qualitative research, researchers have their subjectivity, including bias, interests, knowledge system, personal preferences and beliefs, and needs (Bloomberg & Volpe, 2018), which may affect the objectivity of the research project. In this research project, the researcher was working as an external researcher. He had only formally worked in the tutoring industry previously for some part-time opportunities. Meanwhile, as an English teacher in the past, he might have formed some preconceived assumptions about the tutoring industry in China. These assumptions could tacitly influence the researcher's analysis and interpretation of the business leaders' learning to think strategically in the tutoring industry.

As for data coding process, the researcher translated the interview transcripts from Chinese to English all by himself and did not have others check the accuracy of his translation. The researcher's subjective understanding of the interview data might influence the internal validity of the data. If possible, the researcher would invite one more professional translator to conduct translation together. He will also consider using reverse translation to make sure that the translation does not distort the interviewees' meaning of narration.

Another limitation was the interviewees' perceptions of strategic thinking and learning to think strategically. In the researcher's pilot study, the interviewees did not clearly understand the concept of strategic thinking. They took active measures to adapt to the new environment in

response to the Pandemic and the Double Reduction Policy. However, they did not perceive these actions as learning to think strategically, nor did they regard it as learning.

The researcher took two measures to address the limitations of the research project. First, the researcher acknowledged his research agenda and stated his assumptions at the beginning of the research study. The researcher invited his advisors and peers to review his transcripts, coding schemes, and data analysis to reduce possible bias and validity threats. Second, instead of inviting the interviewees to answer questions related to strategic thinking, the researcher focused on their practical experience of addressing the challenges in the crisis. The researcher made the environment open and honest for interviewees to share their knowledge and experiences in the crisis and draw insights from their experience about learning to think strategically.

Besides researcher subjectivity and interviewees' lack of understanding of strategic thinking, another limitation might be the generalization of this research study. The researcher interviewed 15 business leaders in the tutoring industry, most of whom survived the crisis. However, China is a large country, with more than one million tutoring companies and millions of leaders (NIES et al., 2020). Therefore, the data the researcher collected from 15 business leaders in the tutoring industry might well be insufficient to generalize the business leaders' strategies and their learning to think strategically in this industry. Meanwhile, as 14 out of 15 interviewees and their companies survived the crisis, their answers to the interview questions might be biased by their successful experiences, which did not represent experiences of those who failed in the crisis.

### **Summary**

This chapter provided a detailed description of the study's methodology. A qualitative case study methodology was employed to illustrate the ways business leaders in the tutoring

industry made sense of the current crisis and how they learned to think strategically while addressing the challenges in the crisis. The sample of 15 interviewees were purposefully selected using snowball sampling. Four data collection methods were used—surveys, interviews, critical incident techniques, and a focus group—to learn about their learning processes in depth. To improve the trustworthiness of the research project, different strategies were used, including triangulation of interviews, surveys, and focus group discussion, together with peer review, and keeping a running research journal for bias check.

The researcher coded the interview data based on the conceptual framework of the study. Then, key themes from the findings were identified and compared, followed by a discussion of the findings and concluding the research project. The findings of this research should help people better understand how business leaders in the tutoring industry in China developed strategies to adapt to the new environment and cultivate strategic thinking in a time of crisis. Additionally, it was hoped that this research's findings would contribute to the literature on strategic thinking.

## Chapter 4: Findings

*All men can see these tactics whereby I conquer, but what none can see is the strategy out of which victory is evolved.*

— Sun Tzu (544—496 BC), ancient Chinese strategist

### Overview

The purpose of this modified exploratory multicase study was to explore how leaders in the Chinese tutoring industry made sense of the crisis of the Pandemic and the Double Reduction Policy and learned to think strategically in a time of crisis through qualitative case studies. This study addressed the following four research questions:

1. How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?
2. What strategies, if any, did the business leaders develop to adapt to the new environment?
3. In what ways, if at all, did the business leaders learn to think strategically while adapting to the new environment?
4. What other factors helped or hindered the business leaders' learning to think strategically in the crisis?

This chapter presents findings from 15 in-depth interviews (critical incident interviews included) and a 90-minute focus group conducted with five participants selected from the 15 interviewees. The chapter begins with a description of the participants. It next provides a summary of the findings, organized by research questions. Each finding is then discussed in detail with supporting data from the study.

## Description of Participants

The participants in the interviews (typically 60 to 90 minutes) were from 12 cities in China. Fourteen of the 15 participants had at least 10 years of experience in the education industry and held a leadership role in the organization where they were working. One participant had only nine years of experience in the education industry when the interview was conducted. She was referred to the researcher by another participant. However, she had nine years of work experience as a business owner and practitioner in the tutoring industry, so the researcher took her as one of his interviewees. Table 4.1 presents each participant’s pseudonym, gender, level of experience, and the type of tutoring service their company offered.

**Table 4.1**

*Participants’ Pseudonym, Experience Level, Gender, and the Type of Tutoring Service by Their Company*

Participant	Gender	Position (years of experience in the role)	Years of experience in education	Type of tutoring service offered by their company
Sam	Male	Founder/CEO (12)	16	Non-subject-tutoring
Amy	Female	Team manager (2)	10	Non-subject-tutoring
Jim	Male	CEO (12)	16	Non-subject-tutoring
Ling	Female	Founder/CEO (8)	20	Non-subject-tutoring
Andy	Male	Founder/CEO (10)	14	Non-subject-tutoring
May	Female	Founder/CEO (9)	9	Non-subject-tutoring
Tim	Male	Founder/CEO (2)	10	Non-subject-tutoring
Jack	Male	Founder/CEO (15)	20	subject-tutoring
Jackie	Female	Founder/CEO (2)	11	subject-tutoring
Joe	Male	Founder/CEO (24)	38	subject-tutoring
Jane	Female	Founder/CEO (25)	26	subject-tutoring
Chuck	Male	Principal (4)	17	subject-tutoring
Leo	Male	Team manager (2)	12	subject-tutoring
Tom	Male	Founder/CEO (8)	17	subject-tutoring
Jacob	Male	Founder/CEO (5)	10	subject-tutoring

Among the 15 participants, 10 were male and 5 were female. Nearly half (7/15) of the participants had a work experience in education between 9 to 15 years, 6 worked in education between 16 to 20 years, and the remaining 2 worked in education for more than 20 years. As for their positions, the majority of them (12/15) were founders and CEOs. Two were mid-level managers and the last one was a principal in charge of a campus site under a huge Chinese education company. The numbers of non-subject-tutoring companies and subject-tutoring companies in this study were close (7:8).

### **Summary of the Findings**

The study produced four key findings addressing the four research questions.

- First, the participants reported that the crisis of COVID-19 and the DRP brought a negative impact on the tutoring industry at different levels, but it also served as a valuable learning opportunity for their long-term development.
- Second, the participants reported that they developed various strategies at personal, organizational, and social levels.
- Third, the participants reported learning to think strategically from direct and indirect experiences, as well as two thinking processes.
- Fourth, the participants reported politics and relationship to be two other important factors that helped or hindered their learning to think strategically.

Each of these core findings will be supported by a number of more detailed sub-findings. Table 4.2 presents the study's findings and sub-findings, organized in response to the research questions.



**Table 4.2***The Study's Findings and Sub-Findings, Organized in Response to the Research Questions*

Research question	Findings
1. How did business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?	<p><b>Finding 1: The participants reported that the crisis of COVID-19 and the DRP negatively impacted the tutoring industry at different levels, but it also served as a valuable learning opportunity for their long-term development.</b></p> <p>1.1: Both COVID-19 and the DRP impacted the tutoring industry negatively, but the influence of the DRP was reported to be more disastrous, especially to the subject-tutoring companies.</p> <p>1.2: The crisis helped promote the business leaders' growth, their businesses' sustainable development, and the long-term progress of Chinese education.</p> <p>1.3: Based on the Cynefin Framework, one participant perceived the crisis as chaotic, three perceived it as complex, and nine perceived it as complicated.</p>
2. What strategies, if any, did business leaders develop to adapt to the new environment?	<p><b>Finding 2: The participants reported that they developed strategies at personal, organizational, and social levels.</b></p> <p>2.1: At a personal level, the participants emphasized the importance of a growth mindset and enhanced awareness of risks.</p> <p>2.2: From the organizational perspective, the participants highlighted the strategy of focusing on the core problems of their challenge, reserving money for crises, and actively exploring other businesses.</p> <p>2.3: The participants considered various stakeholders' interests when making business decisions.</p>
3. In what ways, if at all, did business leaders learn to think strategically while adapting to the new environment?	<p><b>Finding 3: The participants reported learning to think strategically from direct experiences, indirect experiences, and two thinking processes.</b></p> <p>3.1: The participants reported learning from direct experiences dealing with the crisis, especially from 1) reflection and 2) trials and errors.</p> <p>3.2: The participants also reported learning from experiences that were indirect but relevant to the crisis.</p> <p>3.3: The participants learned from two types of thinking: systems thinking and metaphorical thinking.</p>
4. What other factors helped or hindered the business leaders' learning to think strategically in the crisis?	<p><b>Finding 4: The participants reported policies and relationships as two outstanding factors that hindered or helped their learning to think strategically.</b></p> <p>4.1: Policies are one critical factor that influenced the participants' learning to think strategically.</p> <p>4.2: Relationships (friendship, spouseship, and business partnership) helped the participants learn to think strategically from different perspectives.</p>

The remainder of this chapter will begin with the description of each of the four findings and research questions and the purpose and significance statements. The researcher then discusses the findings and sub-findings with support from the data collected.

### **Finding 1**

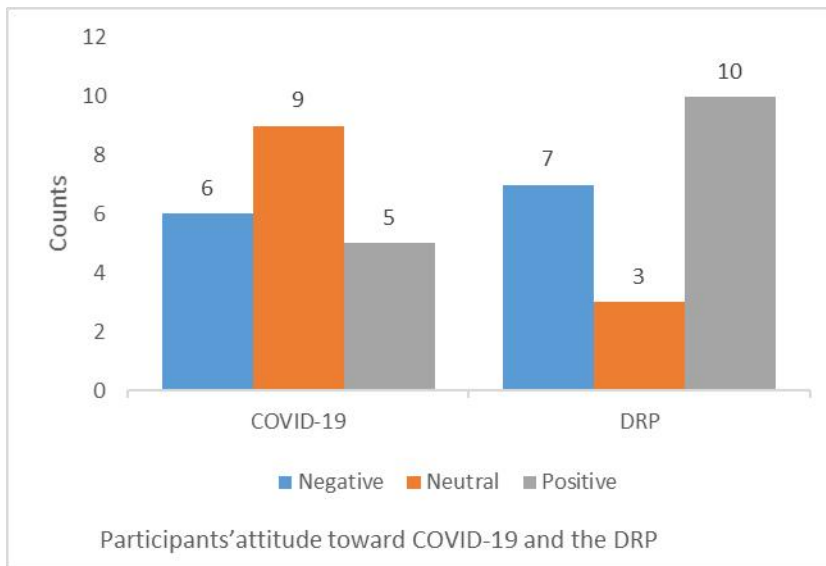
*The participants reported that the crisis of COVID-19 and the DRP negatively impacted the tutoring industry at different levels, but it also served as a valuable learning opportunity for their long-term development.*

The first research question is how the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy. The purpose of this research question is to get to know how the business leaders perceived COVID-19 and the Double Reduction Policy. The findings of this research question will be used to better understand business leaders' strategies and learning under different perceptions.

In ways reflecting the different meanings of the two Chinese characters the word “crisis”—“wei (danger)” and “ji (opportunity)” —participants reported having mixed perceptions of the crisis created by COVID-19 and the Double Reduction Policy. All of them showed a mixed attitude of positivity and negativity toward the crisis of COVID-19 and the DRP, though most of them—but not all (See explanation below of some whom the researcher also recorded as neutral.)—showed a skewed positive or negative perception of the Pandemic or the DRP. The researcher used the following figure (Figure 4.1) to visualize the total counts of the 15 participants' perceptions of COVID-19 and the DRP, respectively. The researcher coded some of their perceptions as both “neutral” and “positive” or “negative” when they did not show a strongly skewed attitude toward the crisis, so the total counts exceed 15, respectively.

**Figure 4.1**

*Participants' Attitude Toward COVID-19 and the DRP*



The figure shows that participants had different perceptions of COVID-19 and the DRP. As for COVID-19, a majority (9/15) were neutral about its impact. Some regarded it as an adverse event, while some thought it positively impacted their long-term development, but the numbers of the negative and positive groups were very close to each other. In contrast, the participants had a more direct and stronger perception of the DRP. Only a few showed a neutral attitude toward the policy. Nearly half of them (7/15) thought it exerted a more negative impact on the tutoring industry, while a majority of them (10/15) regarded the policy as beneficial to their development and the sustainable progress of Chinese education.

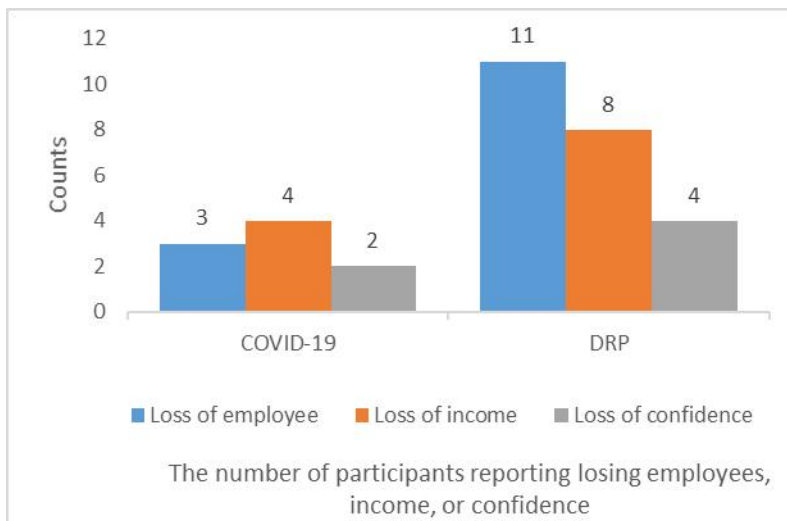
**Sub-finding 1.1**

*Both COVID-19 and the DRP impacted the tutoring industry negatively to some extent, but the influence of the DRP was reported to be more disastrous, especially to the subject-tutoring companies.*

Both COVID-19 and the DRP brought negative impacts, including the loss of employees, income, and confidence. However, based on the interview report (Figure 4.2), participants suffered more losses caused by the DRP.

**Figure 4.2**

*Loss of Employee, Income, or Confidence Due to COVID-19 and the DRP*



COVID-19 was a “universal test” (Ling) to everyone in the world and a “once-in-a-lifetime crisis” (Jim), and participants reported experiencing chaos at first and then an unexpectedly long shut-down during the Pandemic. The shut-downs led to losses of employees and business. Andy is a business owner of an art tutoring company in Wuhan where COVID-19 was first discovered. Andy’s biggest challenge was the irregular shut-downs: “For almost three years, we have been shutting down again and again intermittently. There were about seven or eight shut-downs, each of which lasted for a month every time.” The shut-downs led to a sharp decrease of income, but Andy still had to pay his 80 employees wages, which eventually led to a layoff of 50 employees.

Similarly, Jackie suffered losses of business and employees because of long-term shut-downs: “I just spent a great amount of money setting up a new English tutoring center, but then COVID came and I had to shut it down for half of a year.” Some of her employees left during this time. Jackie joked that the new center was “a child born in a famine year.”

Compared to COVID-19, the DRP hit the participants even harder. Most of the participants (11/15) reported losses of employees, and more than half (8/15) suffered a decrease in business and income. Jane is a female entrepreneur who owns a huge subject-tutoring company consisting of 43 campus sites and 1,200 employees prior to the DRP. After the DRP came out, she had to cut off nearly 25 campus sites and lay off about 800 employees. It was a painful time for her: “I couldn’t allow myself to stay unoccupied; I had to do some work. Otherwise, I would cry because of the unprecedented pressure.” Jacob was the only one out of the 15 participants who gave up his educational enterprise. Jacob’s subject-tutoring company was one of the best in his field and was “expected to get IPO [initial public offering] soon.” The DRP heavily affected his business because he focused entirely on online subject-tutoring. He adjusted his business but eventually gave up because he could not “see any possibility of listing the company in the stock market in the new environment.” Jacob revealed that he “lost his confidence in the educational industry and decided to move to other industries.” Like Jacob, May also thought that one of the negative impacts of the DRP was a loss of confidence: “Many people who devoted themselves to the educational industry lost their faith and eventually gave it up.”

### **Sub-finding 1.2**

*Participants reported that the crisis of COVID-19 and the DRP helped promote the business leaders’ growth, their businesses’ sustainable development, and the long-term progress of Chinese education.*

Despite the negative impact, the participants reported various positive outcomes and benefits from the crisis of COVID-19 and the DRP, especially the DRP. The first was promoting their personal growth. Having been a campus site principal for 17 years, Chuck realized the significance of examining his prior beliefs and behaviors in this crisis. He shared,

It is a common problem among many principals and teachers of ABC (name of the company) that we were so obsessed with our values and practices. But for the Pandemic and the DRP, I wouldn't have pushed myself to examine my previous beliefs and practices and walk out of my comfort zone.

As the CEO of his company for 10 years, Andy experienced “reflective learning” (Miller, 2012) during the crisis:

I think the Pandemic gave me time to reflect on myself. I am not as good as what I thought. I sometimes feel powerless because of a lack of reflection. I haven't kept up with the environment or reflected on my everyday experience. It limits my development and thus limits the growth of my company.

Some participants pointed out the benefits of the crisis on the sustainable development of their companies. Amy was a mid-level manager in an educational company. She argued that the Pandemic helped organizations expose their hidden problems that were usually ignored at a good time. “These problems won't go away. The earlier they are exposed, the better it is for the company to develop healthily.” Jack and Jane were owners of subject-tutoring companies. Though their companies suffered substantial losses in the crisis, the two entrepreneurs shared a similar point of view that the crisis served as an invaluable opportunity to build a stronger team. Jane described her team as an “Iron Team,” while Jack believed “the survival experience” would form a solid foundation for him and his company to “make greater achievements in the next decade or so.”

Five out of the 15 participants highlighted the long-term benefits of the DRP on the healthy development of Chinese education. Joe, a subject-tutoring company owner who had been

working in the educational industry for 38 years, criticized the corruption of capitalism in the educational industry:

If education is not for teaching or educating people but for money, then all the greedy people will come to the educational industry. Education requires morality, but capitalism won't prioritize it. If we let capitalism run the educational industry as it wants, we will sacrifice our children's and our country's future.

He thought the DRP cleared up the industry and put education back on track. Sam saw it from another perspective. He felt that Chinese education was too competitive, and the increasing number of subject-tutoring companies made the competition even more fierce. The DRP freed students from redundant and exam-oriented exercises and allowed them to explore their interests and inner gifts: "Every child is different, just like the four seasons. Spring helps flowers grow, summer brings us a breeze, autumn puts a bright moon up, and winter gives us snow."

In summary, the participants reported a mixed perception of the Pandemic and the DRP. They experienced the negative impact of the crisis of COVID-19 and the DRP, including losses of business, income, employees, and confidence. On the other hand, most participants reported being supportive of the DRP and regarded the crisis as beneficial to the long-term development of their business and Chinese education.

### **Sub-finding 1.3**

*Based on the definition of the Cynefin Framework, one person perceived the crisis as chaotic, three perceived it as complex, nine perceived it as complicated, and no one perceived it as obvious.*

According to Snowden (2005), to deal with a crisis, individuals make sense of a wide range of different situations and form strategic insights and ways of thinking to deal with challenges. They may choose between multiple possible explanations of different inputs that enable them to determine or respond to what is around them. In the Cynefin Framework

introduced by Kurtz and Snowden (2003), there are four major domains where people make sense of a crisis: the Obvious Domain, the Complicated Domain, the Complex Domain, and the Chaotic Domain. Table 4.3 summarizes the cause-and-effect relationships and other aspects of each of the four major domains and lists the numbers of participants who described their perceptions in ways that met the description of features characterizing a specific domain.

**Table 4.3**

*Domain Descriptions of the Cynefin Framework and the Number of Participants Whose Perceptions Met the Characteristic Features of a Specific Domain*

<b>Domain</b>	<b>Explanation</b>	<b>Number of Participants</b>
The Chaotic Domain	There are no perceivable relationships. Best practices from the past failures. There is no data to analyze and waiting for the emergent patterns is a waste of time. Learners need a new way of thinking, need to act quickly and decisively to reduce the turbulence, and then sense the reaction and take action accordingly.	1
The Complex Domain	There are cause-and-effect relationships between the agents, but both the number of agents and the number of relationships defy categorization or analytic techniques. Emergent patterns can be perceived but not predicted, and expert opinions may not sufficiently prepare learners for the situation. Probing for more perspective is a must.	5
The Complicated Domain	While there are separate stable cause-and-effect relationships, it takes time and effort to fully discover and understand the patterns. Learners need not just expert opinions but also experiments, fact examination, system thinking, and adaptive enterprise to move from the knowable to the known domain.	9
The Obvious Domain	Clear cause-and-effect relationships and patterns can be predicted and created. People agree on objectivity and the focus is on categorizing data, operational procedures, and work efficiency.	0



All 15 participants described their understanding of the Pandemic and the DRP, though none could explain why COVID-19 happened. Many mentioned other pandemics in human history. Almost every participant understood why the Chinese government issued and implemented the Double Reduction Policy. Meanwhile, it was the third year of the Pandemic and the second of the DRP, so the participants had passed the most challenging crisis period by the time the researcher conducted interviews. The participants shared their strategies and stories about the crisis; some were successful, while others failed. From their perspectives at this time, no one described the crisis as a chaotic situation.

However, based on his understanding of the Chaotic Domain and the interview data, the researcher thought that Amy's perception of the crisis could be placed between the Chaotic and the Complex Domains. She viewed the Pandemic as "an unpredictable natural disaster" and the DRP as "a policy that was discussed for many years and was eventually carried out." When asked for her strategy for leading her team, Amy's approaches were passive and evasive, "As a mid-level manager, I tend to avoid taking more responsibility. Laying back is a safe strategy." Amy did not share her experience testing other businesses or products. However, she focused more on her mental and physical health during the Pandemic and her insights into life values and the crisis. Amy's interview data did not address the in-depth complexities of the crisis, especially her role and strategies as a manager and the challenges she faced.

There were 5 out of 15 participants whose perceptions could be categorized into the Complex Domain. They had their understanding of the reasons why the Pandemic and the DRP came into being. They were actively testing different strategies, and some patterns emerged, but they were still trying to figure out what might work well and sustainably in the long term. They were still looking for new inputs and insights from peers and experts in the tutoring industry.

For example, as Jack shifted from subject tutoring to non-subject tutoring, he actively experimented with different business ideas, such as robotics, special education programs, and daycare services. He had yet to find successful models, but he had summed up various patterns for selecting potential businesses and treated the process as a self-development opportunity.

In May's case, she was worried about the impact of the crisis, especially the profound influence of the DRP on the development of the tutoring industry and entrepreneurs' confidence in education. She suffered heavily in the crisis and decided "not to put all the eggs in one basket," so she began exploring businesses in foreign and old-age markets. However, she did not share any new business models that had proven successful and was concerned as to whether she should persist in the education industry.

The remaining nine participants described the crisis as belonging in the Complicated Domain. They better understood the relationship between the cause and effect of the crisis, and they tried different approaches to surviving it. They discovered various valuable patterns in this survival experience, enabling them to develop their capability to thrive after the crisis. In addition, they were able to quickly learn and develop effective models from others' experiences and insights.

For example, Sam was able to develop certain principles to support his company's shift to online teaching. He adopted a three-fixer model—"Fixed teachers, fixed students, and fixed class time"—to improve the retention rate of his students during the crisis. He also achieved an integrated model that combined local and global resources in his online classes. However, he was concerned about how government policies and AI might change their business. The future remained uncertain to him.

Jacob's case is difficult to define in the context of the Cynefin Framework. As his company mainly focused on subject-tutoring, they were forced to shift from subject tutoring to non-subject tutoring by the DRP. After half a year, his company survived the crisis with several successful products and finally broke even. However, after careful consideration, Jacob decided to give up his enterprise in the educational industry and seek other potential markets. Meanwhile, he was able to draw many valuable insights from the crisis, including studying the Chinese ways of governing and economic development. On balance, then, the researcher categorized Jacob's perception of the crisis within the Complicated Domain instead of the Complex one.

No participant's perception was categorized within the Obvious Domain. Though 14 out of the 15 participants survived the crisis when the interview was conducted, they still treated survival as their top objective in the crisis. Apart from this, all the participants expressed clear concerns about the external environment, including the political environment, global economic recession, and international relationships.

In retrospect, though participants were asked about their perception of the crisis, they did not use the same vocabulary as the Cynefin Framework, so categorizing the participants' perceptions in that conceptual framework is a subjective process in light of the Cynefin Framework. Given the same data, other researchers might have a different list of categorizations and understanding of their perceptions.

## **Finding 2**

*The participants reported that they developed their strategies at personal, organizational, and social levels.*

The second research question is what strategies the business leaders developed to adapt to the new environment. This research question aims to learn what strategies the business leaders

described using and to discover the patterns of the shared strategies at different levels. The findings to this question helped the researcher and readers know what strategies the Chinese business leaders in the tutoring industry developed to deal with the crisis from different perspectives.

Due to the participants' levels of work experience, educational backgrounds, and the characteristics of their companies, the 15 participants shared a variety of strategies to deal with the challenges caused by the crisis of COVID-19 and the DRP. The researcher summarized these strategies into three levels: the personal level, the organizational level, and the social level.

### **Sub-finding 2.1**

*At the personal level, the participants emphasized the importance of a growth mindset and enhanced awareness of risks.*

A majority of the participants (11/15) reported staying positive with a growth mindset as their strategy to adapt to the new environment. Staying positive with a growth mindset means the participants remain positive and are prepared to learn and grow from the challenges. When asked about his strategies, Sam repeatedly quoted a sentence by Churchill in the focus group discussion: "Never let a good crisis go to waste." He believed that a crisis is a time when we grow profoundly in different ways. Jackie emphasized the importance of a growth mindset: "If you have a growth mindset, you will be willing to accept new challenges and ideas, which will bring you new solutions." In the face of challenges, Jim suggested studying ancient Chinese wisdom for inspiration: "Taoism is about change. It broadens your perspectives to understand the crisis." Ling reported that the crisis reminded her of her ignorance and the need to learn and grow continuously:

You think you are invincible when you run smoothly, but you have been ignorant of many internal management problems, as well as your own cognitive blind spots and incapability as a founder. When I saw so many companies and famous brands close one after another in this crisis, I felt panic and came to realize the need to be humble and a down-to-earth attitude toward business.

When asked about his critical incident, Andy shared a story about cultivating a growth mindset from failure. It was not his own business failure, but his good friend's sad failure. This friend, who was regarded as a highly successful businessman by many, ran a successful tutoring business prior to the crisis with sufficient capital in the company's account. However, he invested all the money in expanding his business and was forced to go bankrupt due to his inability to pay his debt after COVID-19 and the DRP hit. When reflecting on his friend's shocking bankruptcy, Andy shared,

As a business leader, one needs to be humble and be reflective on his personality and ignorance. If you have great ambition and aspire to make a big change without cultivating a strong sense of learning and reflecting, you may be trapped in your own personality and ignorance.

Andy also shared his formula for a growth mindset, summarized in Figure 4.3. First, he believes leaders need to be humble so that their ignorance and arrogance won't blind them. Meanwhile, leaders can grow by regularly reflecting on their decisions and mistakes. Besides learning from themselves, Andy also emphasized learning from history and excellent examples. "We visited schools in Israel and Finland. After returning, I reflected on their successful experience and tried to put it in my institute."

**Figure 4.3**

*Andy's Formula for a Growth Mindset*



Besides staying positive with a growth mindset, half of the participants (8/15) reported the strategy of cultivating enhanced awareness of risks. Jackie regarded this as her most critical strategy: Always being prepared with a Plan B when the worst situation happens. In the focus group discussion, Jim reported reminding his co-workers to “work for the best, but prepare for the worst” in a time of crisis. The statement helped his co-workers enhance their awareness of risks.

Chuck shared a success story about the importance of having an awareness of risks and how this awareness enabled their company to transition to online teaching smoothly:

Mr. Y (the company’s founder) laid out the plan of building our online educational system three years ago in case we needed it. Many people disapproved of the idea because we offered in-person teaching primarily. However, when COVID first happened, other companies struggled to shift to an online mode; we transitioned to online teaching effortlessly.

In comparison, Jack regretted not being prepared for the crisis: “Had I known that a long winter was coming, I would have stored sufficient cotton, abundant firewood, and tons of food that last long. Then, the DRP wouldn’t have struck me so badly.”

### **Sub-finding 2.2**

*From the organizational perspective, the participants highlighted the strategy of focusing on the core problems of the challenge, reserving sufficient money for a crisis, and actively exploring other businesses.*

When the crisis happened, numerous problems emerged. How did the participants deal with so many emerging issues simultaneously? A majority of the participants (11/15) emphasized focusing on the core problems of the challenge. They had different approaches to digging into the core problems. May used “asking questions out of curiosity,” and Amy suggested digging into one’s values to explore the core problems of the challenge. As an owner of a new startup with only 10 employees, Tim argued that small companies had limited resources

and the priority of a small company in a crisis was to survive. Tim shared his insight in the focus group discussion that business leaders need to actively explore a proper business direction and allocate limited resources in this direction. “We have a saying in China, ‘the best martial art is the fastest martial art.’ Once you know your direction, put all your resources in it so that you can run faster than your competitors.”

In comparison, Jane’s large-scale company had 23 campuses and more than 400 employees. For Jane, focusing on the core problems was simplifying the structure of her company to a few factors. “I told my team that our survival depended on doing a few key things well. The first is teaching implementation, the second is quality control, the third is class files, and the last is financial control.” To make teaching online more manageable, she and her team simplified all the textbooks and teaching pedagogy so that teachers had a clearer idea of their goals and tasks in a new environment. She further simplified their way of performance evaluation:

My emergency response at that time was that I wanted to make a simpler business model. My entire system has been simplified into a model with several diagrams. It works surprisingly well, even better than before.

According to Tom’s critical incident, relationships were his core focus when dealing with the challenges in the crisis. After the DRP was issued, he frequently communicated with his employees, students’ parents, and local authorities via chats, letters, and face-to-face talks. He believes in earning people’s trust and driving their commitments by meeting their priority needs.

The local authorities felt that their work was fulfilled because we merged two campus sites of a bankrupt tutoring company. The owner was grateful because he got money to pay his debts. Most importantly, the parents and the students felt secured that we are still running healthily.

In the most challenging time, Tom focused on building a mutual and trustful relationship with the key stakeholders, which drove them to commit and form a strong network to get through the crisis together.

Besides focusing on the core problems, a majority of the participants (10/15) reported reserving sufficient money for a crisis as one of the most important strategies they used in the crisis. According to the participants, the money reserved was used for two purposes. One was to pay for employees' regular salaries and the monthly rent of their workspace, even when their income sharply decreased because of COVID and the DRP. The other purpose was to compensate employees who were laid off and refund students' tuition because the subject-tutoring service was no longer allowed. During the focus group discussion, Jim shared that most tutoring companies went bankrupt because of insufficient reserved money. "No matter how powerful an enterprise's mission, culture, and genes are, it might come crashing down without reserved money." According to Tom, many business owners used up all the students' prepaid tuition to invest in expanding their businesses. COVID and the DRP came dramatically and unexpectedly, leaving them little time and space to get the necessary money to compensate employees and parents. Similarly, Leo, a team leader, regarded laying off 800 co-workers as the most depressing challenge in the crisis, but the company compensation policy made him feel not so "guilty." "At least the company compensated them with four months' salary so they could leave here decently."

Another organizational strategy was actively exploring other businesses. Nine out of 15 participants reported relevant experience exploring other business opportunities actively. Due to the Double Reduction Policy, many tutoring companies could no longer offer subject-tutoring services. They had to shift to other businesses or explore other business opportunities.



May and Jane began exploring overseas markets and tried to transfer their previous successful experience to other countries where students needed after-school tutoring. Leo highlighted “diversified business” as the key to surviving the crisis. Ling’s company focuses on Chinese literacy and oral capability, and she was exploring social media, especially live broadcasting and short videos, to attract more potential clients.

For Jack, he and his team tried to shift their company from a subject-tutoring organization to a service-oriented one. They explored setting up learning support centers where students could study without external distractions and seek support from subject experts.

Jim shared that he and the founder of the company established a brand-new online business class that focused on life-long learning during the crisis, covering different topics, including history, economy, COVID 19, and politics. This new class has been one of the most successful products his company has offered.

In short, 14 out of the 15 participants reported that their companies survived the crisis, and 13 of them shared relevant experiences of actively exploring other businesses. This strategy improved the companies’ likelihood of surviving the crisis.

### **Sub-finding 2.3**

*The participants reported considering various stakeholders’ interests when making business decisions as a strategy at a social level.*

The Double Reduction Policy exerted a broad and significant influence on different people. Jacob mentioned that the DRP affected not only tutoring companies and their clients (students and parents), but also public schools, their teachers, and officers of the local education department. Jackie took officers of the local education department into consideration when she was working out her strategy, and she maintained a good connection with them. “They (the

officers) wanted to make it a win-win situation for the business owners, too.” Similarly, Tom decided to take more social responsibility during the crisis; he took over three campus sites from another company that was shut down due to financial problems. It was a win-win situation for the three sides. Tom used less cost to merge three other new campuses and earned a good reputation. The previous owner got in-time monetary support, and his employees also kept their jobs. Meanwhile, the local education department was satisfied to offer support.

The company Leo was working on set outstanding examples of considering key stakeholders’ interests. His company is an industry leader. After the DRP, they shut down all their subject-related businesses and donated all the tables and chairs to schools in rural areas. Leo said, “We won’t offer any subject-tutoring services. It is the bottom line.” They set an example for other subject-tutoring companies. Meanwhile, they experimented with various possible business opportunities, some of which became highly successful. They delivered a strong message to other companies in the industry that business leaders could succeed by actively exploring other businesses. However, it is worth noting that they had abundant resources to explore different businesses, which was not possible for small-to-medium-sized companies.

In summary, different participants reported various strategies they used to help their companies or teams survive the crisis of COVID-19 and the DRP. They were categorized into these levels: the personal level, the organization level, and the social level. Reviewing the three levels offers us a comprehensive picture of participants’ various strategies.

### **Finding 3**

*The participants reported learning to think strategically from direct experience, indirect experiences, and two thinking processes—systems thinking and metaphorical thinking.*

The third research question is how business leaders learned to think strategically while adapting to the new environment. This question aims to understand the learning patterns business leaders reported about their learning to think strategically in the crisis. The findings help draw a clear picture of their learning practices and shed light on their learning processes.

The 15 participants reported having outstanding learning practices to become strategic thinkers from (1) direct experience, especially reflection and trials and errors; (2) indirect but relevant experience; and (3) abstract thinking processes, in particular, systems thinking and metaphorical thinking.

### **Sub-finding 3.1**

*The participants reported learning to think strategically from direct experience dealing with the crisis, especially from reflection and trial and error.*

Most participants (12/15) reported using reflection as an outstanding learning practice for thinking strategically. There were two types of reflection identified in their report: quick reflection and critical reflection.

Quick reflection refers to reflection on the business leaders' short-term reaction and daily management in response to the crisis and making meaning of what worked and what did not work. Quick reflection enabled participants to keep up with changes. Jim reported having an emergent team of several close business friends who regularly met to share information and insights when COVID-19 first broke out. Jim and his friends quickly dealt with the crisis based on the findings of their regular reflection. Quick reflection also helped participants accumulate essential knowledge and insight from daily crisis management. Sam reported benefiting from daily reflection on mistakes. "I regularly review some of the mistakes I made and the insights I have gained by reflecting on these mistakes."

Critical reflection refers to participants' reflection on their assumptions, values, beliefs, and ways of thinking during the crisis. "But for COVID-19 and the DRP, I would have repeated my fixed assumptions about the tutoring industry and my teaching thoughtlessly," Chuck admitted, adding that he was "too obsessed with some of the previous fixed beliefs about education" before the crisis. COVID-19 pushed him to "jump out of the box" and "walk out of his comfort zone." He realized that some of his strong beliefs were not sufficiently adaptive in the crisis and needed improvement. Jacob proposed conducting a critical reflection on the nature of the DRP and its further implications on doing business in China. "Chinese business owners need to study and understand what is meant by 'socialist market economy with Chinese characteristics,' a term the government often uses to describe the Chinese economy."

Trial and error refers to trying different experiments with business ideas in response to the crisis and learning from the testing processes. More than half of the participants (9/15) reported undergoing a trial-and-error process while learning to think strategically. Jane shared her thoughts about trial and error in the focus group discussion. She regarded this practice as "a problem-based learning process": "The process of running a business is to constantly foresee problems, presuppose problems, and then solve problems. In the process of solving problems, you review and then re-review, and then continue to improve."

Leo thanked his company for its "culture of allowing employees to try different business ideas": "The culture of the company is relatively free and loose. It also gives the remaining talents more resources and opportunities to try their business plans."

Ling regarded her learning as an exploratory journey. "It is hard to tell right from wrong because everything (in new business ideas) is exploration. We are now crossing the river by feeling the stones."

Jack shared his understanding of trial and error: “What we are doing is new, though we all have more than ten or twenty years of experience working in education. So it is reasonable that we allow trials and errors.”

### **Sub-finding 3.2**

*The participants reported learning from experiences indirect but relevant to the crisis.*

The indirect experiences ranged from the participants’ own experience dealing with other challenges that would inform them of crisis management, to the learned experiences from peers, competitors, ancient Chinese sages, or foreign entrepreneurs. Table 4.4 presents participants’ examples of learning from indirect but relevant experiences.

**Table 4.4**

*Examples Cited as Learning from Indirect Experience*

Participant	Example of indirect experience	Description
Sam	Learning from peers	Communicating with peers regularly for insights into crisis; studying cases of business failures
Jim	Learning from ancient Chinese sages or books	Learning I-Ching and drawing relevant insights from the book
Ling	Learning from industry experts	Observing experts running social media for educational service
Andy	Learning from the Communist Party	Studying the Chinese Communist Party’s history of founding China (PRC)
May	Learning from foreign experts	Observing experts from other countries reforming their education
Tim	Learning experts from another industry	Watching a medical documentary on emergency room management
Jack	Learning from the Communist Party	Studying the history of the founding of the Party
Joe	Learning from the Communist Party	Studying the motivation skills of the Party
Chuck	Learning from personal experience and industry experts	Dealing with crises in the past; Visiting successful competitors to gain expertise and knowledge
Leo	Learning from industry experts	Visiting successful competitors to gain expertise and knowledge
Tom	Learning from industry experts	Learning with experts online and in person regularly
Jacob	Learning from personal experience	Learning from his past entrepreneurial experience

As the table shows, most participants (12/15) reported learning to think strategically from indirect but relevant experiences. The first group of participants reported learning from their own indirect experiences, which informed their current crisis management. For example, Jacob shared his learning to think strategically by reviewing and learning from his past experience running a startup as a co-founder. The company he co-founded had experienced ups and downs and eventually got listed on the stock market, so he believed that his team could “replicate some expertise from [my] previous company.” Similarly, the company Chuck worked for had experienced several other crises in the past 20 years, some of which were even more serious than the DRP. Chuck was confident that he and his team could leverage their previous experience to get through this one smoothly.

The second group of participants reported learning from other people’s experiences or expertise. Leo reported “learning from other companies’ successful experience in the industry” when their company was trying out different business ideas. Sam also emphasized the importance of communicating with peers in the same industry in the focus group discussion: “Your peers may have already discussed the same challenges you face, and you may save time by communicating with them. You know, when a crisis comes, time is precious.” Both Andy and Jack mentioned learning from the founding of the Communist Party and the People’s Republic of China. The founders overcame great difficulties to build the Party and modern China, though they had scarce resources. Jack said, “Studying the Party's history has given me a lot of strength, knowing that the evolution (of my company) still has a long way to go.”

Similarly, Jim highlighted his learning from ancient wisdom, especially from the I-Ching (the Book of Changes) and Taoism. Jim understood the crisis from the perspective of the I-Ching:

“The next stage of the tutoring industry will be Fu Gua. Fu Gua in the I-Ching means recovery: subject tutoring is withering, but other tutoring and training services may flourish.” Jim further articulated how Taoism may shed light on our strategic thinking in a crisis:

We follow Tao, the general rules of the universe. If we see Tao and understand Tao profoundly, we can adjust some of our own tactics. Tactics are easy to learn and adjust, but Tao is always there. It is eternal, invisible and intangible, and it points to what the people want.

### **Sub-finding 3.3**

*The participants emphasized two types of thinking—systems thinking and metaphorical thinking—in their process of learning to think strategically.*

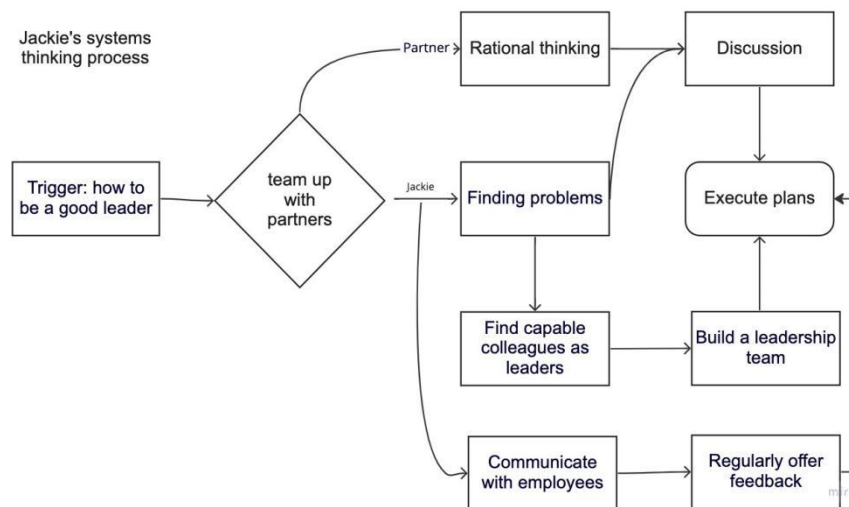
Systems thinking is a way of making sense of the complexity of the world by looking at it in terms of wholes and relationships rather than by splitting it up into its parts (Ramage & Shipp, 2009). Systems thinking offers a powerful approach to support evidence-based decision-making and is essential to successfully executing complex projects with many stakeholders and possible solutions (Weinberg, 2001). The participants reported using systems thinking when asked about their survival strategies. They did not just care about short-term survival but also long-term development. Amy emphasized the importance of “a healthy ecosystem” for Chinese entrepreneurs. She said, “Only when we have a healthy business ecosystem will good entrepreneurs be cultivated in China. Good leaders bring a good culture to their organization, which helps people in a company survive, stay, and develop.”

The participants used systems thinking while they were tackling different challenges in the crisis. For example, when asked about her critical incident during the crisis, Jackie, a young business owner, shared how she built a supportive leadership team and a response system to tackle the challenge of being a good leader. Jackie’s most significant challenge during the crisis was to be a good leader. Fortunately, Jackie had a reliable partner who was good at rational

thinking. Jackie, who was good at finding problems, felt it effective to discuss various problems with this partner and develop action plans. With these action plans, Jackie spent ample time finding another manager to help execute their plans and communicating with employees to learn from their feedback. Partners, communication, and feedback became the critical factors in Jackie’s newly established system to tackle her challenge of being a good leader. She utilized this systems thinking process (visualized in Figure 4.4) to tackle other challenges caused by the crisis.

**Figure 4.4**

*Jackie’s Systems Thinking Process to Tackle Her Challenge of Being a Good Leader*



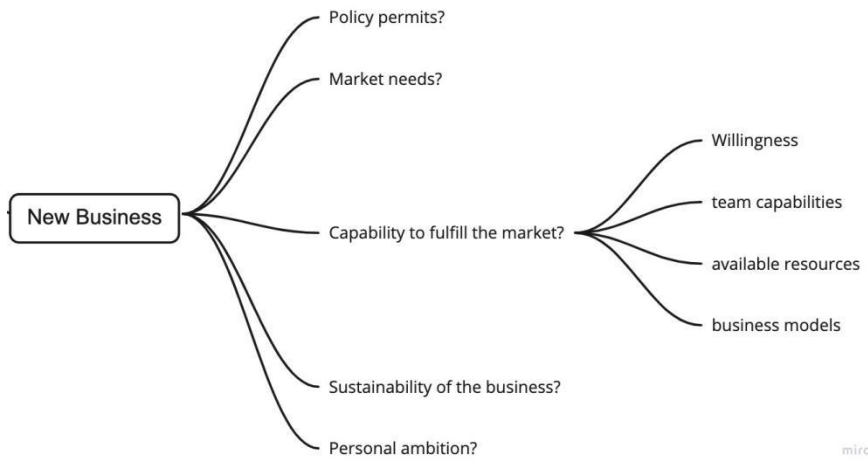
Participants also reported considering different parts of systems when developing a strategy. For example, Chuck reported his criteria to analyze businesses in a crisis. The criteria covered five key factors: finance, human resources, land, marketing, and expense. As a campus site principal, Chuck emphasized modifying business models consisting of the five factors based on the concrete conditions for each campus site of their company. Similarly, Jack reported asking himself five questions when considering a new business (visualized in Figure 4.5):



I would conduct a 5-dimension survey to determine if I could take up a new business. First of all, it should be permitted by the DRP. Second, is there a real market demand? Third, do we have the capability to meet it? If the answer is yes, then I will analyze what capabilities my team has. The fourth question is how sustainable the business is. You definitely do not want a faddish business. Last, does it meet my life ambition?

**Figure 4.5**

*Jack's Systems Thinking Process for Choosing a New Business*



Besides systems thinking, metaphorical thinking is another process the participants reported using while learning to think strategically. It is a mental process connecting two different universes of meaning and is the result of the mind looking for similarities (Mulder, 2017). Metaphorical thinking unearths the hidden connections between problems, objects, or situations in a creative or poetic way (Cuofano, 2022).

Nine of 15 participants used metaphors or analogies when asked about their strategies or their learning to think strategically. They used metaphors or analogies to make sense of the complex situation of the crisis.

For instance, Jackie regarded a new center of her company as “a new-born child in a famine year” when COVID-19 and the DRP both hit. The metaphor made her feel strong. “You have to be responsible for this baby.” Tim understood the crisis as a battle on a war field. “When

fighting on a battlefield, pay attention to the falling bombs and the direction from which the enemy comes. If you lose your fight, run firmly in the direction where there are fewer enemy troops. That might be the only way to survive.”

Participants also shared their understanding of their company or their role as a leader through a metaphor or an analogy. For example, Jane saw her company as a human body: “The operation of your organization is just like the functioning of a human body. It requires healthy heart, circulatory, and brain functioning.” Sam thought that a CEO was like a long-distance runner. “As a long-distance runner, don’t pay attention to your opponent but [rather to] your own breathing rhythm.”

Participants also reported gaining their insights from the crisis in the form of a metaphor or an analogy. Andy argued that one of the key lessons to getting through a crisis was to avoid unnecessary spending. He used climbing to explain his thought: “For example, when we are in a place where the air is thin, we try to reduce unnecessary movement as much as possible.” Sam used the growth of a tree to explain his strategic insight into the crisis: “The leaves grow in the rainy season, and the roots grow in the dry season.” Leo compared the risk-taking culture of his company to free soil for various flowers: “ABC [the pseudonym of the company] is full of flowers due to its free soil, and everyone believes that this company is willing and capable of investing in new businesses.”

In summary, participants reported various learning practices to think strategically. These learning practices are categorized into three types: learning to think strategically from direct experience, learning to think strategically from indirect experience, and learning to think strategically from two different thinking processes—systems thinking and metaphorical thinking.

There were also other learning practices, but these were limited to use by only a few participants, for example, reading books extensively or coaching and being coached. Therefore, the researcher did not include these learning practices as part of the findings to the third question.

#### **Finding 4**

*The participants reported policies and relationships as two outstanding factors that hindered or helped their learning to think strategically.*

The fourth research question is what other factors helped or hindered the business leaders' learning to think strategically in the crisis. This research question aims to discover other factors that played a minor but profound role in influencing the participants' learning to think strategically. The findings helped the researcher and will help readers have a more comprehensive picture of the participants' learning process to think strategically.

##### **Sub-finding 4.1**

*Policies and studying policies are one critical factor that may help or hinder the participants' learning to think strategically.*

Seven of 15 participants reported Chinese policies and the considerations behind the policies to be an influential factor when they learned to think strategically. The participants didn't simply define policies as a helping or hindering factor, because they are part of the business environment in China. However, different participants emphasized the necessity for one to study the policies and even the political system as a business leader. For example, during the focus group discussion, Jim shared his insight as a long-term CEO: "First, we need to study policy trends, understand policy changes, and assess the situation. This is our entrepreneurs' lesson, especially on the unique land of China." In Jim's opinion, there was a great amount of

policy uncertainty in China, and it was the business leaders' task to study the policies and their implications.

Jacob argued that entrepreneurs should learn to adapt to the DRP and pursue more in-depth study on how the Chinese government manages China's economy and develops its educational system. He argued that the influence of the government's policies on China's economy was more likely to be "a one-way channel." For example, like the DRP, other strong state policies or regulations may not compromise with business owners' expectations in the future. Jacob suggested that entrepreneurs closely observe the government's annual reports, five-year plans, and the collection of the president's thoughts. Like Jacob, Sam stated that there might be more aggressive state policies. "The government is taking more aggressive policies, and the private companies are retreating from the market."

May argued that educational entrepreneurs should get more involved in policymaking. She believed that business leaders' collective effort would promote more well-grounded policies: "If more entrepreneurs continuously took action to negotiate with the government, entrepreneurs would have their voice heard and have more say in the educational policy-making process." In contrast, Jack and Joe repeatedly stated that entrepreneurs did not need to discuss or negotiate with the government on policies like the DRP. In Joe's opinion, the government had its considerations that were not fully understood by the public. He believed that the socialist government took the interest of the majority of the people into consideration and that entrepreneurs should "support the government's policies instead of disrupting the execution of the policies." May is a young business leader, and Jack and Joe are experienced business leaders. They tended to have vastly different attitudes toward policies and the government's considerations behind them.

### Sub-finding 4.2

*Relationships (spouseship, friendship, and business partnership) helped the participants learn to think strategically from different perspectives.*

Nine of the 15 participants reported that relationship was a critical factor supporting their learning to think strategically. The researcher further categorized the relationship into three types: friendship, spouseship, and business partnership. Table 4.5 presents the type of relationship the nine participants mentioned.

**Table 4.5**

*Types of Relationships Cited as Helping Factors*

Participant	Gender	Type of Relationship
Sam	Male	Friendship
Jim	Male	Friendship
Ling	Female	Spouseship
Andy	Male	Friendship
May	Female	Spouseship
Jack	Male	Spouseship; Business partnership
Jackie	Female	Spouseship; Business partnership
Jane	Female	Spouseship
Tom	Male	Friendship

Four people mentioned that they benefited from friends' support. For example, Tom joined a community of entrepreneurs and reported exchanging thoughts and insights with friends from this community, which helped him broaden his perspectives during the crisis.

Four of the participants were friends who had always traveled and learned from each other. Though they took the interviews separately, three of the four participants mentioned the influence of their friendship on their learning to think strategically during the crisis. The four participants came from four different cities, but they set up an emergency group online when the Pandemic first broke out. Andy, one of the four participants, was from Wuhan, and he was able to share updated news with the other three participants when the virus was first detected in his city. Jim and Sam were the two other participants. They quickly adapted their teaching online based on the information Andy shared in the emergency group. Jim said, "We were among the first educational companies that shifted to online mode in China."

Another relationship that helped the participants learn to think strategically was spouseship or spousal support. Five participants reported getting support from their spouses. There were three types of spousal support.

The first type was emotional support. When May was at her most difficult period after the DRP was issued, it was her husband who offered her the strongest emotional support every time she felt frustrated and exhausted. May also argued that a lack of spousal support was the biggest challenge many entrepreneurs faced during the crisis—especially female entrepreneurs.

The second type of spousal support was intellectual support. Jane reported getting support from her husband in constructing new business models during the crisis. She reported that she was good at interpersonal relationships while her husband was good at conceptual thinking. Jane shared her thoughts and considerations with her husband, who "conceptualized the

details into feasible models.” Jackie also reported similar support: “I am good at building rapport and connection with my employees, while my husband is a calm and rational thinker. Sometimes, when I got emotional and cried, my husband would calm me down and help me figure out possible solutions.”

The third type of spousal support was financial support. During the COVID-19 quarantine period, Ling ran out of her reserved money. She felt grateful that her husband supported her with the money she needed to pay her employees’ salaries and the rent to the landlords.

It was also worth noting that four out of five participants who mentioned spousal support were female. The four female participants also offered more details about the specific support from their spouses. The only male participant who mentioned spousal support did not give the researcher sufficient description of that support.

Last, participants also reported business partnerships as a helping factor in their learning to think strategically. Jackie felt satisfied that she had a “complementary business partner”: “My partner is a rational person and has great capability of solving problems. I am good at finding problems. We will then look into these problems and discuss possible plans. Later, he will carry out these plans effectively.”

However, not all business partnerships brought pleasant experiences. Jack learned a hard lesson from his business partnership. When asked about his critical incident during the crisis of COVID-19 and the DRP, Jack reported being betrayed and taken advantage of by one of his business partners when he was at the lowest point of his business. This business partner seized a legal loophole in their contract and used it to sue Jack for compensation. Various emergent challenges had entangled Jack at that point, so he decided to pay a significant sum to this person

because of his own carelessness in reviewing the contract. It was a painful lesson for Jack: “I trusted him so I wasn’t careful enough when I signed the contract with him. The lesson I learned is respecting rules, no matter how much you trust someone. It is self-protection.”

In summary, the participants reported considering policies and relationships to be two other outstanding factors that helped or hindered their learning to think strategically. “Studying policies” refers to making sense of the ongoing Double Reduction Policy and studying the characteristics of the Chinese ways of governing. As for relationships, friendship, spouseship, and business partnership are the three types of relationships that supported the participants’ learning to think strategically. There were other factors that were mentioned by one or two participants, including technology, mood, and economic recession, but they were not as outstanding as policies and relationships. Therefore, the researcher did not categorize them as important findings.

### **Summary**

The current chapter presented four findings from the study. First, the participants perceived that the crisis of COVID-19 and the DRP had a negative impact on the tutoring industry at different levels, but it also served as a valuable learning opportunity for their personal growth and the long-term development of their company. Second, it was found that the participants developed their strategies at personal, organizational, and social levels. These three levels of strategies helped business entrepreneurs in the tutoring industry survive the crisis and thrive in the process of tackling the crisis. Third, it was found that the participants reported learning to think strategically from direct experiences of dealing with the crisis, indirect experiences from or with others or other organizations, and two thinking processes—systems



thinking and metaphorical thinking. Fourth, the participants reported that policies and relationships helped or hindered their learning to think strategically.

In the next chapter, the researcher analyzes and discusses the findings with reference to the study's conceptual framework, relevant literature, and data from the research. The analysis and discussion will set the stage for conclusions and recommendations for research and practice in the last chapter.

## Chapter 5: Analysis and Discussion

*I shall proceed from the simple to the complex. But in war more than in any other subject we must begin by looking at the nature of the whole; for here more than elsewhere the part and the whole must always be thought of together.*

— Carl von Clausewitz (1870-1831), Prussian strategist

### Overview

The purpose of this modified exploratory multicase study was to explore how leaders in the Chinese tutoring industry made sense of the crisis of the Pandemic and the Double Reduction Policy and learned to think strategically in a time of crisis through qualitative case studies. This study addressed the following four research questions:

1. How did the business leaders in tutoring companies make sense of the complexities of the crisis of COVID-19 and the Double Reduction Policy?
2. What strategies, if any, did the business leaders develop to adapt to the new environment?
3. In what ways, if at all, did the business leaders learn to think strategically while adapting to the new environment?
4. What other factors helped or hindered the business leaders' learning to think strategically in the crisis?

It was hoped that a better understanding of the Chinese business leaders' learning and strategic thinking process would shed light on the facilitation of business leaders' learning for strategic development in a time of crisis.

The research used naturalistic inquiry to collect qualitative data by conducting in-depth interviews and collecting supportive data through using critical incident questions in the interviews, a pre-interview survey, and a focus group discussion. Participants in the study included 12 current CEOs and founders, 2 mid-level business leaders, and 1 campus site principal of a large company. All of them came from tutoring companies in China. The data were coded, analyzed, and organized by research questions and then by categories and sub-categories guided by the conceptual frameworks in Chapter 2.

The previous chapter presented four findings from the study. First, the participants perceived that the crisis of COVID-19 and the DRP had a negative impact on the tutoring industry at different levels, but it also served as a valuable learning opportunity for their personal growth and the long-term development of their company. Second, it was found that the participants developed their strategies at personal, organizational, and social levels. These three levels of strategy helped business entrepreneurs in the tutoring industry survive the crisis and thrive in the process of tackling it. Third, it was found that the participants reported learning to think strategically from direct experiences dealing with the crisis, indirect experiences with or from others or other organizations, and two thinking processes—systems thinking and metaphorical thinking. Fourth, the participants reported that policies and relationships either helped or hindered their learning to think strategically.

This chapter analyzes, interprets, and synthesizes the findings. It is organized by first discussing the relationship between participants' perceptions of the crisis and their learning and their level of experience, positions, and gender. Then the researcher restates each of the four research questions, discusses the related findings that were presented in light of the literature on adult learning and implications for how these findings enriched the prospects of learning to think

strategically, and proposes a revised version of the original conceptual framework. Following the discussion of the interpretation of the findings, the researcher will revisit the four assumptions listed in Chapter 1. Last, a summary of the chapter is presented with a brief reflection on possible bias in interpreting the findings.

This chapter is organized according to the following three analytic categories:

1. The relationship between participants' level of experience, positions, and gender and the four findings from Chapter 4 (relating to Research Questions 1 to 4)
2. The relationship between the participants' strategies and their learning to think strategically (Research Questions 2 and 3)
3. The relationship between the participants' perception of the crisis and their learning to think strategically (Research Questions 1 and 3)

#### **Analytic Category 1**

*The relationship between participants' experience level, positions, and gender and the four findings from Chapter 4.*

The purpose of this analytic category is to explore whether there were any differences observed within the findings of the four research questions, respectively, that correlated with participants' genders, levels of experience in the education field, or level of organizational position attained. Since the researcher collected the data on their genders, levels of experience in the education field, and positions in their companies earliest through the pre-interview surveys, this analytic category is here placed first.

Participants in this study were required to have at least 10 years of experience in the educational field and hold a leadership position in the organizations in which they were working. Except for one person who had 9 years of experience, all the other participants reported having

10 or more years of experience in the educational field. Among the 15 participants, seven had 9 to 15 years of experience, and eight had 16 or more years of experience working in the education industry. In terms of gender, 10 were males and 5 were females. As for their positions, 2 people were mid-level managers while the other 13 were senior leaders, including founders or CEOs of their organizations and a principal of a single campus site. The following three tables (Table 5.1, 5.2, and 5.3) list the participants in two segments based on their genders, levels of experience, and positions.

**Table 5.1**

*Participants Segmented by Gender*

<b>Gender</b>	<b>Number of Participants (15)</b>	<b>Participants' Pseudonyms</b>
Male	10 (67%)	Andy, Tim, Leo, Jacob, Sam, Jim, Tom, Jack, Joe, and Chuck
Female	5 (33%)	Amy, May, Jackie, Ling, and Jane

**Table 5.2**

*Participants Segmented by Level of Experience*

<b>Experience Level</b>	<b>Number of Participants (15)</b>	<b>Participants' Pseudonyms</b>
9 years to 15 years	7 (47%)	Amy, Andy, May, Tim, Jackie, Leo, and Jacob
16 years or more	8 (53%)	Sam, Jim, Ling, Tom, Jack, Joe, Jane, and Chuck

**Table 5.3***Participants Segmented by Position*

<b>Position</b>	<b>Number of Participants (15)</b>	<b>Participants' Pseudonyms</b>
Senior Leader	13 (87%)	Andy, Tim, Jacob, Sam, Jim, Tom, Jack, Joe, May, Jackie, Ling, Jane, and Chuck
Mid-level Leader	2 (13%)	Amy and Leo

Table 5.4 presents the result of the analysis regarding whether participants' gender, level of experience, and position resulted in any observed distinction within the findings of each research question. Based on the analysis of the interview data, the researcher marked a "yes" in the box denoting a particular factor (e.g., gender) when there was an observed difference. Otherwise, the researcher marked a "no" in the relevant box. Detailed explanations are provided regarding what the difference was and how the researcher made sense of the differences.

**Table 5.4***Presence of Observed Differences Within the Findings of the Four Research Questions by Genders/Experience Level/Position*

<b>Findings of the Four Research Questions</b>	<b>Gender</b>	<b>Experience Level</b>	<b>Position</b>
<b>Finding 1:</b> The participants perceived that the crisis of COVID-19 and the DRP had a negative impact on the tutoring industry at different levels, but it also served as a valuable learning opportunity for their personal growth and the long-term development of their company.	No	Yes	No
<b>Finding 2:</b> The participants developed their strategies at personal, organizational, and social levels.	No	Yes	Yes

**Table 5.4** (continued)

<b>Findings of the Four Research Questions</b>	<b>Gender</b>	<b>Experience Level</b>	<b>Position</b>
<b>Finding 3:</b> The participants reported learning to think strategically from direct experiences of dealing with the crisis, indirect experiences from others or other organizations, and two thinking processes—systems thinking and metaphorical thinking.	No	No	Yes
<b>Finding 4:</b> The participants reported that policies and relationships helped or hindered their learning to think strategically.	Yes	No	Yes

### **Analytic Category 1.1: Understanding the Influence of Gender**

There were 10 males and 5 females among the 15 participants. It is worth noting that the participants were given the option, “other gender” in the pre-interview survey, but no one chose it. Regarding the two segments of gender, no clear distinction was observed between males and females in their perception of the crisis (Finding 1), their strategies to deal with the crisis (Finding 2), and their learning to think strategically in the crisis (Finding 3). However, there was a clear distinction between males and females in the types of relationships they cited as supportive in their strategy development and the learning processes. Four out of five female participants mentioned spousal support as a significant factor that helped their learning to think strategically.

In comparison, there was only one male out of ten male participants who mentioned spousal support. Meanwhile, six of the ten male business leaders reported friends and business partners as providing supportive relationships. It seems that the female participants in this study attached more importance to spousal support than did the male participants.

The spousal support literature provides some insights into the role of a husband in his female spouse's entrepreneurship. The societal expectation is for females to take more home and child-care responsibilities and being a female entrepreneur can exacerbate tensions between work and family roles (Cha, 2010). According to Kim and Ling (2001), when the wife runs an enterprise, her entrepreneurship may impact both the husband and the marriage. It may trigger conflicts against the long-held social expectations concerning family roles and obligations. However, entrepreneurship may open up an opportunity for the husband to play a supportive role. In their research, Nikina et al. (2015) found that explicitly acknowledging the inevitability of husbands' involvement in business at some level will help female entrepreneurs release some traditional family responsibilities and improve their psychological contract with their businesses. In other words, female entrepreneurs will feel safer spending more time and effort on their business with their husbands' support. The above reasons may explain why female participants in this study emphasized spousal support more than their male counterparts.

It is worth noting that the researcher analyzed the influence of subject-tutoring and non-subject-tutoring services on the business leaders' perception, strategies, and learning to think strategically but found no noticeable differences of influence between the two types of tutoring services. Therefore, the researcher did not include the discussion of the influence of subject-tutoring and non-subject-tutoring services in this analytic category.

### **Analytic Category 1.2: Understanding the Influence of Experience Level**

Different from gender, the analysis of the two segments of experience level revealed an observed distinction between the seven participants with less experience (10 to 15 years) and the eight with more experience (16 or more years) in the educational field. While their perceptions of the crisis (Finding 1) and of COVID-19 were similar, whereas their perceptions of the DRP



differed to some extent. The younger participants tended to have a negative attitude toward the DRP. On the other hand, four of the seven participants with 10 to 15 years of experience in education expressed a positive attitude toward the DRP in the long run. Among the participants with 16 years or more experience, seven of eight (88%) clearly articulated the benefit of the DRP for their personal growth, their company's development, and the long-term progress of Chinese education.

As for their strategies to deal with the crisis (Finding 2), the participants who had more experience in education tended to consider more options or strategies than those who had less experience. For example, four of the seven (57%) less experienced participants mentioned the strategy of focusing on the core problems of the challenge. The ratio among the more experienced participants was, however, seven out of eight (88%). Similar results appeared regarding almost all the critical strategies at the personal, organizational, and social levels. There was, though, a notable difference regarding the strategy of taking everyone's interest into account. Only two participants mentioned this strategy among the seven less experienced participants, while six of the eight (75%) more experienced participants mentioned this strategy. Among all the strategies, the less experienced participants (4/7; 57%) seemed to be a little better at cultivating an awareness of risks than the more experienced participants (4/8; 50%). (Note: because of the small sample size, observed differences are likely, at best, only marginally meaningful.)

In their article, *The Making of an Expert*, Ericsson et al. (2007) argue that experience is critical for achieving expertise because it allows learners to develop mental representations of their tasks. These mental representations enable learners to recognize patterns and make predictions, making them more efficient and effective in their domain, which may explain why

the participants who had 16 or more years of experience in education seemed to have more strategies and greater peace of mind when dealing with the crisis. Joe, who had been in the education industry for 38 years, suggested that young people needed to “change their mindset”:

If you stay in the industry long enough, and if you have experienced multiple crises, you will feel that this (the crisis) is normal. When Mao Zedong was in his most daunting period in Yan’an (a poor mountainous shelter village for the Communist Party of China), he wrote down his famous philosophy articulating how to win the war against the Japanese invaders; that is, “the more persistently we fight, the more likely we will win the war against the invaders.” Eventually, Mao won the war and founded modern China. We have much better circumstances today, so I always ask the young employees in my company to change their mentality. It is hard today, but be optimistic and persistent. If you see the positive sides of the crisis and keep doing the right things, you will have a different result.

Experience enables individuals to develop a more sophisticated mental model, recognizing and responding to complex situations more quickly and effectively than people with less experience (Ericsson et al., 2007). It may help shed light on the fact that only two out of the seven (29%) less experienced participants mentioned considering everyone’s interests. The number was six out of eight (75%) among the experienced group. However, this strategy is a social-level strategy, and it may take more time and personal reflection to develop.

It is worth noting that a sample of 15 participants may not be sufficient to determine that people with more experience in the tutoring industry tend to have more strategies than people with less experience. Besides, 13 of the 15 participants had 10 to 20 years of experience working in the education industry. On the other hand, only two had more than 21 years of experience in education. More experience may mean a better understanding of strategy or strategic thinking capability. Dewey (1933) reminds us that we do not learn from experience but from reflecting on experience. Therefore, simply having experience is not sufficient for learning to occur. Instead, individuals need to reflect critically (Mezirow, 1990), which involves becoming aware of one’s

assumptions and related actions, evaluating their accuracy and situational validity, and also considering alternative perspectives and interpretations.

Regarding their learning to think strategically (Finding 3) and other factors that influenced their learning for strategic development (Finding 4), there was no notable distinction between the participants who had more experience and those who had less experience based on the researcher's analysis. The analysis showed that the two groups shared a close preference for their learning to develop strategic capability. For example, five of the seven (71%) less experienced participants and six of the eight (75%) more experienced participants used quick and short-term reflection for strategic thinking development. Similarly, the less experienced group (5/7; 71%) and the more experienced group (6/8; 75%) participants shared a close number of people who attached importance to systems thinking.

Comparing the influence of experience level on participants' strategies (Finding 2) and their learning to think strategically (Finding 3), it seems that more experience in the industry does not necessarily mean better learning capabilities or more learning strategies to develop strategic thinking. Sloan (2020) argues that many business leaders may focus more on short-term goals and immediate results, rather than taking a long-term and strategic perspective. Learning to think strategically is, itself, a long-term strategy, so many business leaders do not intentionally learn to think strategically. Another possible reason is that the participants, regardless of their experience levels, were unaware of their learning practices while developing strategies to deal with the crisis. In the emergent view of strategy, learning to think strategically takes place over time as decision-making patterns become strategies (Mintzberg, 1994). Therefore, when the participants actively developed various strategies for the crisis, they were engaged in various unintentional learning practices to think strategically. However, when asked about their learning

practices, they were not conscious of this learning process, or, perhaps, did not have appropriate vocabulary to describe their learning practices.

### **Analytic Category 1.3: Understanding the Influence of Positions**

Among the 15 participants, only 2 were mid-level business leaders and the other 13 were senior leaders of the companies. Analysis of the influence of positions indicated that there is an observed distinction between the 2 mid-level managers and the 13 senior leaders in the strategies they employed (Finding 2) in their learning to think strategically (Finding 3), and other factors that influenced their learning to think strategically (Finding 4). However, there was not a clear distinction between the two groups regarding their perceptions of the crisis (Finding 1).

The most apparent distinction was in their capability to formulate strategies and make strategic decisions. Both participants, Amy and Leo, were mid-level managers at two big companies. Amy had 10 co-workers under her, while Leo led a team of around 120 co-workers. In a quantitative sense, it is not reasonable to compare the data of these two mid-level managers against the other 13 senior leaders. However, during the interviews with these two participants, they expressed a clear message that they were not major strategy makers; they were more strategy executors. Besides, they had limited power and freedom to make strategies for their team during the crisis for two reasons. One was the profound fear of stepping on the red line of the Double Reduction Policy. When asked what they did in new business explorations, Leo repeatedly emphasized that any new business would first follow the Double Reduction Policy requirements. Big companies did not want to be recognized as policy attackers. The other reason was a need for more company resources. According to Amy, many companies tended to reduce their business activities due to income loss and staff shortage. Therefore, mid-level managers were given fewer resources than before. During the interview, one of Amy's most frequently

cited phrases was “quiet quitting,” which meant “keeping the current business as it was and not having aggressive business objectives.” When asked for her strategies for the team, she focused more on her personal and passive goals:

I care more about my own physical and mental health, you know. As a mid-level manager, I need to secure my job and make a living for the time being. I do not have to be the best, nor will I be the worst. I will not take risks. Instead, I will make [only] conservative moves. I will support my boss, but when the team is going down, I have a plan B in my mind.

The fact that the mid-level managers were given fewer resources and less freedom to formulate their strategies also influenced their learning to think strategically in the crisis (Finding 3). Senior leaders had more opportunities to learn from formulating strategies, which differs from the experience of the two mid-level participants in this study. The two mid-level managers shared only one learning practice in this study: metaphorical thinking. Based on the interviews, Amy’s company did not allocate sufficient resources and space to mid-level managers to test out new business ideas. They were taking a defensive and conservative stance in dealing with the crisis. In contrast, Leo’s company actively explored new business ideas and learned extensively from competitors in the industry. Therefore, Leo emphasized the importance of “trial and error” and “learning from peers/competitors” in his interview.

Similarly, the lack of resources and freedom to develop strategies also influenced mid-level managers’ perception of other factors that influenced their learning to think strategically (Finding 4). Both participants mentioned policies as a critical factor influencing their thinking ability. Neither of them regarded relationships as a supportive factor, which was mentioned by 9 out of the 13 senior leaders.

## Summary

Participants' ability to develop strategies or their strategic thinking was influenced by a range of factors, including level of experience and position. As Rich Horwath (2014) argues, leaders' strategic thinking capability is influenced by the access to, and their ability to allocate resources, their business acumen, and relative freedom of action to execute business strategies. Being in the industry for longer years may give participants more business acumen, and serving as a senior leader may grant leaders more accessibility to resource allocation. The two young mid-level managers, Amy and Leo, had fewer than 12 years of work experience in the tutoring industry, which may have affected their strategic thinking and insights. Besides, their strategic thinking capability may have been further limited due to a shortage of both resources and staff available to mid-level managers.

However, the accumulation of experience and the accessibility to resource allocation do not necessarily improve strategic thinking capability. As Horwath (2014) states, what matters more is strategic insight or the ability to draw insights from phenomena and problems. In other words, leaders must dive deep into problems and see what is inside the problems. Horwath uses two criteria to evaluate leaders' strategic thinking capability—the impact of insights and the frequency with which they occur.

Gender differences may affect business leaders' consideration when making strategic decisions, but the fact that the participants in this study emphasized the importance of spousal support may have impaired the researchers' ability to evaluate the significance of gender on the cultivation of strategic thinking. Even if that were not the case, there were only five females in the study, a number clearly insufficient from which to draw meaningful generalizations concerning the influence of gender on development of strategic thinking capability.

In the next analytic category, the researcher discusses the participants' strategies and their learning to think strategically from different theorists' perspectives and explores how they developed their strategies and strategic thinking capability specifically in light of the literature.

### **Analytic Category 2**

*The relationship between the participants' strategies and their learning to think strategically.*

This section of analysis is divided into three parts:

1. Understanding the participants' strategies to tackle the crisis. The research begins by analyzing the six strategies as a whole using Mintzberg's *Strategic Thinking as Seeing model*, then explains the six strategies separately in light of the literature, and explores the relationship between the six strategies.
2. Understanding the participants' learning to think strategically. The researcher explains learning from direct experiences, indirect experiences, and two thinking processes, with theoretical support from different perspectives.
3. Understanding the relationship between the strategies and learning to think strategically. Using different theorists' models of strategic thinking or learning, the researcher explores the relationship between the participants' strategies and their learning to think strategically. To summarize, the researcher proposes a set of five attributes of strategic thinking in a crisis.

#### **Analytic Category 2.1: Understanding the Strategies employed to Tackle the Crisis**

Based on Finding 2, there were various strategies Chinese business leaders used to deal with the challenges of the crisis. These strategies were operated on three different levels:

- (1) At the personal level, the participants emphasized the importance of staying positive with a growth mindset and cultivating enhanced awareness of risks.
- (2) At the organizational level, the participants highlighted the strategy of focusing on the core problems of their challenge, reserving sufficient money for a crisis, and exploring other businesses.
- (3) At the social level, the participants considered various stakeholders' interests when making business decisions.

The following analysis explores these strategies in light of the literature on strategic thinking.

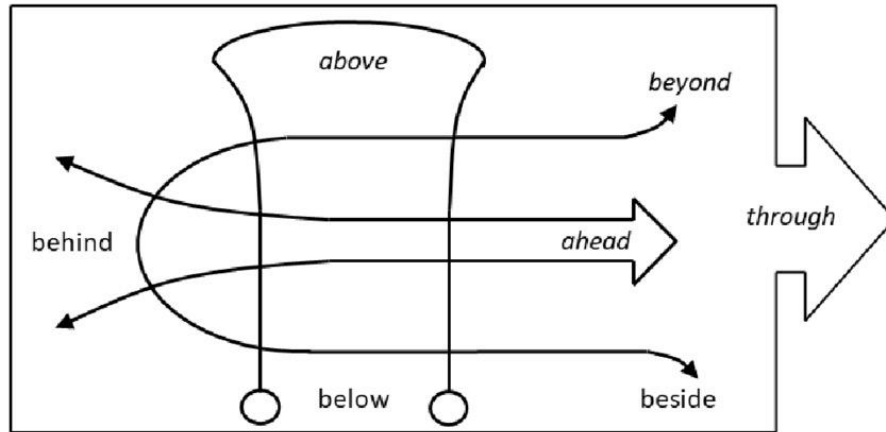
***Understanding the Strategies as a Whole on the Basis of Mintzberg's Strategic Thinking as Seeing Model***

Participants in this study appeared to formulate their strategies in an integrated and synthesizing process. As Mintzberg (1994) argues, strategic thinking is a synthesizing process where business leaders utilize not just experience and personal insights but also intuition and creativity from an integrated enterprise perspective. The three levels of strategies formed an overarching, integrated picture of their strategic decisions. A good strategy is formed with a comprehensive understanding of different dimensions of the environment. Mintzberg (2018) also suggests understanding strategic thinking by “seeing from different *angles* [emphasis, the researcher's].” In his opinion, Mintzberg argues that strategists will discover different aspects of a situation when seeing from different angles. The multiple angles will stimulate leaders to consider the complexities of a situation to different extents (Figure 5.1). Table 5.5 presents an interpretation of the strategies from Mintzberg's *Strategic Thinking as Seeing Model*.



**Figure 5.1**

*Mintzberg's (2018) Strategic Thinking as Seeing Model*



**Table 5.5**

*Mintzberg's Strategic Thinking as Seeing Model (2018) and the Study's Participants' Strategies*

Seeing Angle	Description	Strategies in the Study
Seeing ahead	See the future vision and predict what may happen in the future	<p>“<b>Cultivate an awareness of risks</b>” to be prepared for undesired situations.</p> <p>“<b>Reserve money for a crisis</b>” so that you won't be trapped in money shortage</p>
Seeing behind	See past events and draw valuable lessons from history	To some extent, <b>all the strategies</b> were formulated with the participants' past experience
Seeing above/beyond	See from the sky and have a bird's view of the event	<p>“<b>Take key stakeholders' interests in the strategies</b>” so that all the key stakeholders form a supportive network;</p> <p>“<b>Actively explore other businesses</b>” so that they may find potential and feasible businesses in the new environment.</p>
Seeing below	See closely and dig up details for more hidden information	“ <b>Focus on the core problems of challenges</b> ” to allocate the limited resources to the right goals.

Seeing besides	See what may be ignored or missed, and challenge conventional thinking	<b>“Actively explore other businesses”</b> so that they may find businesses or niches that others fail to see.
Seeing through	See the whole process, learn actively, and make changes accordingly	<b>“Stay positive with a growth mindset”</b> so that you can always learn from the process and make adaptation to the environment.

When discussing strategic thinking, we cannot avoid discussing the differences between strategic thinking and strategic planning. Scholars on strategic thinking (Mintzberg, 1994; Sloan, 2020) point out that strategic planning focuses more on rational analysis and linear processes with a plan as an outcome. Mintzberg (1994) rebukes the effectiveness of strategic planning in developing strategies because the technical nature and top-down approaches of strategic planning cannot address the complexity and ambiguity of the ever-changing environment. Instead, he emphasizes integrating analytical and intuitive approaches to strategy development. He advocates for a more organic, emergent approach to strategy based on experimentation, learning, and adaptation rather than a purely rational and linear approach.

***Strategy 1: Considering Key Stakeholders’ Interests***

The strategies of the participants in this study align with Mintzberg’s (1994) definition of strategic thinking. Rational analysis and linear processes are not emphasized in the strategies. Instead, divergent thoughts and strategic insights played a critical role in developing these strategies. Multiple perspectives are articulated in the strategy of taking different stakeholders’ interests into consideration when making strategies. The business leaders in this study considered different stakeholders’ perspectives, which drove them to make their commitments. For example, local officials in Tom’s and Jackie’s cities wanted to support the subject-tutoring companies to transition smoothly after the DRP. The fact that Tom and Jackie communicated with local

authorities regularly made the execution of their strategies more effective and smooth. Local authorities helped Jackie complete all the paperwork to pass legitimacy checks, and she saved a lot of trouble with their support.

### ***Strategy 2: Staying Positive with a Growth Mindset***

The use of learning and experimentation is seen in staying positive with a growth mindset and exploring other businesses. According to Carol Dweck (2006), a growth mindset is an approach to life in which an individual believes that their talents, intelligence, and abilities can be developed further. People with a growth mindset seek opportunities to learn, gain new skills, and enhance their existing skills. Dweck believes, although people may differ in their initial talents and aptitudes, interests, or temperaments, they can change and grow through application and experience. Similarly, Liedtka (1998) emphasizes that strategic thinking is a learning and developmental process, not a set of skills and knowledge. “[A] strategic thinker is a learner, not a knower” (p. 124). In this study, learning is one of the most distinctive patterns that the business leaders shared in developing their strategies. Learning itself may not serve as a strategy, but developing strategies cannot be separated from learning. When asked for her strategy, Jackie highlighted that a growth mindset was the crucial contributor to their survival:

My employees are people with a growth mindset. They are excited to learn new things. In other words, when there are new challenges or our competitors have new ideas, they (the employees) are happy to accept new ideas and challenges.

Jim also believed that strategic insights come from a learning mindset:

We believe in the power of belief, the power of accumulation, and the power of continuous growth. Then we also propose that at this uncertain time, the more you invest in life long learning, that is, lifelong growth and lifelong learning, the better you will be.

### ***Strategy 3: Exploring Other Businesses Actively***

Thirteen out of 15 participants reported actively exploring new businesses as their strategy in the crisis. Such exploration may keep business leaders aware of emerging trends in

the economy and the industry and cultivate a global perspective (Sullivan, 2016). By actively exploring other businesses during a time of crisis, they met people from different fields, visited other companies for successful experiences, tested out business models, learned from relatively light-invested programs, and gained valuable insights into new projects. May, the CEO and founder whose expertise was in education and media, shared her experience exploring the “silver hair economy.” The market for older people in China is expanding yearly as the population ages.

Active exploration does not always bring new insights and development in a crisis, but crucial insight and growth usually stem from active exploration. As Olson and Simerson (2015) argue, when a crisis happens, disruptive changes require new insights from leaders with a strategic mindset to adapt to the new environment faster than their competitors. Sam, the CEO and founder of a 300-person English tutoring company, shared his idea that time is a limited resource when a massive crisis happens.

Using Mintzberg’s (2018) Strategic Thinking as Seeing Model, active exploration of other businesses will give business leaders a perspective of seeing above, which enables them to test out potential business ideas and make timely decisions quickly. Meanwhile, this big-picture perspective may help a company avoid significant problems and conflicts by connecting the dots and seeing businesses’ interrelationships (Sullivan, 2016). For example, after Chuck and his team actively explored tutoring businesses focused on painting and physical education for teenagers, they gave up these two potential business ideas because they did not have established expertise or facilities to offer high-quality services.

However, actively exploring other businesses does not mean spending resources evenly on all viable businesses or spreading limited resources over too many options. Instead, it is a process of choosing what leaders should and should not do. It is also a process of finding the

business's focus and giving up the less important options. Carucci (2016) argues, it is at the point of making choices that a business leader's ability to be strategic is tested.

#### ***Strategy 4: Focusing on the Core Problems***

With active explorations of other businesses, it was easier for leaders to find a few focuses of their business or focus on the core problems of challenges, another strategy frequently mentioned by the participants (11/15). The failure to focus on a few strategies contributes to the failure to execute the strategies (Carucci, 2016). Horwath (2014) found that 44% of managers spent most of their time reacting to and dealing with emergent challenges. Nearly all leaders (96%) claimed that they lacked time because they were too busy putting out fires. This is common in a crisis when various challenges emerge simultaneously. Therefore, Pietersen (2010) suggests that leaders maintain a clear and disciplined focus on the most important strategic priorities in a complex and fast-changing environment.

Eleven out of the 15 participants highlighted the significance of focusing on the core problems of challenges. Different business leaders may have different understandings of a business focus. For example, some may understand it as a successful operation of short-term tasks, others as building a long-term system and cultivating leadership traits, and others prioritize constructing a risk-taking culture. However, as Hanford (1995) puts it, strategic thinking differs from day-to-day management thinking, which is referred to as operational thinking; it aims for longer-term edges, takes a broader view, and focuses on high-level and critical issues. From this perspective, strategies could be defined only by practices focusing on long-term, high-level, and evolving factors. Table 5.6 presents the participants' strategies focusing on long-term, high-level, and evolving factors.

**Table 5.6***Description of the Participants' Strategic Focus*

<b>Participant</b>	<b>Nature of the Strategic Focus</b>	<b>Description</b>
Sam	Risk control and human desire control	Leaders need to focus on controlling the risks and their greed. Some leaders fail to control their greed, which leads to the company's financial problems.
Amy	Building long-term competition edge	Focus on core business competition edge and positioning, instead of marketing.
Jim	Accumulating a long-term value for students	What stays unchanged in a changing world is constantly creating a long-term value for students, e.g., improving their capabilities for happiness and life learning
Ling	Focus on the key few things in tutoring	Spend money on the few right things: building the team, research and development, and customer service.
Andy	Focus on the basics of a business	Ask yourself: Are your skills solid? Is your structure healthy? Are the products well designed?
Jane	Focus on the essence of language and business	Design teaching based on the essence of language learning: deliberate practice with students as the center; Redesign the business model with four core elements: teaching, quality control, finance, and services.
Chuck	Study the root cause of the problems; Improve core competencies as a leader	Look into the problems and seek the root problem: financial problems? Human problems? Teaching? Or land problems? As a manager, improve your conceptual thinking and reflective ability.
Jacob	Be down-to-earth to the reality	Be down-to-earth to not only your business but also the reality of China; Study the Chinese ways of governing and economic development
Tom	Build trustful relationships with key stakeholders	Communicate frequently with key stakeholders (parents, employees, landlords, officials) to convey his vision

As we can see from Table 5.6, different participants had different context focuses. From Pietersen's (2010) perspective, focus involves making tough choices about allocating resources, time, and attention. It requires a deep understanding of what matters most to the business and the ability to communicate that vision clearly to all stakeholders. However, as we look closer, we may realize that some practices still require their day-to-day execution and regular checks though they focus on long-term transformation and improvement. For example, Jane focused on redesigning the business structure over time, but she needed to regularly test to see if the new model worked. Only by doing so was she able to judge whether her strategic focus was practical.

### ***Strategies 5 and 6: Reserving Money for Crises and Cultivating an Awareness of Risks***

These two strategies have relatively clear objectives in the process of implementation. They require that business leaders and their companies maintain these practices and principles consistently. They were drawn from the participants' personal experience and observation, especially in this crisis. Many business leaders went bankrupt because of a shortage of money, and reserving money was one of the most critical objectives gained when failure by others enhanced business leaders' awareness of heightened business risks from the crisis. In the next section, the researcher will explain the relationship between these and the other strategies.

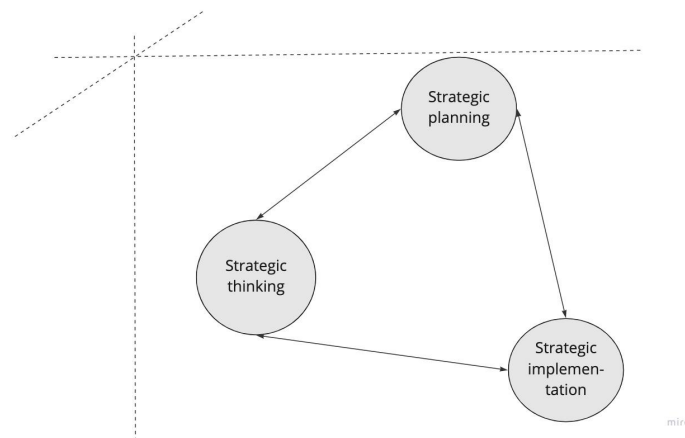
### ***Understanding the Relationship between the Strategies***

Sloan's (2020) Triad Model of Strategy (Figure 5.2) sheds light on our understanding of the relationships between these strategies and their roles in the whole strategy process. This model indicates that strategic thinking, strategic planning, and strategic implementation are integrated as part of the whole strategic process. The three parts are highly dynamic and interactive, not static or invariable. They are also iterative as careful review and course correction after implementation continuously strengthens the process. In other words, at a given

time in a specific context, one part may play a leading role. For example, implementation will lead after the strategic plan is discussed and tested.

## Figure 5.2

*The Sloan Triad Model of Strategy (2020)*



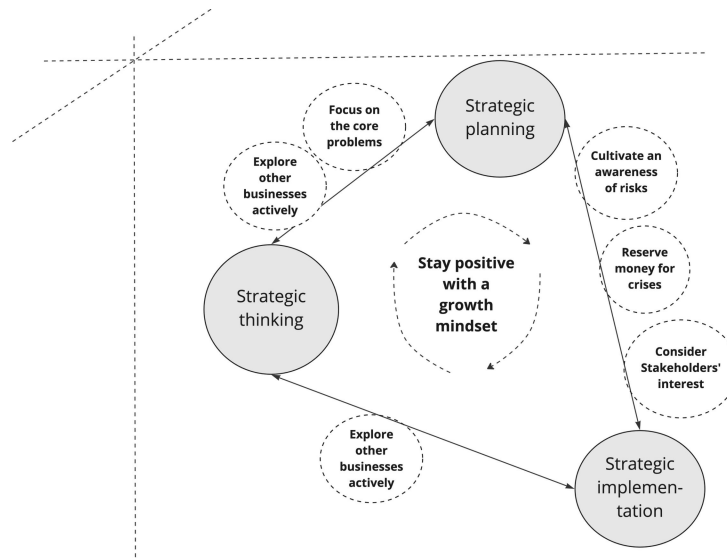
Based on Sloan's (2020) description, strategic thinking is a divergent, non-linear, iterative, and highly intuitive process where business leaders suspend existing assumptions, identify real strategic problems, and propose tentative solutions. In contrast, strategic planning is a rational, linear, logical, and analytic process where business leaders eliminate tensions through resolution and move toward a solution with an explicit aim and reductionist approaches. Finally, strategic implementation is also a rational and logical process where business leaders aim to align with a delineated strategic plan that has been rigorously tested and challenged through strategic thinking.

From Sloan's Triad Model of Strategy, we may gain a broader perspective of the role of different strategies in this study. Figure 5.3 presents a tentative relationship between the six strategies in this study and the Sloan Triad Model of Strategy.



**Figure 5.3**

*Understanding Strategies on The Sloan Triad Model of Strategy (2020)*



In Figure 5.3, the Sloan Triad Model—particularized by specific examples from Chinese business leaders’ own strategies—indicates that focusing on the core problems of challenges tends to be a link between strategic thinking and strategic planning. It is a critical step that combines rational analysis, subjective insights, bold intuition, and imagination. As for the three strategies—cultivating an awareness of risks, reserving money for crises, and considering key stakeholders’ interests—they have a relatively clear aim, and the key lies in implementing these strategies persistently. Therefore, they are placed between strategic planning and strategic implementation. The result of actively exploring other businesses will give business leaders valuable insights and feedback for new strategy formulation, so it is placed between strategic implementation and strategic thinking. All these strategies require a growth mindset and a “never-say-never spirit” (Jane), so staying positive with a growth mindset is centered in the heart of the Triad process.

In summary, strategies and strategic thinking are connected but differ in three aspects. First, strategic thinking is a part of the whole strategy process and aims at finding strategic focuses and developing valuable and insightful strategies. Strategies focus on achieving a particular goal or a set of goals. They also require the strategic planning and implementation processes to examine if the strategies are effective and practical. Second, in Mintzberg's (1994) emergent school of strategies, strategic thinking is a synthesizing process where rational analysis, creativity, intuition, and imagination are used to draw out effective strategies. Some effective strategies may come from business leaders' observations and personal experiences to help them survive difficult times. As illustrated in Figure 5.2 in this study, reserving sufficient money for crises and cultivating an awareness of risks are such strategies. Third, strategic thinking often takes a longer-term perspective, considering trends and developments that may affect the organization, while strategies may be developed for the short, medium, as well as long term. Business leaders tend to think more of short- and medium-term strategies in a crisis because needs for problems solutions are often near-term or immediate.

### **Analytic Category 2.2: Understanding the Learning to Think Strategically**

In this study, the participants reported learning to think strategically from direct experience, indirect experience, and two thinking processes. Specifically, the participants reported learning from direct experience dealing with the crisis, especially from reflection and trial and error. The participants also reported learning from indirect but relevant experiences in the crisis. Last, the participants reported learning to think strategically from systems thinking and metaphorical thinking. The following section explains how these learning practices and patterns can be understood on the basis of adult learning theories.

### ***Learning Category 1: Learning from Direct Experiences***

When sharing their learning from direct experience in the crisis, the participants emphasized two learning practices in this study: trial and error and reflection. Reflection can be sub-categorized as short-term reflection and critical reflection. These two learning practices resemble Kolb's (2014) learning cycle: trial and error echoes concrete experience and active experimentation, while regular and critical reflection resonates with reflective observation and abstract conceptualization. However, there is one significant difference between learning to think strategically and Kolb's learning cycle. Learning to think strategically is a non-linear, intuitive, and even irrational learning process (Liedtka, 1998; Mintzberg, 1994; Sloan, 2020), but Kolb's four-step cycle is a linear and rational learning theory. The most significant implication of Kolb's Learning Cycle is to treat every trial-and-error experience as a valuable source for experiential learning, reflect on the experience, and draw valuable insights and patterns for the next round of the trial-and-error.

There were two types of reflection in this study. The first type was regular reflection; participants reflected frequently and regularly during the crisis. In light of Schön's (1984) theory, regular reflection can be seen as an integration of reflection-in-action and reflection-on-action. Reflection-in-action refers to active evaluation of thoughts, actions, and practices during an event. It also refers to "thinking on one's feet" while performing one's profession (Schön, 1984). Reflection-in-action also means exploring professional beliefs, practices, and experiences during the action (Iqbal, 2017). It is used by professionals who need to make quick decisions or solve complex problems on the fly, such as doctors, emergency responders, and business leaders in a crisis (Schön, 1984). It is different from reflection-on-action. Reflection-on-action involves

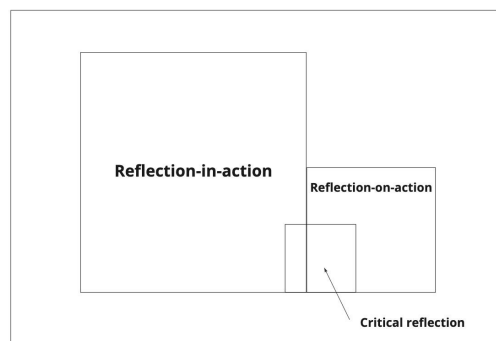
reflecting on one's actions and decisions, looking back on what happened and analyzing what worked well and what could be improved so that future action will be improved.

Besides regular reflection, the other type of reflection is critical reflection. Brookfield (2017) describes critical reflection as “the process of exploring and assessing one's assumptions, values, beliefs, and actions with the goal of gaining deeper understanding and insight” (p. 1). He emphasizes recognizing and challenging power dynamics and social inequalities in critical reflection. Mezirow (1998) defines critical thinking as a process of questioning and examining assumptions, beliefs, and values that underlie our thoughts, actions, and behaviors. It involves reflecting on our experiences, considering alternative perspectives, and identifying the bias and limitations of our own perspectives. This process helps us modify “our frames of reference”—frameworks we use to see the world and ourselves and promote personal growth and development.

Figure 5.4 presents the relationship between reflection-in-action, reflection-on-action, and critical reflection. Table 5.7 applies the concepts of reflection-in-action, reflection-on-action, and critical reflection to the context of the Chinese business leaders and offers examples from participants in the study.

**Figure 5.4**

*The Relationship between Participants' Reflection-in-Action, Reflection-on-Action, and Critical Reflection Practice in this Study*



**Table 5.7**

*Reflection-in-Action, Reflection-on-Action, and Critical Reflection in Chinese Business Leaders' Learning to Think Strategically in a Crisis*

<b>Type of Reflection</b>	<b>Application to Participants' Context</b>	<b>Examples Cited by Participants</b>
Reflection-in-action	Analyzing and modifying a strategy or an action while he or she is actively solving a problem caused by the crisis	“When I was teaching my 6-year-old son and his nanny basic English, I realized that my company textbooks failed me, so I began compiling Flywheel Talk. After I finished teaching them, I compiled six books of Flywheel Talk” (Jane).
Reflection-on-action	Analyzing and modifying a strategy or an action after it has been carried out to solve a problem or task in response to the crisis	“If I were to do it again, I would persuade the board not to announce the decision in a hurry. I would tell my business partner, we need to deal with it in a Chinese way, the Golden Mean Way—wait for the best timing” (Jim).
Critical reflection	Examine and modify one's assumptions, beliefs, and values that influenced one's strategy or action in response to the crisis	“During the crisis, some opportunities were wasted, because I was too obsessed with some of my previous fixed practices. But for the crisis, I would have stayed in my comfort zone and repeated the same old nonsense. The crisis pushed me out of my comfort zone” (Chuck).

From Figure 5.4 and Table 5.7, we can see that the participants in this study exercised more reflection-in-action and relatively less reflection-on-action. In contrast, critical reflection was relatively less used because it led to modifying or changing one's pre-existing assumptions and mental models. Understandably, reflection-in-action played a more significant role in the Pandemic because the emergent situations required business leaders to make decisions and react efficiently. In addition, reflection-in-action allows people to use an improvised method while they decide what works best for that unique situation rather than using preconceived ideas about what they should do on the spot (CAIE, 2023).

Reflection-on-action occurs when the participants have personal reflection practices, such as writing a journal or group reflection. For example, Andy shared his experience writing weekly journals where he reflected on what he did successfully and what needed improvement. Jane

shared her nonverbal way of reflection: “I love jogging because it gives me a length of quiet time for reflection. So many great ideas came from my reflections during jogging.”

Critical reflection may happen during reflection-in-action and reflection-on-action. Mezirow (1990) argues that critical reflection on “disorienting dilemmas” or life-changing difficulties may contribute to transformative learning, enabling learners to modify or change their frames of reference and thus behaviors. The crisis created “disorienting dilemmas” for many participants in this study and changed their ways of thinking to various extents. Andy, Ling, and Jack shared a similar discovery, that is, humbleness is a survival skill for a business owner:

I thought I was very successful and exceptional before the Pandemic. During the Pandemic, many successful companies went bankrupt, and many business partners left. I realized that you need to be humble as a business owner. It is a survival skill. You still have a long way to learn and grow. (Ling)

Some participants changed their perspectives or philosophy of education during the crisis. Chuck examined his previous assumptions about education and stopped repeating “the same old correct nonsense” after the crisis. Sam was made to believe that entire online education is possible for adult English learners. Before the Pandemic, Sam’s company ran in an in-person-only mode. Jack believed that the crisis brought him a broader perspective on life and career: “If I can endure this (the crisis), I can endure other difficulties in life and work, too.”

Figure 5.4 above shows that reflection-on-action was more likely to generate critical reflection. The participants reported gaining critical insights when recalling painful experiences during the Pandemic. The experiences generally comprised a series of events rather than a single one. As Sloan (2020) states, critical reflection is the primary tool for shattering frames of reference, a process that serious strategists must master. She adds that it is a deliberate and essential process involving more than cognitive skills. In the interviews, some participants

appeared calmer and more mindful when sharing their most valuable insights from the crisis. For example, when sharing his critical incident where his friend and business partner was arrested due to this friend's financial problem, Jim was regretful but calm:

In China, you have to follow the Chinese way, the Golden Mean way. Don't be the first to run to the front, especially when a big crisis happens. You need to wait and see. Otherwise, you might be the scapegoat. It was a painful lesson for me and my friend.

The other learning practice from direct experience is trial and error, which will be explained under the informal learning theory in the next section.

### ***Learning Category 2: Learning from Indirect Experiences***

Twelve of the 15 participants reported learning from different indirect experiences, including learning from their past experience, case studies, peers and competitors, ancient Chinese sages, and even foreign entrepreneurs. As explained in the previous analytic category, strategic thinking is non-linear, a-rational, and creative, and does not occur within a prescribed time and place. Drawing from the interviews with the business leaders in the tutoring industry during the crisis, the researcher found that business leaders learned to think strategically informally. In the interviews, learning was generally not the first concept the business leaders used to describe their crisis tackling. However, as Sloan (2020) suggests, learning must be the foundation of strategic thinking if leaders want to develop innovative, competitive, adaptive, and sustainable capabilities within their organizations. Many participants learned in informal or incidental ways during the crisis.

Marsick and Watkins (1990/2015) define informal learning as learning that is “predominantly experiential and non-institutional, non-routine, and often tacit” (p. 7). Based on Marsick and Volpe's (1999) research, informal learning cannot be fully programmed or planned. It usually arises spontaneously in the context of people following their interests or passion. Learners may or may not be aware of their learning practices when they take place.

Marsick and Watkins (1990/2015) state that informal learning can be sub-categorized into two types of learning based on the level of intentionality and awareness: intentional learning and incidental learning. Schugurensky’s (2010) research divides informal learning into three types: self-directed learning, incidental learning, and socialization based on a learner’s level of intentionality and awareness. Socialization is the internalization of values, attitudes, behaviors, skills, etc., that occurs daily.

Adapted from Marsick and Watkins’ model (1990/2015) and Schugurensky’s model (2000), the researcher used three types of informal learning—intentional learning, incidental learning, and socialization—to understand participants’ examples of informal learning practices, as shown in Table 5.8. It is worth noting that socialization cannot be separated from intentional and incidental learning. For example, when learners intentionally attend a training program, they may learn something new without a clear intention or awareness from their interaction with peers. Therefore, it is reasonable to treat socialization as part of intentional and incidental learning but “officially” categorize it separately.

**Table 5.8**

*Three Types of Informal Learning within the Chinese Business Leaders*

Form of Informal Learning	Intentionality	Awareness	Example
Intentional learning	Yes	Yes	<ul style="list-style-type: none"> <li>➤ Visiting successful companies</li> <li>➤ Observing peers’ examples</li> <li>➤ Writing journals</li> <li>➤ Case studies of failures</li> <li>➤ Feedback</li> <li>➤ Consulting experts</li> <li>➤ Trials and errors</li> <li>➤ Coaching</li> <li>➤ Taking online courses</li> </ul>



Incidental learning	No	Yes	<ul style="list-style-type: none"> <li>➤ Peer talk</li> <li>➤ Communicating with stakeholders (e.g., parents)</li> <li>➤ Random Zoom meetings featuring experts' talk</li> <li>➤ Work feedback</li> <li>➤ Extensive reading</li> </ul>
Socialization	No	No	<ul style="list-style-type: none"> <li>➤ WeChat group conversations</li> <li>➤ Everyday work meetings</li> <li>➤ Online networking</li> <li>➤ News and social media info</li> <li>➤ Meditation and mindfulness</li> </ul>

The table above covers most participants' informal practices in learning to think strategically during the crisis. Surprisingly, not one participant mentioned formal learning practices such as attending formal courses at school. It may be because the crisis did not allow the participants sufficient time to solve the problems in that way. They had to tackle emerging problems in an efficient and timely manner. Informal learning is more efficient and flexible in a time of crisis. Another reason was the restriction of human interaction during the Pandemic. However, several participants reported taking online courses from popular adult learning platforms in China, which was another example of intentional learning.

Among all the informal learning, trial and error was one of this study's most cited learning practices. Based on their extensive review of dissertation studies identifying patterns of informal learning methods, Marsick et al. (2006) found that trial and error (also referred to as learning from mistakes or experience) was by far the most often cited. The same research also found that the ability to critically reflect on one's own experience and mental models during the study period enhanced learning. The data of this study testified to these two findings.

***Learning Category 3: Learning from Two Thinking Processes***

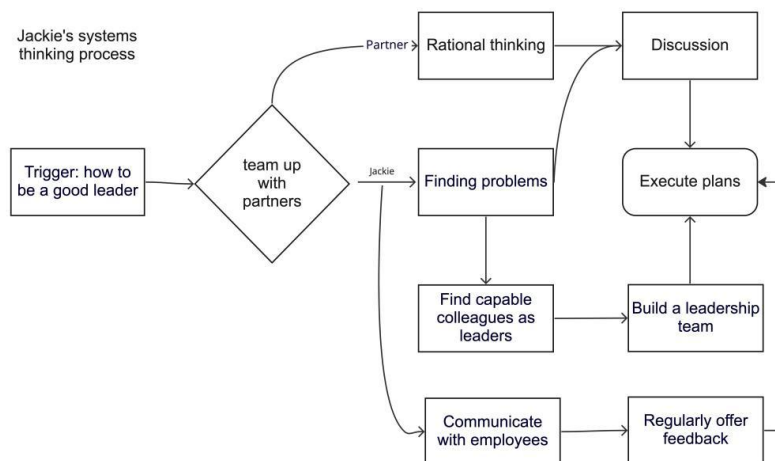
The participants emphasized two types of thinking—systems thinking and metaphorical thinking—in their learning process to think strategically.

System(s) thinking, according to Liedtka (1998), is a mental model of the complete end-to-end system of value creation and understanding of the interdependencies between the internal and external world. Peter Senge (1997) argues that systems thinking is a way of thinking about and understanding complex systems in the world and involves seeing the world as a set of interconnected systems rather than a collection of isolated parts.

Faced with complexities and uncertainties caused by the crisis of COVID-19 and the Double Reduction Policy, systems thinking reminds us to study not just different parts but also the whole system combined. Figure 5.5 shows how Jackie tackled her problem of being a good leader using systems thinking. With systems thinking, Jackie understood the relationship and feedback loops between different elements of her systems and adjusted her leadership practices based on the interconnectedness and influence of different elements on each other.

**Figure 5.5**

*Jackie’s Systems Thinking Process to Tackle Her Challenge of Being a Good Leader*

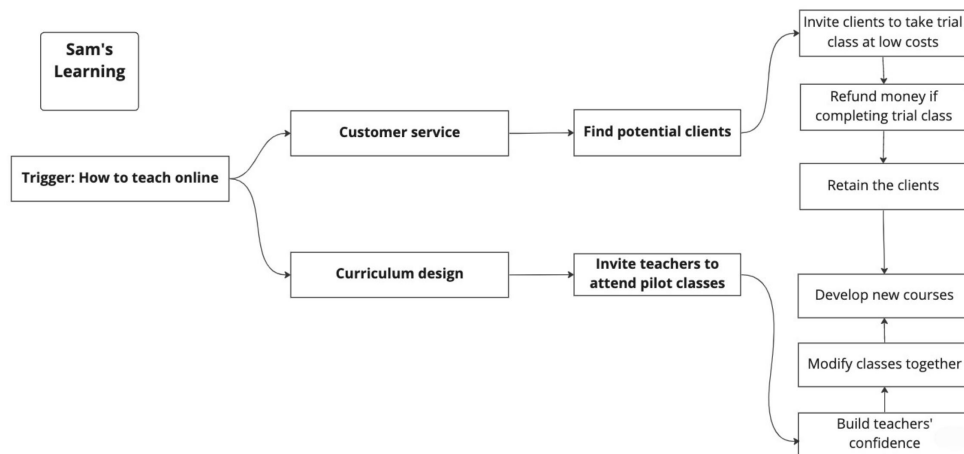


In order to learn to be a good leader and form an effective team, Jackie actively teamed up with her partners and developed capable employees to be mid-level managers. In addition, she tried to connect all her activities into a system, instead of treating every task or every person separately, which supported her leadership development and the formation of her leadership team.

Together with synthesis, systems thinking allows leaders to connect the dots and foresee a bigger picture, understand the situations holistically, and make decisions with profound and all-encompassing considerations (Bowman-Farrell, 2019). This bigger picture brings business leaders insights and clarity to solve current problems and strengthens their confidence to thrive in future competition. For example, Figure 5.6 shows how Sam solved the problem of designing a new curriculum, training teachers, and attracting online students when they shifted to an entirely online teaching mode. After Sam gave his team a clear picture of what to do at the beginning of the Pandemic, he and his team solved the two major challenges, attracting new students and designing a new curriculum, more smoothly than he had imagined. It all contributed to a successful transition.

**Figure 5.6**

*Sam's Systems Thinking Process when Shifting the Company to an Online Mode*



The other thinking process is metaphorical thinking. Metaphorical thinking is a mental process in which comparisons are made between objects' qualities, usually considered separate classifications. It connects two universes of meaning and results from the mind looking for similarities (Cuofano, 2022). Metaphorical thinking unearths the hidden connections between problems, objects, or situations creatively or poetically. In her research, Sloan (2020) also found that the use of metaphors was a consistent theme in the studies of how successful strategists learn to think strategically: “Executives repeatedly described their strategic problem as a complex conceptual metaphor, sometimes in the form of a parable, a fable, or an allegory” (p.66).

Table 5.9 presents some of the metaphors used to describe the participants’ situation or insights.

**Table 5.9**  
*Some Participants’ Use of Metaphors and Their Implication*

Participant	Example of Metaphor	Implication
Jackie	“A child born in a famine year”	Jackie described spending money and great effort setting up a new campus right before COVID happened. However, she was determined to raise this “child.”
Jane	“The operation of your organization is just like the functioning of a human body.”	Jane wanted to emphasize the overall health of a business or an organization. Leaders should consider the good functioning of different sections of an organization.
Andy	“Be the Spring, don’t just be a flower.”	Andy highlighted the ability to endure hardship in crises. “To be the Spring” brings you resilience after the cold winter; you also attract different flowers in your platform. However, if you are a flower, you wither and never come to life again.

Besides metaphors, analogies were another tool that the business leaders used in their learning experience to think strategically. Analogies are not the same as metaphors. Altair (2022, Sep 6) compares the difference between the two:

A metaphor is a visual shorthand that plays on the reader’s senses through sounds, images, scents, tastes, images, and touch to make an idea accessible. An analogy works by creating a logical argument comparing two things to make a point. Unlike the poetic figure of speech in a metaphor which lets one thing stand for another figuratively, an analogy aims to explain something.

Both metaphors and analogies create vivid images to illustrate the key learning highlights. They are also accommodating in explaining how people see and understand the world from different and creative perspectives. Table 5.10 presents some of the participants’ analogies to describe their situation or insights during the crisis.

**Table 5.10**  
*Some Participants’ Use of Analogies and Their Implication*

Participant	Example of Analogies	Implication
Sam	“Leaves grow in rainy seasons, while roots grow in dry seasons.”	Sam emphasized the potential benefits a crisis brings to a company. It helps a company to develop in an invisible and profound way.
Tim	“If you lose a battle, run away in the direction with fewer enemies.”	The last strategy in Sun Tzu’s <i>The Art of War</i> is running away if you lose the battle. Tim wanted to emphasize the importance of being alive and quick reaction in crises.
Jim	“In Taoism, when Yin goes to an extreme, Yang begins.”	Jim believed that the tutoring industry and China would develop fast after the crisis, based on the core ideas of Taoism.

Jacob	“You need to study the strategy of the head office, including what the head office's chairman, CEO, and shareholders think, and also consider the external environment they face.”	Jacob thought people become emotional and irrational when they discuss politics. He suggested comparing the Chinese government to an international company, which may help us better understand their stance and policies, for example, the DRP.
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It is fascinating to see how these Chinese business leaders made extensive use of metaphors and analogies as a means by which they learned to think strategically. The fact that China has a long history and uses a language of characters may explain why these business leaders naturally and sometimes unconsciously used so many vivid metaphors and analogies in their interviews. The long Chinese history has left valuable legacies and learning memories in our everyday life.

The Chinese characters not only train Chinese people with image-related thinking, but also keep the Chinese culture and history in brief words. Most Chinese people can retell or recite tens or even hundreds of Chinese poems, stories, and quotes from people hundreds or thousands of years ago. These poems, stories, images, and quotes influence Chinese business leaders’ ways of thinking. For example, Chinese characters form people’s habit of envisioning images and metaphors in their thinking and communication. As a result, the use of metaphors and images is common in Chinese business management, negotiation, and communication (Yang, 2015).

### **Analytic Category 2.3: Understanding the Relationship between Strategies and Learning to Think Strategically**

This study discussed both strategies and the learning to think strategically. What is the relationship between the participants' strategies and their learning to think strategically in a time of crisis?

First of all, strategies and learning to think strategically interact positively with each other in a crisis. As Olson and Simerson (2015) argue, strategic thinking is critical in a crisis as disruptive changes require new insights from leaders with a strategic mindset. Sloan (2020) adds that strategic thinking is one necessary and fundamental cognitive ability leaders need to survive and thrive in an uncertain environment. On the other hand, strategy formation provides leaders with multiple opportunities to learn in an ambiguous, complex, and volatile environment. As a result, it may improve their strategic thinking capability, which may benefit the business leaders for a lifetime.

Second, the formulation of strategies stems from various types of support besides learning, including analytic skills, business acumen, resources and the ability to allocate resources, support systems, and a sound and healthy state of mind. However, learning to think strategically may be the most cost-effective way to come up with valuable and context-sensitive strategies in a crisis for business leaders, especially those with limited funding, human capital, and other resources. For example, business leaders like Tim and Jackie had fewer than 10 employees and what they could best respond to the crisis was to quickly learn, observe, reflect, and formulate suitable strategies for their small companies.

Third, based on our discussion of the strategies and the illustration of the Sloan Triad of Strategy (2020) (see Figure 5.3), different strategies have different emphases in the strategy process. Some strategies used by the participants in this study fall in the strategic planning or

strategic implementation stage, including cultivating an awareness of risks, reserving money for crises, and considering all stakeholders' interests. They emphasized the planning and implementation stages. The other three highlighted the formulation stage or the development of strategic insights, including staying positive with a growth mindset, focusing on the core problems of the challenges, and exploring other businesses.

Fourth, after exploring the participants' strategies and their learning to think strategically, the researcher realized that the strategies are very concrete. At the same time, the theories of learning to think strategically may be too theoretical. If Chinese business leaders from other fields were to learn from these findings, how could they learn the fundamental lessons? Inspired by Liedtka (1998), Pietersen (2010), and Sloan (2020), the researcher proposes a set of five attributes of strategic thinking in a time of crisis. Table 5.11 presents these attributes or critical steps derived from the three theories (Liedtka, 1998; Pietersen, 2010; Sloan, 2010), and the researcher's set of five attributes of strategic thinking is presented in Table 5.12.



**Table 5.11***Three Theorists' Competency Model or Attributes of Strategic Thinking*

Liedtka's(1998) Five Elements of Strategic Thinking	Sloan's (2020) five personal attributes critical to strategic thinking	Pietersen's (2002) "five killer competencies" in his Strategic Learning Cycle
<b>1. A systematic perspective:</b> Understanding of the interdependencies between the internal and external world	<b>1. A broad perspective:</b> Broad perspectives from interaction and insights help thinkers challenge their own frameworks.	<b>1. Learn:</b> To learn about the situations, analyze them and get insights from the analysis
<b>2. Intent-focus:</b> Focused on a worthwhile long-term market or competitive position	<b>2. Having an imagination:</b> See beyond daily practice and routine and imagine innovative solutions	<b>2. Focus:</b> To focus on the critical areas or priorities of an organization
<b>3. Intelligent opportunism:</b> An intention to discover new opportunities and draw new insights	<b>3. Juggling between tasks and challenges:</b> An ability to see and to work with opposing relations and paradoxes	<b>3. Align:</b> To align priority and winning propositions with the company/learner's resources, structure, and culture
<b>4. Thinking in time:</b> An ability to connect the past, present and the future	<b>4. No control over:</b> An awareness to prepare for the unknown and unexpected	<b>4. Execute:</b> To execute an action plan based on previous alignments
<b>5. Hypothesis driven:</b> Developing hypotheses and testing them in a changing world	<b>5. A strong desire to win:</b> Having a strong desire to win in a competitive environment	<b>5. Renew:</b> To renew the cycle for sustainable advantages

Interestingly, the three theorists, themselves, all devise five factors or five steps to cultivate strategic thinking capability. What lies as a major difference is the linearity of the models. Pietersen's (2010) model is a linear one to some extent; the first four steps form a close and renewing loop. Liedtka's five factors and Sloan's five attributes are non-linear and combine

rationality (e.g., hypothesis driven) and a-rationality (e.g., imagination), considering different people’s learning and thinking preferences (Sloan, 2020).

**Table 5.12**

*A Modified Model of Strategic Thinking Attributes in a Time of Crisis*

Attribute	Description	Example of Learning Practices
<b>1. A strong growth mindset</b>	Believing in the power of learning and being ready to learn from any experience in the crisis	<ul style="list-style-type: none"> <li>➤ Learn from different sources about a crisis: news, peer experience, case studies, etc.</li> <li>➤ Learn from your emotions even when they painful</li> </ul>
<b>2. A balance between focuses and possibilities</b>	Understanding the importance of being focused with limited resources while exploring sustainable opportunities for survival—traditional Chinese wisdom of “Yin and Yang”	<ul style="list-style-type: none"> <li>➤ Explore different opportunities properly and draw valuable insights;</li> <li>➤ Narrow your focus with refined knowledge and strategic insights</li> </ul>
<b>3. Systems thinking</b>	Analyzing and synthesizing all internal and external factors, treating the issues as a whole	<ul style="list-style-type: none"> <li>➤ Consider all key stakeholders’ interests;</li> <li>➤ Considering external factors when deciding for the company</li> </ul>
<b>4. Exploratory reframing</b>	Reframing the crisis or any key issues from different or even opposite perspectives using various tools, along with different people, “to jump out of the box”	<ul style="list-style-type: none"> <li>➤ Understand the issues using metaphors, analogies, and stories;</li> <li>➤ Invite peers and experts to have critical dialogues;</li> <li>➤ Explore other fields for fresh perspectives</li> </ul>
<b>5. Responsive action-reflection</b>	Responding to the crisis promptly with both actions and reflections; Setting aside optimism and ignorance and responding to the crisis with an enhanced sense of risk	<ul style="list-style-type: none"> <li>➤ Reflective practices, especially reflection-in-action;</li> <li>➤ Deliberately set aside presumptions and bias</li> </ul>

Based on the findings of this study, these five attributes were selected with consideration of the attributes and learning that may be illuminating and valuable for business leaders dealing with challenges in a crisis. They also take different people’s learning and thinking preferences into consideration. For example, systems thinking and a balance between focus and possibilities

are attributed to integrating rationality and synthesis. A strong growth mindset and exploratory reframing encourage a personal change of perspectives, intuition, and imagination.

There is another advantage to the availability of identified attributes of strategic thinking. They are more adaptive and generative than concrete strategies or learning practices to think strategically. In other words, learners can generate their learning practices based on their understanding of the attributes and their contexts. Through several learning examples for each attribute in Table 5.11, learners can raise their learning practices to satisfy their preferences and accessibility to resources better.

### **Analytic Category 3**

*The relationship between the participants' perception of the crisis and their learning practices to think strategically.*

This section begins with a review of the participants' perception of the crisis (Finding 1.3) according to the Cynefin Framework and lists the names of the participants in each domain. The researcher then compares the participants' reported learning and learning practices described by theorists in each domain, especially the differences and similarities between learning in the Complex and the Complicated Domains. Lastly, the researcher provides learning practices for participants in the Complex Domain based on the comparison and analysis.

This analytic category explores whether there is a relationship between the participants' perception of the crisis and their learning to think strategically. In the Findings chapter, there were nine people whose perception could be categorized into the Complicated Domain, five into the Complex Domain, and one into the Chaotic Domain. None of the participants' perception could be categorized into the Obvious Domain. Table 5.13 presents the domain descriptions of the Cynefin Framework, the number of the participants in each domain, and the names of these

participants. Table 5.14 presents the participants' reported learning practices in each domain. The researcher drew the patterns between their perception of the crisis and their learning practices and explained the differences in light of the Cynefin Framework and adult learning.

**Table 5.13**

*Domain Descriptions of the Cynefin Framework and the Number of Participants Whose Perceptions Meet the Descriptions of a Specific Domain*

<b>Domain</b>	<b>Explanation</b>	<b>Number and Names of Participants</b>
The Chaotic Domain	There are no perceivable relationships. Best practices from the past fail. There is no data to analyze and waiting for the emergent patterns is a waste of time. Learners need a new way to think, act quickly and decisively reduce the turbulence, and then sense the reaction and take action accordingly.	1 (Amy)
The Complex Domain	There are cause-and-effect relationships between the agents, but both the number of agents and relationships defy categorization or analytic techniques. Emergent patterns can be perceived but not predicted, and expert opinions may not sufficiently prepare learners for the situation. Probing for more perspective is a must.	5 (Jack, May, Tim, Joe, Andy)
The Complicated Domain	While there are different stable causes-and-effects relationships, it takes time and effort to fully discover and understand the patterns. Learners need expert opinions, experiments, fact examination, system thinking, and adaptive enterprise to move from the knowable to the known domain.	9 (Sam, Jackie, Jacob, Jim, Leo, Chuck, Jane, Ling, Tom)
The Obvious Domain	Clear cause-and-effect relationships and patterns can be predicted and created. People agree on objectivity and the focus is on categorizing data, operational procedures, and work efficiency.	0

**Table 5.14***Description of Participants' Learning Practices in Each Domain*

<b>Domain</b>	<b>Name of Participants</b>	<b>Description of the Participants' Learning</b>
The Chaotic Domain	Amy	<ul style="list-style-type: none"> <li>➤ Quiet quitting: completing her minimum work requirements without going above and beyond;</li> <li>➤ Laid back and waiting;</li> <li>➤ Focused more on personal goals;</li> <li>➤ Limited work-related learning or reflection</li> </ul>
The Complex Domain	Jack, May, Tim, Joe, Andy	<ul style="list-style-type: none"> <li>➤ Learned from failures and difficulties;</li> <li>➤ Trials and errors;</li> <li>➤ Learned from Chinese history and culture;</li> <li>➤ Learned from metaphors and symbols;</li> <li>➤ Inquired with questions;</li> <li>➤ Consulting peers and experts;</li> <li>➤ Critical Reflection on values and presumptions;</li> <li>➤ Reframed the crisis</li> </ul>
The Complicated Domain	Sam, Jackie, Jacob, Jim, Leo, Chuck, Jane, Ling, Tom	<ul style="list-style-type: none"> <li>➤ Explored new businesses;</li> <li>➤ Learned from successful experiences;</li> <li>➤ Collecting employees' feedback;</li> <li>➤ Trials and errors;</li> <li>➤ Role shifting;</li> <li>➤ Peer learning;</li> <li>➤ Learning from traditional wisdom;</li> <li>➤ Learned from others' failures;</li> <li>➤ Active research and development;</li> <li>➤ Active experimentation;</li> <li>➤ Taking more social responsibilities;</li> <li>➤ Examined prior experiences and assumptions;</li> <li>➤ Studied the policy;</li> <li>➤ Studied social trends;</li> </ul>
The Obvious Domain	N/A	N/A

Since there was only one person whose perception fell in the Chaotic Domain and none in the Obvious Domain, the data from the participants' interviews were insufficient to draw

convincing conclusions on the learning in the Chaotic or Obvious Domain. Therefore, the researcher focused on finding patterns of the participants' learning in the Complex and Complicated Domains.

When the researcher compared the people in the Complex Domain and those in the Complicated Domain, he realized the participants in the Complex Domain generally had suffered more losses than those in the Complicated Domain. Except for one participant, the other four participants let go two-thirds of their employees during the crisis. In comparison, eight of the nine participants in the Complicated Domain survived the crisis and gained some success in the crisis.

Based on the analysis of Table 5.13, about the five participants' learning in each domain, there were four patterns of learning among the participants in the Complex Domain:

- 1) They emphasized learning from painful experiences, failures, and mistakes.
- 2) There was much learning from culture and symbolism, including history, Chinese culture, stories, metaphors, and analogies.
- 3) They highlighted critical reflection on their presumptions and tried to reframe the crisis from other perspectives.
- 4) They expressed greater uncertainty and ambiguity and less confidence in the learning processes.

In comparison, four learning patterns existed among the nine participants in the Complicated Domain.

- 1) They emphasized learning from active experimentation of new businesses.
- 2) They learned from hardship and their own successful experiences in the exploration during the crisis.

- 3) They considered social responsibilities, policies, and world trends more in their learning process to think strategically.
- 4) They reflected on their experiences and assumptions but seemed more confident in what they were doing and relatively employed less critical reflection than the participants in the Complex Domain.

Both groups shared learning from trial and error, peer learning, and observing other experiences. Regarding differences, the participants in the Complex Domain group tended to seek new perspectives and insights from historical and cultural inspiration and critical reflection on their prior experience and assumptions. On the other hand, the participants in the Complicated Domain group found more insights in their own active experimentation and successful experiences, and were more aware of social responsibilities and world trends.

When making sense of the learning practices between the Complex Domain and the Complicated Domain in light of the Cynefin Framework (Figure 5.7) by Kurtz and Snowden

**Figure 5.7**

*Cynefin Framework (Kurtz & Snowden, 2003)*



(2003), we have a better understanding of the differences in the learning practices between the two groups and how the Complex Domain can develop into the Complicated Domain.

According to the Cynefin Framework (Kurtz & Snowden, 2003), the Complex Domain participants in this study were exploring practices that would be effective to survive the crisis. These were “emergent practices,” which could also explain why the participants articulated more cultural and historical exploration. However, they were still unsure if what they were doing was effective and helpful, so they felt exploring cultural and historical learning might illuminate them.

The relationship between their action and the survival of their business could be perceived but not clearly predicted. Hence, they tried to have more reflection, including regular reflection on daily management and critical reflection on one’s assumptions, a process to “sense” (Kurtz & Snowden, 2003) their learning and action.

For example, Jack was one of the participants from the Complex Domain. He struggled to find a new and proper business after shifting from subject-tutoring to non-subject-tutoring. When we conducted the interview, he was testing new daycare services near some schools and was unsure if it would work out for his company. Though he had gained some suggestions from friends and experts in the industry, he needed to get hands-on experience and insights to help him make informed decisions.

The participants in the Complicated Domain had relatively more successful experiences shifting to new businesses or new projects during the crisis. They had discovered some “good practices” (Kurtz & Snowden, 2003), so they had a clearer sense as to whether certain practices could bring positive results. They had moved from the “sensing” stage to the “analyzing” stage, but they still needed more experience and information to apply the new ideas to businesses or projects at a larger scale. They could not understand all the complicated factors in the middle of



the crisis—considering all the external factors operating, such as the political environment, economic inflation, and international relationship between China and many other countries.

For example, Jane and her company gained some success after simplifying the company's structure and designing the Flywheel Series curriculum. However, they needed more experiments, data, and analysis to decide whether she could apply the new structures and curriculum to the 23 campus sites of her company. At the same time, she was still not sure how the tutoring industry and her company would evolve after the crisis of the Pandemic and the DRP. There might merge some new state educational policies that influenced their business and long-term development. "Policies were something beyond my control," Jane emphasized. Like many other participants in the Complicated Domain, Jane treated policies as a potential impediment but not a predicted challenge. Therefore, she considered policies in developing her strategies and practices, but not as a major concern.

Based on the above discussion, if the Complex Domain participants want to move to the Complicated Domain, they may try to:

- 1) continue their exploration of new businesses and projects,
- 2) gain some small wins before they try to achieve significant victories,
- 3) put more time and resources into hands-on experimentation, if they have spent enough time seeking new perspectives and directions, and
- 4) be patient and reflect on their experiments in order to acquire new knowledge and strategic insights.

### **Revisiting the Four Assumptions From Chapter 1**

The four assumptions underlying this study, which were stated in Chapter 1, are revisited in this section after analyzing and discussing the data. The four assumptions were posited there

as “working hypotheses” based on the researcher’s knowledge and background and related to one of the research questions. They are listed and revisited below:

**Assumption 1:** *Not every business leader can think strategically, but those more capable of thinking strategically are more likely to adapt to the new environment successfully during the Pandemic and the Double-Reduction Policy.*

The first assumption held true based on Finding 1 (on perceptions) and Finding 2 (on strategies) in Chapter 4. Those participants in the Complicated Domain tended to have more strategies to deal with challenges and adapt to the new environment faster than those in the Complex Domain. They had more successful experiences in exploring new businesses and summarized more down-to-earth and practical strategies to deal with the challenges, whether they were from the subject or non-subject-tutoring companies.

**Assumption 2:** *How leaders make sense of the crisis affects their learning to think strategically in the new environment.*

The second assumption also was partially true. Based on Analytic Category 3 in Chapter 5, participants in the Complex Domain had different learning practices from those in the Complicated Domain. The participants in the Complex Domain tended to seek new perspectives and insights from historical and cultural inspiration and critical reflection on their prior experience and assumptions. The participants in the Complicated Domain tended to find more insights from their own active experimentation and successful experiences while being more aware of social responsibilities and world trends. However, they also shared similar learning practices, including learning from trial and error, peer learning, and observing others’ experiences.

**Assumption 3:** *Business leaders in the tutoring industry develop their strategic thinking capability mainly from informal and incidental learning.*

Assumption 3 held true based on Analytic Category 2 in Chapter 5. The business leaders in this study appeared to use a non-linear, informal learning process that did not necessarily progress in a stepwise order. Their informal learning practices could be categorized into intentional and incidental learning (Marsick & Watkins, 1995/2015), and socialization (Schugurensky, 2010) that was integrated into these two types of informal learning.

**Assumption 4:** *Certain learning practices will help cultivate strategic thinking in the business leaders' adaptation to the new environment.*

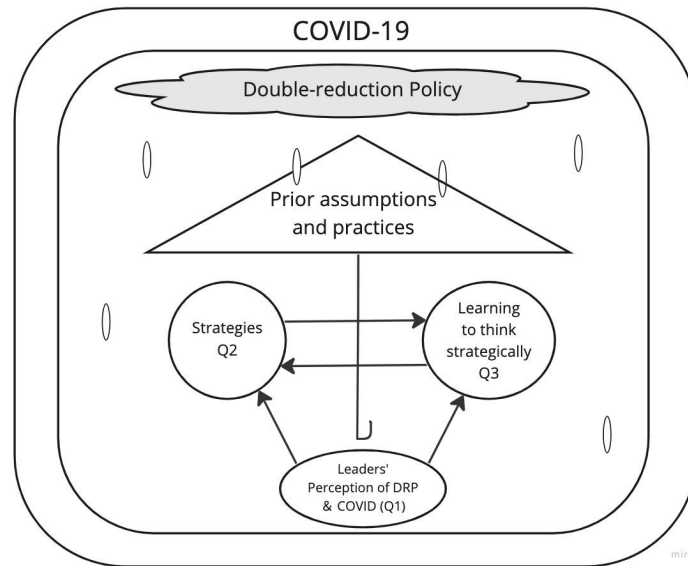
Assumption 4 was partially correct. Based on the discussion of the relationship between strategies and learning to think strategically and the five attributes of strategic thinking in a time of crisis in Analytic Category 3, it appears that some learning practices may contribute to strategic thinking. For example, having critical dialogues with friends may help business leaders reframe the crisis. However, individual contexts and learning preferences should be considered when selecting proper learning practices for strategic thinking development. What works for one person does not necessarily work for another.

### **Revisiting the Conceptual Framework**

In Chapter 2, the researcher proposed a Conceptual Framework (Figure 5.8) using the image of a dark cloud and an umbrella. The dark cloud and the raindrops symbolize the crisis and its negative impact. As the raindrops damage the umbrella of prior assumptions and practices, new support comes from the umbrella holder, who is actively experimenting with strategies and learning to think strategically based on his perceptions of the crisis.

**Figure 5.8**

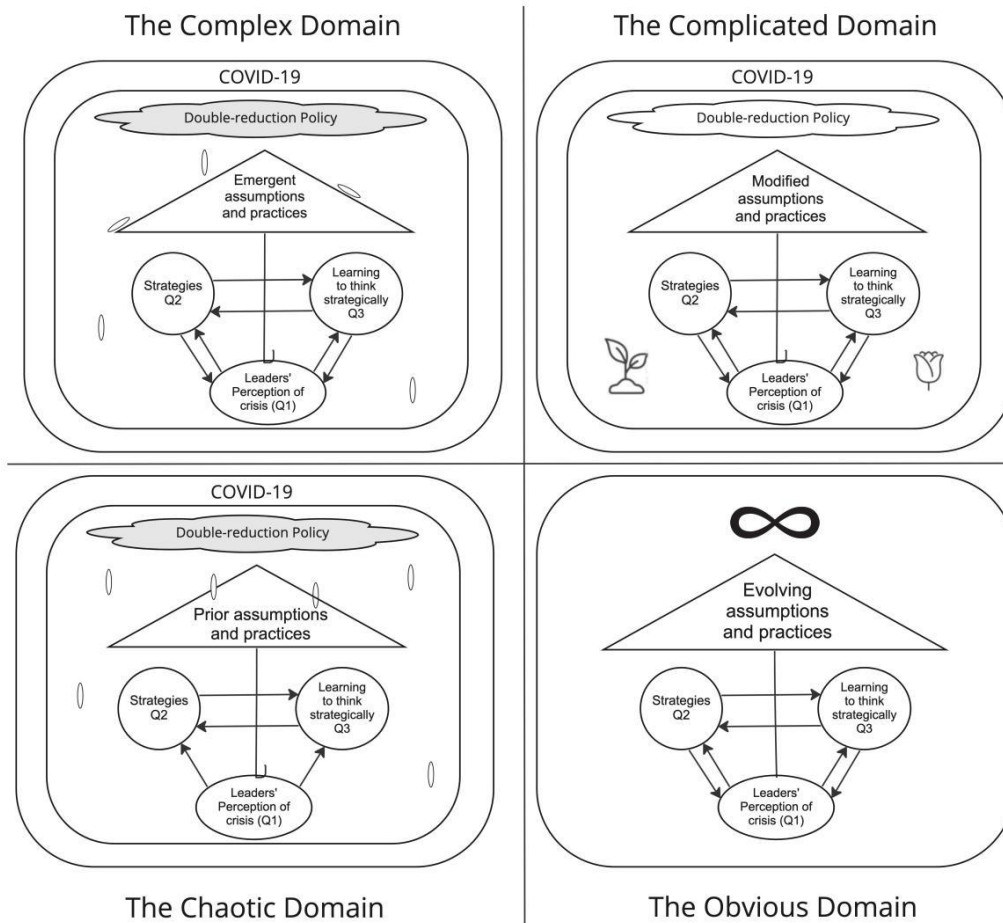
Prior Conceptual Framework of Strategic Thinking in a Time of Crisis



As business leaders used metaphors to express their learning process to think strategically, the researcher proposed using metaphors in a modified conceptual framework portraying learning to think strategically based on the Cynefin Framework (Figure 5.9).

**Figure 5.9**

Modified Conceptual Framework of Strategic Thinking in a Time of Crisis



In Figure 5.9, business leaders in the Chaotic Domain were confused by the crisis. Their umbrella of prior assumptions and practices was damaged by the rain of the crisis. They developed strategies and learning to think strategically based on a shallow understanding of the crisis.

Business leaders in the Complex Domain developed new understanding of the crisis, which supported their strategies and learning practices to cultivate strategic thinking. Meanwhile, their strategies and learning helped them examine their new understanding of the crisis. Their

umbrella of assumptions and practices could resist the negative impact of the rain, but the impact of the crisis continued. Therefore, the cloud of the crisis was still dark with risks and danger.

Business leaders in the Complicated Domain continued developing their strategies and learning practices and forming effective strategies to deal with the crisis. Their umbrella was made of modified and effective assumptions and practices. Though the cloud of the crisis still existed, it was no longer dark. Meanwhile, the rain helped them grow flowers of knowledge and wisdom.

There were no business leaders in the Obvious Domain yet. In the Obvious Domain, the infinity symbol represents potential crises in the future. The interaction among the business leaders' perception, strategies, and learning practices still continues. Business leaders develop enhanced awareness of strategic thinking, and they continue to modify their umbrella of assumptions and practices. It is an evolving developmental process.

### **Summary**

This chapter analyzed and discussed a sample of 15 participants' perceptions of the crisis, their strategies to deal with the crisis, and their learning to think strategically in this process in the Chinese tutoring industry. In summary, the discussion illustrated the multifaceted and complex nature of participants' strategies and their process of learning to think strategically. Furthermore, it revealed various factors that influenced the business leaders' strategies and learning practices and offered a detailed theoretical explanation as to what perception the business leaders formed of the crisis, what strategies they used to deal with it, and how they developed their strategic thinking capabilities through various learning practices in this process.

Based on Analytic Category 1, the participants' level of experience had an influence on their perception of the crisis and their strategies to deal with it, and the participants' positions

also influenced their strategies and their learning to think strategically during the crisis. Gender did not notably influence the participants' perception of the crisis, their strategies, and learning for strategic thinking development. However, female participants tended to emphasize the importance of spousal support to their success in dealing with the crisis.

Based on Analytic Category 2, some strategies were emphasized in the strategic thinking phase, and some in the strategic planning and implementation phases in light of the Sloan Triad of Strategy Process. A modified model of five attributes of strategic thinking in a time of crisis was drawn to help business leaders explore their learning practices for strategic thinking development:

- 1) a strong growth mindset
- 2) a balance between focus and possibilities
- 3) systems thinking
- 4) exploratory reframing
- 5) responsive action-reflection

From Analytic Category 3, in light of the Cynefin Framework (Kurtz & Snowden, 2003), four patterns of “emergent learning practices” were drawn from participants who perceived the crisis as a complex situation. Another four patterns of “good learning practices” were summarized from those who perceived the crisis as complicated. Finally, some learning practices were recommended for learners who want to move from the Complex Domain to the Complicated Domain in a time of crisis.

Presenting an analysis of the findings uncovered in this study warrants a degree of caution. First, the research sample was small, comprising interview data from only 15 interviewees, including 5 female and 10 male participants. However, there might be more than

one million business leaders in the Chinese tutoring industry, as there were more than one million after-school tutoring companies in China before the Pandemic (NIES et al., 2020).

Second, except for one participant who voluntarily gave up his business in the tutoring industry, the other 14 participants and their companies survived the crisis, so the perceptions of the crisis and the strategies reported might be biased toward the survivors' side. The opinions of those who failed in the crisis were essentially not represented.

Last, the researcher did not have a full-time work experience in the tutoring industry and thus had no insider expertise about the tutoring industry. As a result, the analysis and discussion might be biased and subjective as the researcher may have made sense of the data. Toward this end, and to help minimize this limitation, the researcher was engaged in ongoing critical reflections through journaling and critical dialogues with his advisors throughout data collection and analysis. The researcher also knew that others may have told a different story if given the same materials and analysis procedure.



## **Chapter 6: Conclusions and Recommendations**

### **Overview**

The purpose of this modified exploratory multicase study was to explore with a sample of 15 business leaders in the tutoring industry in China what strategies they used to deal with the crisis of COVID-19 and the Double Reduction Policy and how they learned to think strategically in this process. The conclusions follow the research questions and the findings and therefore address four areas:

- 1) the business leaders' perceptions of the crisis
- 2) the business leaders' strategies to deal with the crisis
- 3) the learning practices they used to cultivate their strategic thinking capabilities
- 4) the other factors that helped or hindered the leaders' learning to think strategically

The following is a discussion of the major findings and conclusions drawn from this research. This discussion is followed by the researcher's recommendations and a final reflection on this study.

### **Conclusions**

**Conclusion 1: Unprecedented crises like COVID-19 and the Double Reduction Policy can bring people benefits and valuable insights.**

The first major finding of this research was that most Chinese business leaders admitted the negative impacts of the crisis on their businesses but also emphasized its positive influence on their personal growth, business success, and the progress of Chinese education. The first conclusion drawn from this finding is that even unprecedented crises like COVID-19 and the

Double Reduction Policy can bring people benefits and valuable insights. Human beings are naturally resourceful and adaptive creatives (Kimsey-House et al., 2010), and we can find opportunities and possibilities in difficult situations. When we are in a difficult situation, we may suffer and feel pain, but we are also capable of making meaning of the situation and adapting to the new environment with newfound insights and strategies. As Kegan and Lahey (2002) suggest, how we talk can change how we work. However, business leaders need to allow themselves to be open to diverse perspectives. The more perspectives leaders see, the bigger picture they will have of a crisis or a challenge.

**Conclusion 2: Business leaders can develop critical strategies by combining their own and others' experiences and strategic insights into dealing with crises.**

The second finding of his research was that business leaders used various strategies at personal, organizational, and social levels. The personal-level strategies included having a growth mindset and enhanced awareness of risks. Three strategies were summarized at the organizational level: focusing on core problems of challenges, reserving money for crises, and exploring different businesses actively. There was only one strategy at the social level: considering all key stakeholders' interests.

A conclusion drawn from this finding is that business leaders can develop critical strategies by combining their own and others' experiences and strategic insights into dealing with crises. On the one hand, business leaders should value their own experience experimenting with different strategies. There is no perfect solution to a crisis. A strategy working well in one company may not succeed in another due to different contexts. Therefore, leaders who know about their companies may formulate strategies that fit the company's reality. The finding also showed that all companies had their own set of strategies.

On the other hand, leaders should not turn a deaf ear to voices from outside. Though the business leaders in this study shared different strategies, some strategies were shared by many leaders and appeared to be more effective. Therefore, strategies from experts and successful examples may bring valuable insights and solutions to a company. Leaders should be open to hearing other voices from experts and outsiders and integrate useful insights into their strategies.

**Conclusion 3: Business leaders can use informal learning practices and deliberately use them to cultivate their strategic thinking capabilities.**

The third major finding of this research was that business leaders in the Chinese tutoring industry learned to think strategically from direct and indirect informal learning experiences and two thinking processes: systems thinking and metaphorical thinking.

The third conclusion is business leaders can use informal learning practices and deliberately use them for cultivating their strategic thinking capabilities. Informal learning is agile and non-linear and has been proven more effective than formal learning in cultivating strategic thinking (Sloan, 2020). In a time of crisis, what matters is not the number of informal learning approaches, but the frequency and impact of strategic insights business leaders have gained from their informal learning approaches.

**Conclusion 4: Business leaders need to combine learning and action for cultivating strategic thinking capabilities.**

The fourth conclusion is business leaders need to combine learning and action for cultivating strategic thinking capabilities. Some business leaders are afraid of making changes; they may have thought of various strategies to deal with the crisis, but they fail to implement them. To maximize the potential of learning, business leaders should not limit their learning to strategy formulation; they should wisely and bravely test and implement these strategies. The

learning from strategy planning and implementation can also yield profound and valuable strategic insight. Similarly, business leaders who stick to active implementation with their strategies may improve their strategic thinking by pausing and reflecting on their implementation profoundly and critically.

**Conclusion 5: Business leaders should consider the influence of policies and relationships in their strategy formulation and learning process.**

The finding of the fourth question is that the participants reported policies and relationships as two other factors that helped or hindered the business leaders' learning to think strategically. Nine participants reported the influence of policies on their learning to think strategically and nine participants reported relationships as a helping factor. Therefore, the fourth conclusion is business leaders should consider the influence of policies and relationships in their strategy formulation and learning process. Political considerations should be part of the strategy formulation. If business leaders learn to analyze and predict the influence of policies and other political factors, they may become better strategic thinkers in China. Besides, leaders can rediscover their support systems. They can consciously reflect on the significance of different relationships in their strategic development during the crisis and deliberately nourish these relationships while dealing with challenges.

**Recommendations**

The researcher offers recommendations based on the findings, analysis, and conclusions of this study. The following recommendations are for:

- 1) business leaders in a time of crisis,
- 2) leadership facilitators helping business leaders with strategic thinking capabilities,
- 3) future researchers on strategic thinking.

## Recommendations for Business Leaders in a Time of Crisis

Many factors may affect business leaders' strategies in a time of crisis, but learning to think strategically may be one of the most enduring and practical approaches to strategic development. Table 6.1 summarizes four recommendations for business leaders based on the findings, discussion, conclusions of the research questions. A detailed explanation is given following the table.

**Table 6.1**

*Recommendations for Business Leaders to Learn to Think Strategically*

Research Questions	Recommendations
RQ1: Perceptions of the crisis	Explore more diverse and broader perspectives of a crisis
RQ2: Strategies to deal with crises	Use the rational analytic left brain and the intuitive creative right brain to develop strategies
RQ3: Learning to think strategically in a crisis	Make informal learning a daily practice as a leader; Create a space for strategic insights.
RQ4: Other factors that helped or hindered learning	Build healthy relationships to promote strategic thinking.

### *Explore More Diverse and Broader Perspectives of a Crisis*

Because business leaders have their experience and expertise, they may easily make their judgment when a crisis happens. However, what leaders know may fail in a crisis. Therefore, they should set aside their judgment and try to explore more diverse and broader perspectives from different people, including colleagues, experts, peers, competitors, and even leaders from

other fields. They can also try to examine their own assumptions and reframe crises from fresh and even weird perspectives.

***Use the Rational Analytic Left Brain and the Intuitive Creative Right Brain to Develop Strategies***

Business leaders tend to solve problems with rationality and analysis, but effective strategies result from integrating rational analytic thinking and intuitive creative thinking. Besides using analytical tools such as SWOT and PEST, leaders can also use their heart, intuition, and imagination while developing strategies. Leaders can empathize with the customers and all the other stakeholders, feel their pain and hear their voices, and formulate strategies resulting from rational analysis and humane considerations.

***Make Informal Learning a Daily Practice and Create a Space for Strategic Insights as a Leader***

At a personal level, leaders can make informal learning a daily practice. Make reflection part of their schedule, whether it is reflection-in-action or reflection-on-action. Many new ideas on strategies come from random conversations with a colleague about something irrelevant. Also, keep a journal of new ideas and new strategic insights. This journal can help leaders accumulate their insights and record their thought processes.

At an organizational level, leaders can build a shared culture and encourage everyone to share their experiences and insights. This way, leaders learn from all the employees' experiences and see from various perspectives. As Mintzberg (1994) suggests, leaders synthesize both their own and employees' experience and insights at different levels in their strategy development process. Therefore, leaders can try regular critical group discussions, constructive feedback, trial-and-error meetings, and many other team learning activities.

### ***Build Healthy Relationships to Promote Strategic Thinking***

Healthy relationships play a critical role in supporting business leaders' strategy formulation, planning, and execution and their learning in a time of crisis. Strategic thinking in a crisis requires leaders to step out of their comfort zone, find the core problems, and figure out new directions that the employees can and will explore for survival. Therefore, leaders are under enormous pressure. This study's findings and conclusions suggest that business leaders intentionally build healthy and supportive relationships to promote their strategies and learning to think strategically. For example, they can form mutually beneficial networks in a crisis for information and experience exchange. They can proactively seek help from spouses, family members, friends, and business partners who can offer timely support intellectually and psychologically. In addition, they can intentionally nourish and improve the relationships or networks with people in their support systems.

### **Recommendations for Leadership Trainers Who Aim to Improve Business Leaders' Strategic Thinking Capabilities**

One of the researcher's objectives in this study was to help adult educators who design and deliver leadership programs for business leaders who want to improve their strategic thinking capabilities. Table 6.2 summarizes four recommendations for leadership facilitators based on the findings, discussions, and conclusions of the research questions. A detailed articulation is given so that leadership trainers know what they can do.

**Table 6.2***Recommendations for Leadership Facilitators Who Teach Thinking Strategically*

Research Questions	Recommendations
RQ1: Perceptions of the crisis	Assist leaders in broadening or reframing their perspectives
RQ2: Strategies to deal with crises	Inspire leaders to develop strategies using creative and critical ways
RQ3: Learning to think strategically in a crisis	Improve leaders' informal learning practices in light of the Cynefin Framework
RQ4: Other factors that helped or hindered learning	Invite leaders to share their stories about relationships

***Assist Leaders in Broadening or Reframing their Perspectives***

Besides inviting leaders to share their perspectives, leadership facilitators can invite leaders to see crises or challenges from new perspectives. For example, facilitators can use Mintzberg's Strategic Thinking as Seeing Model to help leaders see their challenges from perspectives of "seeing above," "seeing below," "seeing ahead," "seeing behind," and "seeing besides." Facilitators can use other creative ways to encourage leaders to describe their perceptions of crises or challenges through metaphors, stories, associations, and other proper ways. In short, leadership trainers can help leaders broaden or reframe their perspectives.

***Inspire Leaders to Develop Strategies Using Creative and Critical Ways***

Besides using rational and analytic tools, facilitators can consider creative and critical tools to help leaders formulate strategies. For example, many leaders have a fully occupied schedule. Based on the strategy of focusing on core problems, facilitators can ask leaders to



make a hard choice by prioritizing one or two focuses and getting rid of the other tasks. Besides, facilitators can encourage leaders to conduct critical dialogues with peers. Critical dialogues can help leaders examine and modify their previous assumptions and strategies. It is worth noting that leadership facilitators do not have to be trainers in a formal setting. They can also be coaches or consultants in an informal setting to help leaders solve their challenges.

### ***Improve Leaders' Informal Learning Practices in Light of the Cynefin Framework***

Facilitators can help leaders better understand the concept and practices of informal learning and encourage them to utilize the informal learning practices they find effective in their contexts. Based on this study's findings and analysis of learning to think strategically in light of the Cynefin Framework, the researcher suggests that facilitators can learn about the Cynefin Framework and adapt their delivery based on the leaders' perception domain. For example, if leaders are in the Chaotic Domain, facilitators can help them have both regular and critical reflections on their experiences and assumptions. If leaders are in the Complex Domain, the facilitators can encourage them to share successful experiences dealing with challenges; even these successes are small wins.

However, suppose facilitators find the Cynefin Framework challenging to understand. In that case, they can still use different informal learning practices to improve leaders' strategic thinking, including trial and error, systems thinking, metaphorical thinking, exploring traditional Chinese cultures, and many other practices.

### ***Invite Leaders to Share their Stories about Relationships***

Stories are always powerful and enduring. Facilitators can encourage leaders to share stories about how their spouses, friends, competitors, mentors, and coaches inspired them to become better strategic thinkers. They do not have to be happy-ending stories; they can also be

stories about unpleasant experiences with enduring value for strategies and strategic thinking. Facilitators can also invite leaders to reexamine assumptions in the stories and help them re-evaluate, modify, or even change some perspectives.

### **Recommendations for Future Researchers on Strategic Thinking**

The researcher has three recommendations for future researchers. The first one is to have action-learning-based research on learning to think strategically. The second is to explore how cultural factors play a role in influencing business leaders' learning practices to cultivate their strategic thinking. The third one is to focus on learning to think strategically in the Complex and the Complicated Domains in light of the Cynefin Framework. The researcher will articulate the three recommendations in detail.

#### ***Consider Action-learning-based Research***

It is recommended that future researchers conduct action-learning-based research on business leaders' learning to think strategically if conditions permit. This research was a modified multi-case study that mainly relied on participants' self-reported data during interviews. The data collected thus reflected participants' current perspectives on their learning but may not be accurate or complete accounts of their actual learning. Learning to think strategically is an ongoing and non-linear process that is influenced by internal and external factors. Action-learning-based research will help researchers observe the ongoing process and collect data from more sources, including interviews, observations, conversations, learning journals, and the researchers' first-hand communication with business leaders. It requires more time and effort, but the validity and trustworthiness of the data and findings are improved this way.

### ***Explore How Cultural Factors Play a Role in Influencing Business Leaders' Learning to Think Strategically***

In this research, the researcher realized that many participants reported learning extensively from cultural dimensions, including cultural values, stories, poems, metaphors, historical heroes, and other cultural factors. For example, the researcher found it an exciting topic to explore how Chinese business leaders learn from metaphorical thinking. Leaders from other cultures also learn to think strategically from metaphors (Sloan, 2020), but how do Chinese leaders learn from metaphors differently? Future researchers can explore the mechanism of metaphorical thinking in influencing leaders' learning to think strategically in different cultures.

### ***Consider Exploring In-depth Research on Learning to Think Strategically in the Complex and the Complicated Domains in light of the Cynefin Framework***

The researcher realized that more data are needed to explore the learning patterns to cultivate strategic thinking in the Complex and the Complicated Domains. In this research project, participants in the Complex Domain seemed to be more active in exploring perspective transformation through critical reflection and cultural learning. On the other hand, participants in the Complicated Domain seemed to be more confident in their experience and drew more insights from their own learning experiences, which may limit their learning and development into strategic thinkers. The findings seemed contradictory because the researcher assumed that participants in the Complicated Domain would have more critical reflection and perspective transformation than those in the Complex Domain. It still needs to be determined how business leaders move from the Complex to the Complicated stage through learning practices. Therefore, future researchers can conduct in-depth research on the differences between informal learning in the two domains and explore the relationship between learning in the Complex Domain and learning in the Complicated Domain.

## Researcher Reflections

*When your mind is full of assumptions, conclusions, and beliefs, it has no penetration; it just repeats past impressions.*

—Sadhguru (1957-), Indian spiritual leader and Educator

As the research has come close to an end, the researcher wants to pause for a moment and reflect on the journey of exploring a group of Chinese tutoring business leaders' strategies to deal with a crisis and their learning to think strategically.

The researcher has been challenged repeatedly in this journey. It was not easy to combine strategic thinking, informal learning, and the Cynefin Framework in one single research project. No academic articles were found on Google Scholar about using the Cynefin Framework to understand strategic thinking or learning to think strategically in a time of crisis. The researcher doubted his capability to draw valuable findings and insights using the three theories. At some point, he considered giving up the Cynefin Framework. Surprisingly, the findings and analysis turned out to be illuminating and valuable as clear patterns emerged from the participants' interview data. Most participants fell into the Complex and the Complicated Domains, and their learning practices also resonated with the description of the Cynefin Framework. This researcher has gained a deeper understanding of strategic thinking and the Cynefin Framework through the combination of these theories through this "learning-by-doing" (Dewey, 1933) process.

We all know that strategic thinking is a highly-sought leadership trait, but strategic thinking is by no means a capability that can be cultivated in a short time. The researcher felt lucky to have chosen this research topic, as it integrated Western and Eastern knowledge and wisdom from contemporary and ancient intellectual authors and aimed to create a better future for organizations, countries, and even the whole world. However, the author felt challenged multiple times, casting doubt on his own understanding of strategic thinking. He kept asking himself, "Is exploring other businesses really strategic thinking?" "Can reserving sufficient

money be a useful strategy for other business leaders?” “How do you help leaders improve their strategic development from metaphorical thinking?” Facing these difficult questions, the researcher felt extremely lucky to have professors who are experts on strategic thinking and learning to think strategically, including Professor Marsick, Professor Yorks, and Professor Sloan, who supported the researcher’s thought process with their academic knowledge, expert insights, and kind encouragement. Eventually, the researcher gradually formed a comprehensive system of strategic thinking and better understood contrasting terms like *strategic planning* and *strategic thinking*, *tactic* and *strategy*, and *rational analytic processes* and *a-rational intuitive processes*.

However, the more the researcher explored strategic thinking and learning to cultivate strategic thinking capabilities, the more urgent he felt he needed more hands-on experience in strategy formulation and implementation. Knowing is different from doing, and the researcher will continue the research by testing the learning practices he proposed in this research project.

Last but not least, the researcher expects that more future researchers will research adult learning and strategic thinking in depth in different contexts. It will be thought-provoking and valuable to explore how different contexts (e.g., culture, history, politics) affect people’s strategic thinking and learning. Such research will help narrow the gaps in a conflicting world because people may learn to understand and appreciate strategic thinking from another country. It is hard, but it is worthwhile.

The researcher will end this research project with a quote from the great Singaporean leader and strategist Lee Kuan Yew: “To the young and the not-so-old, I say, look at that horizon, follow that rainbow, and go ride it.”

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## **Appendix A: Informed Consent Form for Interviewees**

### **INFORMED CONSENT**

**Protocol Title:** How Chinese Business Leaders in the Tutoring Industry Learn to Think Strategically in a Time of Double Crises

**Principal Researcher:** Ruohao Chen, EdD Candidate, Teachers College  
917-771-0773, rc3035@tc.columbia.edu

#### **INTRODUCTION**

You are invited to participate in this research study called “How Chinese Business Leaders in the Tutoring Industry Learn to Think Strategically in a Time of Double Crises.” You may qualify to take part in this research study because you hold a mid-level or top-level position in your company, have worked in the tutoring industry for 10 or more years, and have been referred to as a strategic thinker by someone else. Approximately twenty people will participate in this study and it will take 110 to 200 minutes of your time to complete a survey, an interview and/or a focus group discussion.

#### **WHY IS THIS STUDY BEING DONE?**

This study is being done to determine how Chinese business leaders in the tutoring industry learn to think strategically in a time of crisis. The study will focus on the business leaders’ perception of the crises, the patterns of their learning practices that help cultivate strategic thinking capability and the attributes of Chinese strategic thinkers in a time of crisis.

#### **WHAT WILL I BE ASKED TO DO IF I AGREE TO TAKE PART IN THIS STUDY?**

If You decide to participate, the primary researcher will ask you to complete a survey, individually interview you, and ask that you participate in a focus group session with your peers. Before the individual interview, you will be asked to fill in a questionnaire that collect your information in terms of your age, gender, educational background, work experience, your responsibility in current position, and your perception of strategy. It will take you ten to twenty minutes. When you complete the survey, you will return it in a PDF form with your name on it via Wechat to the researcher. Please note that the information collected is completely confidential and will only be used for the purposes of this research study.

During the individual interview you will be asked to discuss your work experience addressing the challenges from COVID-19 and the Double Reduction Policy. This interview will be zoom-recorded. The researcher will let you know when the recording starts and ends in the interview.

After the recording is written down (transcribed) the recording will be deleted. If you do not wish to be recorded, you will still be able to participate. The researcher will just take hand-notes.

The interview will take approximately 60 to 90 minutes. You will be given a de-identified code in order to keep your identity confidential.

You will then be asked to participate in a focus group run by the primary researcher where business leaders from the tutoring companies like yourself will discuss your experiences of dealing with the challenges from COVID-19 and Double Reduction Policy. This will be zoom recorded, but the recording will be deleted after it is transcribed. Everyone will be asked not to discuss what is being spoken about outside of the group but it is impossible to guarantee complete confidentiality. You can decide if you would like to take part in the focus group discussion. This focus group session will take about 90 minutes.

All of these procedures will be done on Zoom or Tencent Meeting at a time that is convenient to you.

### **WHAT POSSIBLE RISKS OR DISCOMFORTS CAN I EXPECT FROM TAKING PART IN THIS STUDY?**

This is a minimal risk study, which means the harms or discomforts that you may experience are not greater than you would ordinarily encounter in daily life while taking routine physical or psychological examinations or tests. However, there are some risks to consider. You might feel embarrassed to discuss challenges and difficult moments that you experienced during the crises of COVID-19 or the Double Reduction Policy. You do not have to answer any questions or share anything you do not want to talk about. You can stop participating in the study at any time without penalty. You might feel concerned that things you say might get back to your supervisor. Your information will be kept confidential.

The primary researcher is taking precautions to keep your information confidential and prevent anyone from discovering or guessing your identity, such as using de-identified code (a de-identified code is a code the primary research uses to represent a participant, but others don't know who the participant is ) instead of your name and keeping all information on a password protected computer and locked in a file drawer.

### **WHAT POSSIBLE BENEFITS CAN I EXPECT FROM TAKING PART IN THIS STUDY?**

There is no direct benefit to you for participating in this study. Participation may benefit the field of strategic thinking to better understand the possible approaches you can use to improve your strategic thinking capability. You will have a chance to reflect on what you did to adapt to the new environment after COVID-19 and the Double Reduction Policy occurred. You will have a chance to know others' perspectives of the crises and approaches to dealing with the challenges by taking part in the focus group discussion.



**WILL I BE PAID FOR BEING IN THIS STUDY?**

You will not be paid to participate. There are no costs to you for taking part in this study.

**WHEN IS THE STUDY OVER? CAN I LEAVE THE STUDY BEFORE IT ENDS?**

If you wish to take part in the focus group discussion, the study is over when you have filled out the survey, completed the individual interview, and taken part in the focus group session. If you do not wish to take part in the focus group discussion, the study is over when you have filled out the survey and completed the individual interview. However, you can leave the study at any time even if you have not finished.

**PROTECTION OF YOUR CONFIDENTIALITY**

The primary researcher will keep all written materials locked in a desk drawer in a locked office. Any electronic or digital information (including video recordings) will be stored on a computer that is password protected. When the video recordings are transcribed, the recordings will then be destroyed. There will be no record matching your real name with your de-identified codes and the master list identifying the interviewees is kept locked and separate from the list of codes.

**HOW WILL THE RESULTS BE USED?**

The results of this study will be published in journals and presented at academic conferences. Your identity will be removed from any data you provide before publication or use for educational purposes. Your name or any identifying information about you will not be published. This study is being conducted as part of the dissertation of the primary researcher.

**CONSENT FOR VIDEO RECORDING**

Video recording is part of this research study. You can choose whether to give permission to be recorded. If you decide that you don't wish to be recorded, **you will still be able to participate** in this research study.

\_\_\_\_\_ I give my consent to be recorded

\_\_\_\_\_  
Signature

\_\_\_\_\_ I **do not** consent to be recorded

\_\_\_\_\_  
Signature

**WHO MAY VIEW MY PARTICIPATION IN THIS STUDY**

\_\_\_\_\_ I consent to allow written materials viewed at an educational setting or at a conference outside of Teachers College, Columbia University.

\_\_\_\_\_  
Signature



- Any information derived from the research study that personally identifies me will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- Company identifiers may be removed from the data. De-identified data may be used for future research studies, or distributed to another researcher for future research without additional informed consent from you (the research participant or the research participant's representative).
- I should receive a copy of the Informed Consent Form document.

**My signature means that I agree to participate in this study:**

**Print name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

## Appendix B: Survey for Demographic Data

Thank you for agreeing to participate in this study! Please complete the survey below and return it in a PDF form with your name on it via Wechat to the researcher Ruohao Chen. Please note that the information collected in this questionnaire is completely confidential and will only be used for the purposes of this research study

### Demographic Data Sheet

1. My gender is: \_\_\_\_\_ Female \_\_\_\_\_ Male \_\_\_\_\_ Prefer not to tell;
2. My age is: \_\_\_\_\_ years old;
3. The name of my company is \_\_\_\_\_ located in \_\_\_\_\_ City.
4. My position in this company is \_\_\_\_\_ and I have been in position for \_\_\_\_\_ years.
5. I have been in mentoring industry or education business for \_\_\_\_\_ years.
6. My degree is: \_\_\_\_\_ Bachelor's degree, \_\_\_\_\_ Master's Degree, \_\_\_\_\_ PhD
7. Description of my job responsibility:

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8. Is developing strategies part of your responsibility in the team or company?

\_\_\_\_\_ Yes, \_\_\_\_\_ No

9. How important is a strategy in dealing with challenges from COVID-19 and the Double Reduction Policy? (1 is the lowest and 5 is the highest)

\_\_\_\_\_ 1, \_\_\_\_\_ 2, \_\_\_\_\_ 3, \_\_\_\_\_ 4, \_\_\_\_\_ 5

**Thank you for completing this questionnaire! Your time and participation are very much appreciated, and will contribute to a growing knowledge base on Chinese business leaders' strategies of dealing with crisis.**

## **Appendix C: Interview Protocol Based on Research Questions**

Goal: I want to use the interview (including the critical incident technique) to explore how Chinese business leaders in the tutoring industry make sense of the double crises, what strategies they develop to address the challenges, and how they learn to think strategically while they are developing these strategies.

### **How do the business leaders in tutoring companies make sense of the complexities of the crisis consisting of COVID-19 and the Double Reduction Policy?**

1. As someone responsible for the strategy of your team/organization, how do you perceive the double crises of COVID-19 and the Double Reduction Policy in the past two years?
2. It was a difficult time for everyone in the tutoring industry. Can you share with me what difficulties or challenges you experienced in the past two years amid the double crises?

### **What strategies do the business leaders develop to adapt to the new environment?**

3. In the face of difficulties and challenges, what were your most important goals?
4. What strategies did you develop to achieve your goals and adapt to the new environment?

### **How do the business leaders learn to think strategically while they are adapting to the new environment?**

5. Can you share one story in which you succeeded or failed to develop a good strategy for your team or company? Can you tell me the situation, your task, your action, and the result in detail?
6. Describe for me how you made this decision. How did you make the decision?
7. What beliefs or principles did you hold fast when you were dealing with the challenge?
8. When you recall it now, what critical insights have you learned from the experience?

9. What would you do differently if you were to do it again?

**What other factors help or hinder the business leaders' learning to think strategically?**

10. What other factors helped you formulate strategies to adapt to the new environment?

11. What factors got into the way of developing strategies in the face of challenges?

## **Appendix D: Focus Group Discussion Protocol**

Goals: In this research project, I intend to use focus group discussions to gain more perspectives on participants' shared experiences and insights into developing good strategies or approaches and inspire them to expand their views based on each other's conversations. I will also invite them to discuss the factors that help or hinder their strategy development.

### **Building trust**

1. Can you kindly share your name, the city you live in, the company you work for, and your current position in the company?

### **Developing strategies**

2. You have tried different approaches to dealing with the challenges in the crises. What worked well for your team and your organization?
3. What are the critical steps to develop a good strategy or approach?
4. What new insights have you gained from our conversation just now?

### **Reflecting other factors**

5. Besides the critical steps, what other factors contributed to developing a good strategy or approach?
6. What handicapped the development of a good strategy or approach?

## Appendix E: Tables of Aggregated Data in Response to Research Questions

RQ1: What perception they had of COVID-19 and DRP?

Participant	Perception of COVID-19	Perception of the DRP
Sam	-A repeated historical phenomenon -Should always be prepared for virus (Neutral)	-Supportive -A hard landing -An opportunity for collaboration -Helpful for K-12 students' development (Positive)
Amy	-Unpredictable but not unusual event; (Neutral)	-Predictable event; -Exposing previous problems (Positive)
Jim	-Once-in-a-life-time Challenge -wide and profound impact on all industries -Anxiety and uncertainty (Negative)	- Disastrous Impact - Anxious and uncertain (Negative)
Ling	- A normal phenomenon - Universal test (Neutral, positive)	- A dramatic but positive change (Positive)
Andy	- Unexpected and unstoppable event (Neutral, negative)	-Indirect impact - brought more competition (Neutral, positive)
May	-Significant impact on in-person education business - Complex but knowable (Negative)	- Direct impact on their business - Predictable and understandable (negative)
Tim	-Promote online education greatly -Complex situation (Positive, positive)	-Shocking and complex -Beneficial in the long term (Negative, positive)
Jack	- Unexpected but normal events - Good for development of crisis management (Neutral, positive)	- A national and beneficial policy - Deal with it (Negative, positive)



Participant	Perception of COVID-19	Perception of the DRP
Jackie	An opportunity for entrepreneurship development (Positive)	Minor negative impact (Neutral)
Joe	Normal crisis (Neutral)	Beneficial for Chinese education (Positive)
Jane	No relevant data (Neutral)	An opportunity for reflection and further development (Positive)
Chuck	Limited negative impact (Neutral)	-Disastrous impact at first; -An opportunity for personal and org development (Negative, positive)
Leo	-A contingent situation; -Limited negative impact -Promoted online education (Neutral, positive)	-Disastrous impact on subject-tutoring service (Negative)
Tom	Returning to normal (Neutral)	-A predictable and necessary policy -Beneficial for Chinese education in the long term (Neutral, positive)
Jacob	Enormous negative impact on Chinese economy (Negative)	Devastating impact on subject-tutoring industry (Negative)

RQ2: What strategies did they describe using to deal with the challenges caused by COVID-19 and DRP?

Participant	Focus the core problems	Stay positive with a growth mindset	Exploring other business opportunities	Secure financial safety for crisis	Take key stakeholders' interest into consideration	Cultivate enhanced awareness of risks

Participant	Focus the core problems	Stay positive with a growth mindset	Exploring other business opportunities	Secure financial safety for crisis	Take key stakeholders' interest into consideration	Cultivate enhanced awareness of risks
Frequency	20 (11/15)	19(11/15)	15 (9/15)	14 (10/15)	18 (7/15)	12 (8/15)
Sam	3	2	0	1	1	1
Amy	1	2	0	1	0	1
Jim	1	2	1	2	0	3
Ling	1	4	4	2	2	0
Andy	3	0	1	1	2	1
May	0	1	1	0	0	1
Tim	2	0	0	1	0	0
Jack	0	0	2	0	0	1
Jackie	0	2	0	0	0	3
Joe	1	1	1	0	1	0
Jane	4	4	0	3	3	0
Chuck	2	0	1	1	3	1
Leo	0	0	3	1	0	0

Participant	Focus the core problems	Stay positive with a growth mindset	Exploring other business opportunities	Secure financial safety for crisis	Take key stakeholders' interest into consideration	Cultivate enhanced awareness of risks
Tom	1	0	0	1	6	0
Jacob	1	0	1	0	0	0

RQ3: How did they describe learning to think strategically while adapting to the new environment?

Participant	Quick and frequent reflection	Learning from relevant experience	Systems thinking	Trials and errors	Metaphorical thinking	Critical reflection
Frequency	15 (11/15)	23 (12/15)	15 (9/15)	12 (9/15)	13 (9/15)	8 (7/15)
Sam	1	2	0	1	0	1
Amy	0	0	1	0	1	0
Jim	3	2	0	0	0	1
Ling	0	1	0	1	1	0
Andy	1	3	3	2	3	2
May	1	2	0	0	0	0
Tim	2	1	2	1	2	0
Jack	1	4	2	1	1	0
Jackie	2	0	1	0	1	0

Participant	Quick and frequent reflection	Learning from relevant experience	Systems thinking	Trials and errors	Metaphorical thinking	Critical reflection
Joe	1	1	0	0	0	1
Jane	1	0	2	2	2	1
Chuck	0	3	2	2	0	1
Leo	0	1	0	1	1	0
Tom	1	1	1	0	0	0
Jacob	1	1	1	1	1	1

RQ4: What other factors that hindered or helped their learning to think strategically in a time of crisis?

Participant	Policies and regulations	Relationship	Extensive reading
Frequency	15 (9/15)	11 (9/15)	5 (5/15)
Sam	1	1 (friends)	1
Amy	0	0	0
Jim	2	1 (friends)	1
Ling	1	1 (Spouse)	0
Andy	1	1 (friends)	1
May	2	1 (Spouse)	0

Participant	Policies and regulations	Relationship	Extensive reading
Tim	0	0	0
Jack	0	2 (Spouse/business partner)	1
Jackie	0	2 (Spouse/business partner)	0
Joe	0	0	0
Jane	0	1 (Spouse)	0
Chuck	2	0	0
Leo	2	0	1
Tom	1	1 (friends)	0
Jacob	3	0	0