

Cultivating Leaders of Learning Organizations

A Senior Honors Thesis

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### **Abstract**

Over the last decades, there have been many changes in the business world that are associated with 52 percent of Fortune 500 companies either going bankrupt, being acquired by other companies, or ceasing to exist. One critical change is the transformation of the economy into a knowledge-based economy, where information and learning are key drivers of economic growth and productivity. In order to survive and thrive in this new business world order, many argue that organizations need to shift their focus to learning-related assets, eventually transforming into learning organizations. The purpose of this study is to explore how the concept of the learning organization is operationalized in practical terms in order to facilitate creating and nurturing it. While specific systems and processes are essential for its creation, the core of an organization is its people. My study examines the personal qualities that leaders of learning organizations should possess, and the techniques through which these qualities can be developed, through interviews with experts in the field, practicing the values of learning organizations in either academic or business contexts. The findings of this study suggest that curiosity, collaboration, self-awareness, and flexibility are the most essential qualities for leaders of learning organizations. These qualities can be developed through a variety of techniques involving asking questions, self-reflection, sharing information or engaging in conversation, stepping outside of one's comfort zone, and practicing mindfulness.

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### Cultivating Leaders of Learning Organizations

Since 2000, 52 percent of Fortune 500 companies have either gone bankrupt, been acquired, or ceased to exist (Wang, 2014). Experts claim that this turnover among big companies is not a new phenomenon (Stangler & Arbesman, 2012), and that it will even continue to increase, as society and the economy keep changing (Bonnet, Jerome & KVJ, 2015). One of the greatest changes in the past decade is the shift of the economy into a knowledge-based economy that has redefined how organizations and individuals operate, and has reshaped the relationship between work and learning (Burton-Jones, 1999).

This alarming trend indicates the need for organizations to shift their focus to learning-related assets and to eventually transform into what researchers have labeled as learning organizations – organizations that are able to adapt to changes, learn from mistakes and failures, create and transfer new knowledge, and modify their behavior in a manner that leads to insightful improvement (Senge, 1990; Garvin, 1993). Because of the aforementioned properties, learning organizations are more likely to survive and thrive in ever-changing environments, and particularly in the knowledge-based economy, where information and learning are key drivers of economic growth (Yang, 2009).

The key to creating a learning organization is having people with attributes and qualities that reflect the core values of this type of organizations. Past studies have focused on either determining the principles (Senge, 1990) and dimensions (Watkins & Marsick, 1997) of a learning organization, or on identifying the necessary building blocks to form a learning organization (Garvin, 1993), in an effort to establish the concept's theoretical framework. However, prior research has not explored how these principles, dimensions, and blocks translate into something more tangible, such as qualities that

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leaders of learning organizations should possess, and how these qualities can be developed. For example, even though both Senge (1990) and Wen (2014) talk about team learning as a principle of a learning organization, they do not refer to qualities that individuals should possess to engage in successful team learning or to how these qualities can be developed.

Experts' opinion on the most important qualities that leaders of learning organizations, and techniques to develop them, are valuable for higher education executives and the business world. This is because learning organizations will be more likely to succeed in current and future challenging times, and in a knowledge-based economy, where learning-based assets are a competitive advantage. Cultivating leaders of learning organizations is critical, since they can be the greatest asset for building and nurturing a learning organization. The operationalization of the learning organization as a concept will render the creation of learning organizations less complex and more feasible.

The purpose of this thesis is to explore how the concept of the learning organization is operationalized through the identification of the most important qualities that leaders of learning organizations should possess, and how these can be developed. More specifically, I first studied what experts in the field of learning organizations think are the most important personal qualities of leaders of learning organizations, associated with the theoretical findings of past research. Establishing these qualities is a necessary step to determine techniques and methods that could be used to cultivate leaders of learning organizations. The qualities are the mediating factor between abstract, theoretical principles and their operationalization in techniques, used to transform students or employees into leaders of learning organizations. Thus, the research questions

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of my honors thesis are: “What do experts in the field of learning organizations think are the most important qualities for leaders of learning organizations to possess?” and “How do they operationalize these qualities in their day-to-day practice in an effort to develop leaders of learning organizations?”

### **Literature Review**

In the past, organizations focused on tangible assets such as land, equipment, and financial capital, to survive and compete against one another. However, in the current knowledge-based economy where growth is dependent on the quantity, quality and accessibility of information (“Knowledge economy”, n.d.), organizations’ focus should shift to intangible, learning-based assets, such as innovations and intellectual capital. Hence, transforming into a learning organization, the core of which is learning-based assets, will be the most sustainable competitive advantage for organizations (Yang, 2009). Thus, the question of how to develop and nurture a learning organization is a critical one.

Answering this question requires delineating the core elements of learning organizations. Doing so involves taking a deeper dive into past research, and particularly into Peter Senge’s (1990) theoretical framework, introduced in his book *The Fifth Discipline*. Senge is the founder of the term ‘learning organization’ and set the foundation on which other scholars, such as Garvin (1993) and Watkins and Marsick (2003), built upon, forming new frameworks, strategies and tools. The findings of each of these scholars are summarized in Table 1 below, in which each column comprises the different components that complete each theoretical framework.



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Table 1: The elements of the three main theoretical frameworks

Senge's Dimensions (1990)	Garvin's Building Blocks (1993)	Marsick & Watkins' Dimensions (2003)
Personal Mastery	Systematic Problem Solving	Opportunities for Continuous Learning
Shared Vision	Experimentation	Inquiry and Dialogue
Control of Mental Models	Learning from Past Experiences	Collaboration & Team Learning
Team Learning	Learning from Others	Systems that Capture/Share Learning
Systems Thinking	Transferring Knowledge Effectively	Collective Vision
		Connection of the org. with its environment
		Strategic Leadership for Learning

### Learning Organizations

Senge (1990) first defined the term “learning organization” to be “an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together (Senge, 1990, p. 3)”. Reflecting on this definition, Senge established five disciplines that inspired and influenced Garvin’s (1993) and Watkins and Marsick’s (1997) theoretical findings:

#### **First Discipline: Personal Mastery.**

Senge’s first principle is personal mastery, which is the passion for always growing and improving your skills and capabilities, thus getting one step closer to your potential. Personal mastery can be achieved through a combination of two aspects. The first aspect is a clear personal vision; knowing what is important to you, and what your

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aspiration for the future is. The second aspect is an accurate, insightful view of your current reality; being aware of where you are relative to where you want to be. The gap between these two aspects is called creative tension. People who have high personal mastery are motivated to use this creative tension as a source of energy to grow (Senge, 1990). An organization could encourage its employees to use this creative tension by providing opportunities for ongoing education and growth. This is one of the seven dimensions of a learning organization discussed in Marsick and Watkins (2003).

Personal mastery also requires one to learn from past experiences in order to reflect on insights and lessons that may be useful in the future. Garvin (1993) refers to this as his third building block, which is as important for personal mastery as his fourth building block: learning from others (Garvin, 1993). “Others” does not only include other members of the organization, but also people outside of one’s immediate environment, and even competitors. “Benchmarking is an ongoing investigation and learning experience that ensures that best industry practices are uncovered, analyzed, adopted, and implemented” (Camp, 1989, p.12). By benchmarking oneself, or one’s company to “others”, we are more likely to learn what others are doing better, and learn new ways to improve our skills and grow.

### **Second Discipline: Shared Vision.**

Senge’s second principle involves cultivating a shared vision, which becomes a source of power and energy that gives coherence to people’s goals and tasks, and fosters long-term commitment. In order to build a shared vision, employees should be encouraged to explore and discuss their personal visions, in which personal mastery plays

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a key role. Shared vision should reflect all employees' personal visions; it needs to be based on common caring, commitment and honesty (Senge, 1990). People need to be involved in the process of setting and implementing the joint vision (Marsick & Watkins, 2003).

### **Third Discipline: Control of Mental Models.**

Mental models are deeply held internal beliefs and assumptions of how the world works, which shape the way we think and act. They can be an obstacle in shaping a learning organization as they can lead to misguided beliefs and actions, which could potentially limit the acquisition of new knowledge and skills. Being aware of our mental models can lead to a clearer picture and thorough understanding of our own assumptions, and how these influence how we think and act. Senge proposed three interdependent solutions: becoming more aware of your thinking and reasoning (reflection), making your thinking and reasoning more visible to others (advocacy), and questioning and learning through others' insights (inquiry) (Senge, 1990). This is also one of Marsick and Watkins' (2003) dimensions of a learning organization, which encourages people to create a culture to support questioning, feedback and experimentation. Experimentation is discussed as one of Garvin's (1993) building blocks. Constantly finding new ways of doing things, we are more likely to detect how mental models affect our beliefs and actions.

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### **Fourth Discipline: Team Learning.**

Senge's fourth principle is team learning. The fundamental characteristic of team learning is the development of *synergy*, defined by the commonality of purpose, a shared vision, and an understanding of how to complement one another's efforts. While shared vision and personal mastery are necessary principles of team learning, members of the team should also understand how to "play together." This requires constructive dialogue during which all participants must avoid holding or relying upon assumptions, and constantly question and challenge their viewpoints (Senge, 1990). Collaboration and team learning are also discussed in Marsick and Watkins (2003) as a dimension of a learning organization, where individuals are expected to learn together.

### **Fifth Discipline: Systems Thinking.**

Senge's final discipline is the practice of systems thinking. Adopting systems thinking requires considering organizations as systems, rather than paying attention to the different parts and elements. This is because, according to systems thinking theory, the sum of all parts is not equivalent to the functioning of the whole system. For example, instead of just focusing on functions and roles demonstrated by lines and boxes in an organizational design, one should start focusing on the relationships within those networks and the interdependence of members' actions (Senge, 1990). Focusing on the system as a whole rather than on the various parts can facilitate operating under Marsick and Watkins' (2003) fifth dimension, which underlines the importance of connecting the organization to its environment.

### **Past Research on Practical Tools**

The aforementioned past research in the field of learning organizations is aimed at defining this complex concept by establishing the various theoretical frameworks. A number of scholars have more recently tried to build upon the theoretical frameworks in order to create more practical tools in the field. For example, Oudejans et al. (2011) developed the Questionnaire for Learning Organizations (QLO) as a measurement tool of Senge's five disciplines. Additionally, Garvin, Edmondson and Gino (2008) developed the Learning Organization Survey (LOS), a diagnostic survey that can be used to determine how well a company functions as a learning organization. This survey is based on the three building blocks of organizational learning (Garvin, 2008) and focuses on organizational aspects such as processes and practices. The focus on organizational aspects also characterizes Marquardt's (2002) questionnaire, which measures the extent to which an organization is a learning organization, through questions on the training, technological tools, structure, and culture of a company.

Marsick and Watkins (2003) "Dimensions of the Learning Organization Questionnaire" (DLOQ) is intended to measure the same idea, but it is a more holistic approach, including questions on both organizational aspects of learning organizations and individual characteristics of people in learning organizations. It consists of 43 Likert-scale statements, 20 of which address the individual and team/group levels, with the remaining 23 addressing the organizational level. In this way the survey places an equal weight on the role of individuals/teams and of organizational aspects in the creation and nurturing of learning organizations.

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While these practical tools have been helpful in understanding what a learning organization is, they are not particularly useful for individuals who are trying to build and preserve a learning organization. What is missing from past literature is the operationalization of the concept of the learning organization in a way that renders its creation and maintenance more feasible and clear. My proposed way of operationalizing the learning organization focuses on the role of the individual/teams by firstly determining the most important personal qualities that leaders of learning organizations should possess, and then identifying ways that these qualities can be developed in students and employees.

“Leaders” does not only refer to formal positions at the top of the hierarchy. In fact, leadership is something that is present in all levels of an organization. The ‘tempered radical’ framework (Meyerson, 1995) highlights the importance of ‘bottom-up’ and ‘everyday leadership’ that occurs within businesses. Therefore, in my analysis I use the term “leader” to refer to both top-down and bottom-up leadership. Leaders of learning organizations are individuals who can create, maintain, and thrive in this type of organizations.

In order to identify the qualities and the techniques required to develop them, I will interview experts in the field, in educational and business contexts, as explained in my methodology below. Developing an instrument that includes the most important qualities and techniques that one can use to develop them will be valuable since it will offer a practical way of operationalizing the learning organization to facilitate any such development. Transforming into a learning organization can be a competitive advantage, increasing the chances that the organization will survive and thrive in an ever-changing,

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knowledge-based economy. It has also been found to correlate with improved financial performance and business results (Marsick and Watkins, 2003).

### **Methodology**

#### **Participants and Setting**

The participants in my study are experts in the field of learning organizations in educational and business contexts at Northwestern University and in the broader Chicago area. I define experts to be individuals whose work and/or research in educational and business contexts is related to the concept of a learning organization, or who transmit the principles of the learning organization through teaching, or through leading a team in a business context. More specifically, and using Figure 1 as an illustration, I will interview professors and executives, whose academic/professional experience (of minimum 5 years) demonstrates a thorough comprehension of learning organizations' literature and practice. My participants were assigned to the following three groups, according to their academic/professional background (See Figure 1).

Participants who were assigned to the first group transmit the principles of the learning organization both through teaching as professors at Northwestern University, and through leading or coaching a team in a business context. This group will be referred to as *Teaching and Leading*, or T&L. The second group consisted of individuals who transmit the principles of the learning organization mainly through teaching as professors at Northwestern University, whereas the third group consisted of individuals who transmit the principles of the learning organization mainly through leading or coaching a team in a business context. The second group will be referred to as *Teaching and not*

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*Leading*, or TNL. The third group will be referred to as *Leading and not Teaching*, or LNT. Interviewing members of these three groups will enable me to begin to understand how experts in the field of learning organizations with different roles, either educational, business, or both, think about the necessary qualities that leaders of learning organizations possess and how these can be developed. For the purpose of my study focusing on the input of experts in the field of learning organizations, interviewing a control group with individuals who don't transmit the aforementioned principles in either an academic or business context (group 4) would not add to my findings.

Figure 1: Table of Participants

Leading/ Coaching Teaching	Yes	No
	Yes	No
Yes	Group 1 (T&L) Teaching & Leading/Coaching	Group 2 (TNL) Teaching but not Leading/Coaching
No	Group 3 (LNT) Leading/Coaching but not Teaching	Group 4 Neither Teaching Nor Leading/Coaching

### Data Collection

I interviewed three individuals from each category, a total of 9 participants. The interviews involved two 25-minute phases. During the first part of the interview, participants responded to an adapted version of Marsick and Watkins' (2003) "The Dimensions of the Learning Organization Questionnaire" (DLOQ). DLOQ was the most



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effective tool to use in my study due to its focus on the role of both individual/teams and of organizational aspects, in the creation or nurturing of learning organizations. I adapted the DLOQ to include the 10 most relevant statements taken from the ones addressing the individual and team levels (See Appendix A). Each participant read the statements one at a time and was asked to think of qualities (in the form of nouns or short phrases) that are necessary for each statement to be accurate. For example, the first statement is “In my organization, people openly discuss mistakes in order to learn from them” (Marsick & Watkins, 2003). Some examples of qualities that I expected my interviewees to mention concerning this statement included self-awareness, open-mindedness, and humility. I encouraged the participants to repeat the same qualities if they deemed it necessary. A short conversation was sometimes necessary to break down some more complex qualities, such as growth mindset. Discussing each of the 10 statements with each participant, I compiled a list of all the qualities that experts in the field believe individuals who can thrive in learning organizations should possess.

During the second part of my interview, I asked each participant to select two of the qualities that they mentioned in Part 1, which they think are the most important for a leader of a learning organization to possess. I first asked them to explain why they consider the specific qualities particularly important. Next, I asked follow-up questions on these two qualities (See Appendix B). More specifically, I asked open-ended questions such as “Why are these qualities important?”, “How do you operationalize [quality] in your everyday practice?”, “What are some techniques that you use to ensure that your students/employees develop [quality]?”, and “How would you know that your students/employees have developed [quality]?” In the case of group 1 (T&L), namely of

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individuals who transmit the principles of the learning organization through both teaching and leading or coaching, I asked for two different sets of answers; one for the students they teach and one for the individuals they lead or coach in the business context. All interviews were recorded and transcribed. For purposes of anonymity, I assigned pseudonyms to the participants of my study.

### **Data Analysis**

For the data analysis of the first part of the interviews, I combined the list of qualities that each participant shared and found synonyms or cases when two participants used a different noun/phrase to describe the same quality. I then quantitatively analyzed the lists, counting the number of qualities each participant mentioned, what qualities were mentioned more often than others, the number of qualities mentioned for each statement and the averages across participants. I also tried to find patterns in the responses provided by the three different groups of participants.

For the data analysis of the second part of the interviews, I coded for each quality that my participants picked as most important. Within these initial codes, I used process coding, and a second set of codes emerged inductively, to help uncover the different methods and techniques that the interviewees shared. Process coding is a helpful coding technique in this particular study because the results include actions, denoting techniques that the participants use (Miles, Huberman & Saldana, 2013).

### **Results and Discussion**

#### **Quantitative Analysis**

The 9 participants mentioned a total of 324 qualities. After the combination of synonymous qualities and accounting for the ones repeated multiple times, 95 unique qualities were found. The average number of qualities mentioned per person is 36 with duplicates (ranging from 21 to 57) and 24 without duplicates (ranging from 17 to 36). I used 10 statements of the DLOQ. The average number of qualities mentioned per statement is 3.6. The average number of times a quality was mentioned was 3.4, ranging from 1 to 18. Interestingly, participants of group 3 (LNT) mentioned the most qualities (139 with duplicates or 59 without duplicates), whereas group 2 (TNL) participants mentioned the fewest qualities (82 with duplicates or 43 without duplicates).

Curious and collaborative were the qualities mentioned the most. More specifically curiosity was mentioned 18 times and collaboration was mentioned 17 times; both qualities were mentioned by 7 of the 9 participants. Self-awareness and flexibility were also popular qualities, mentioned 13 and 11 times respectively. Being adaptable, humble, and patient were each mentioned 10 times, while being receptive was mentioned 8 times. Finally, courage, empathy, forward-thinking, and trusting were mentioned 7 times. A complete list of all qualities mentioned in this study, and the number of times each quality was mentioned, can be found in Appendix C.

There are similarities and differences between these findings and research on the most important leadership qualities. While courage, empathy, and adaptability/flexibility are qualities that are included in both, the most popular qualities of this study—namely curiosity and collaboration—are not mentioned explicitly in the various lists of leadership

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qualities. Instead of highlighting the importance of collaboration, Bethel (1990) underlines that an effective leader is a team builder, which reveals his power to bring his followers together. Similarly, curiosity is not mentioned explicitly, but both Cichy & Schmidgall (1996) and Minter (2010) talk about being inquisitive and creative as important leadership qualities, both of which require a level of curiosity. Furthermore, there were a number of qualities—such as integrity, global-thinking, and confidence—which were considered to be less important for the participants of this study than the aforementioned studies on leadership qualities. These dissimilarities showcase the different qualities that are necessary for leaders in general and for leaders in learning organizations, with the former putting an emphasis on a leader's power, while the latter emphasize learning.

Both participants of Group 1 (T&L) and 3 (LNT) considered curiosity to be the most important quality, whereas participants of Group 2 (TNL) considered humility as the most important quality. They specifically talked about intellectual humility: “knowing and owning one's limitations and seeing the value of growth”, which is particularly important in a learning environment (Paul & Elder, 2002), where “the idea that we will never be able to know everything should be a reason to continue to learn and explore new things” (Anne from Group 2 – TNL, p. 2) rather than a discouragement. Being collaborative was mentioned multiple times by all three groups, showcasing the importance of team learning in both academic and business contexts. Self-awareness was mentioned multiple times by participants of Groups 2 (TNL) and 3 (LNT), while being flexible seemed more important for Group 1 (T&L) participants, who face the challenge of balancing their academic and business responsibilities. Finally, being patient was more

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important for Group 3 (LNT) participants. This finding is consistent with research on the benefits of patience in the workplace, that may include enhanced productivity, improved quality of work, and increased pleasantness (Comer & Sekerka, 2014).

During the second part of the interview, each participant picked two qualities of those that they mentioned in Part 1 to further discuss during Part 2, as they considered them the most important for individuals who thrive in learning organizations. Surprisingly, the qualities that participants chose as the ones they wanted to elaborate on were not necessarily the ones mentioned the most (See Table 2). More specifically, from the 18 qualities discussed in Part 2, less than half were mentioned more than 5 times in total during Part 1, while there were 7 qualities that were mentioned just 2, 3, or 4 times.

This difference could be partly explained through the sequence of the statements creating a recency effect (Baddeley & Hitch, 1993), since it is possible that some participants picked qualities that they mentioned during one of the last statements. This is a limitation of my study design, which could have been avoided with a randomized sequence of the 10 statements in each interview. However, the vast majority of qualities discussed in Part 2 were just mentioned once, reinforcing the validity of my findings. More specifically, while 3 participants picked curiosity and 2 chose humility, all the other qualities mentioned in Part 2 were picked once.

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Table 2: Comparing the number of times each quality discussed in Part 2 was mentioned in Part 2 compared to Part 1

Quality	Times Mentioned in Part 2	Times Mentioned in Part 1
<b>Curious</b>	3	18
<b>Humble</b>	2	10
<b>Collaborative</b>	1	17
<b>Self-Aware</b>	1	13
<b>Receptive</b>	1	8
<b>Self-Reflective</b>	1	6
<b>Appreciating Differences</b>	1	5
<b>Willing to Fail</b>	1	5
<b>Ambitious</b>	1	4
<b>Resilient</b>	1	4
<b>Compassionate</b>	1	4
<b>Vulnerable</b>	1	3
<b>Discerning (Giving feedback)</b>	1	3
<b>Inclusive</b>	1	3
<b>Emotional Intelligence</b>	1	2

### **Qualitative Analysis**

Relating the qualities mentioned most with Senge's (1990), Garvin's (1993), and Marsick & Watkins' (2003) work on the theoretical frameworks used to define the concept of the learning organization, the vast majority was very pertinent. This is not surprising since Marsick & Watkins (2003) used Senge's work to form the statements of the DLOQ, 10 of which I used during my interview. For example, being self-aware (mentioned 13 times) and self-reflective (mentioned 6 times) are necessary for establishing an accurate, insightful view of one's current reality relative to where one wants to be, which is a step to attaining personal mastery. Both of them are also important for the control of one's mental models (Senge, 1990). Self-reflection is particularly valuable when learning from past experiences or from others (Garvin, 1993). Collaboration (mentioned 17 times), collectiveness (mentioned 5 times), respect (mentioned 6 times), and the ability to appreciate differences (mentioned 5 times) are important qualities for many different disciplines, building blocks, and dimensions of a learning organization. These include team learning and shared vision, which are both mentioned in Senge (1990) and Marsick & Watkins (2003). Finally, being curious (mentioned 18 times) and receptive (mentioned 8 times) are necessary to learn from others, to experiment (Garvin, 1993), and to take advantage of the opportunities for continuous learning (Marsick & Watkins, 2003).

However, some of the qualities that the participants repeated multiple times were not particularly valuable or even beneficial according to the aforementioned theoretical frameworks. For example, during the process of developing an organization's shared vision (Senge, 1990) or collective vision (Marsick & Watkins, 2003), or one's one

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personal vision, individuals need to be more ambitious (mentioned 4 times) and less humble (mentioned 10 times). Similarly, for the successful functioning of systems thinking (Senge, 1990) or the connection of an organization to its environment (Marsick & Watkins, 2003), being self-reflective is less important than being collective or paying attention to the patterns of relationships, events, and actions. It is true that everything should exist in moderation, since having most of these qualities in excess can have a negative effect. This is particularly accurate with being overconfident since it can be detrimental to team learning (Senge, 1990), to learning from others (Garvin, 1993), and to being open to opportunities for continuous learning (Marsick & Watkins, 2003).

During the second part of my interview—where participants chose two qualities to further discuss—participants mentioned a number of techniques that they use in their academic and/or business setting to help their students, co-workers, or mentees to develop the qualities that they considered to be the most important for leaders of learning organizations. The following techniques can therefore be used to cultivate leaders of learning organizations. During the data analysis of the interviews, I formed five codes that acted as categories of the different activities which participants mentioned as techniques for developing the qualities of their choice. The first code/category consisted of techniques that involved asking questions; the second included self-reflection techniques; the third consisted of techniques that involved sharing information or engaging in conversation; the fourth included techniques that encourage individuals to step outside of their comfort zone; the fifth category of techniques involved mindfulness.



### **Techniques involving asking questions.**

Participants of all three groups mentioned techniques that involved asking questions. These techniques can be used to develop one or more of the chosen qualities. This finding is consistent with Carmeli et al. (2009) and Graesser et al. (1994) who highlighted that organizational learning and student achievement, respectively, are correlated to asking questions. According to the findings of my study, techniques that involve asking questions can be used to make one more curious, humble, receptive, resilient, and self-aware, as well as more willing to fail, and to appreciate different perspectives. More specifically, Katie from the Teaching & Learning (T&L) group encourages her students to prepare questions on what they are learning, and to always look at problems as questions that need to be researched. She does this in order to increase their curiosity. Similarly, Sarah (T&L) encourages both her students and her co-workers to ask many questions about problems that arise in order to discover their root cause. Asking questions such as “so what?”, “how do you know that?”, and “what are some occasions where your answer/solution is not valid?” is a technique that Ben from the Teaching and not Leading (TNL) group uses to help his students develop intellectual humility (Ben, p. 2). Getting to know and trying to understand one’s co-workers or mentees by asking questions about their experiences is a technique that Tom (TNL) suggests to facilitate the appreciation of differences, which he deems essential for an effective leader.

Likewise, David from the Leading and not Teaching (LNT) group asks his co-workers challenging questions such as “what’s another way to solve this problem?”, “what other ideas did you consider?”, and “what are some limitations of the solution that

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you are proposing?” to make them more receptive to the idea that there is no single right solution (David, p. 3). This technique also helps David’s co-workers and mentees to be more willing to fail and to make mistakes. David argues that having no single right answer to a problem encourages individuals to provide multiple solutions, to debate the trade-offs of each option, and to learn from this process and move on to the next challenge. Asking questions like “so what?” and “what will the effects of this action/event be in the future” is a successful technique that Hannah (LNT) uses to build her and others’ resilience, and to promote a future-focused orientation and an ability to see the big picture of things (Hannah, p. 2). Hannah encourages her co-workers to ask questions about their performance and to seek feedback as another technique to develop their self-awareness.

### **Techniques involving self-reflection.**

Members of all three groups also mentioned techniques to encourage self-reflection. Past research on self-reflection highlights its importance for transformative learning, indicating that the most significant learning experiences throughout one’s life involve self-reflection: “reassessing the way we have posed problems and reassessing our own orientation to perceiving, knowing, believing, feeling and acting” (Mezirow, p. 4). In my study, self-reflection techniques were mentioned in relation to the development of curiosity, self-reflection, humility, resilience, and compassion. More specifically, Katie (T&L) tries to develop her students’ and co-workers’ curiosity by asking them to reflect on their experiences, on what they have learned after an exercise or project, and what they still need to learn. Similarly, Susan (TNL) helps her students become more self-

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reflective by developing goals for class' tasks. The students can update the goals throughout the course of the class; they get feedback from their professors and classmates on their progress. A final growth statement forces them to think about what they learned, what they still need to learn, and the ways in which they can grow. Tom (TNL) helps his students develop humility by asking them to self-reflect on past mistakes and failures and to consider what they have learnt from them. He believes this is the 'richest opportunity for learning'. Hannah's (LNT) self-reflection technique incorporates humor to develop resilience; she suggests finding the 'humor spots', and saying: 'we are going to be laughing about this later'.

Nick (LNT) uses self-reflection techniques to help his mentees develop compassion. He uses the analogy of a flashlight as our attention. "Whatever is illuminated by this light represents our awareness. Where we shine the light represents our intention" (Nick, p. 4). He asks his students to reflect on what's present, where they are shining the flashlight, and whether it is intentional or not. From there, he asks them to acknowledge parts and feelings that seem unproductive and urges his students to welcome them. The self-reflection he is looking for is similar to the following passage, where he personifies negative feelings: "Oh Worry, I get it, this is important; you are ambitious. I've got goals and I don't want to miss out. But focusing on feeding you right now isn't going to help me. I know why you are here. But go have a seat. Join Fear and Doubt and Guilt. In the meantime I am shining my light on learning" (Nick, p. 5). He admits that this technique of developing compassion takes energy but with practice it becomes easier and more effective. Nick also highlights the difference between stories and facts as another way of developing compassion. He mentions that stories can go

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beyond the facts, leading to fiction, but that fiction is not necessarily false. Sometimes stories are future-focused, such as “I am going to win an award”. You may not have facts to support that story, but it is still productive. On the other hand, saying: “If I fail this, I am going to get fired” is an unproductive story (Nick, p. 6). Self-reflection can help one distinguish between these two.

### **Techniques involving sharing information or engaging in conversation.**

The majority of techniques mentioned involve sharing information or engaging in conversation with one’s co-workers or classmates. Most of these techniques were mentioned by participants of Group 1 (T&L), showcasing the importance of effective dialogue and conversation in the classroom setting. Katie (T&L) creates peer-groups in both professional and educational settings and encourages her students/mentees to discuss what they have learned after an activity or project. Her aim is for them to explore different ways of processing information as a way to develop their curiosity. Sarah (T&L) believes curiosity can be built by actively listening to one’s peers and their thought processes. At the same time, one should make one’s own thought process more explicit and determine how the two thought processes differ.

Inclusiveness and collaboration can also be developed through sharing information or engaging in conversation. More specifically, Katie (T&L) encourages her students to read each other’s writing and comment on it by creating blog sites. She believes that this ‘helps broaden people’s horizons’. She also asks her students to complete strength-finder tests and then assigns students to groups according to their different strengths and qualities. She aims to encourage her students to consider and

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discuss different perspectives. According to Hannah (LNT), self-awareness can also be developed through techniques involving sharing information or engaging in conversation. She proposes pausing the conversation during a work meeting to elaborate on each individual's thought process, and to identify the similarities and differences. Thus, the qualities of curiosity, inclusiveness, and collaboration—that are important for leaders of learning organizations—can be developed through techniques involving sharing information or engaging in conversation. Similar techniques involving effective dialogue are found to increase the effectiveness of learning (Wells et al., 2006).

### **Techniques to encourage stepping outside of one's comfort zone.**

Studies have shown that risk-taking behaviors have been associated with learning, especially with language learning (Horwitz et al. 1986), as well as with leadership development (Thoen & Robitschek, 2013). Thoen & Robitschek (2013) argue that growth and change usually involve stepping outside of one's comfort zone. Similarly, many participants of my study mentioned techniques that would make their students or mentees/coworkers 'step outside of their comfort zone' to develop a number of the important qualities they picked. These qualities include curiosity, compassion, ambition, vulnerability, and humility.

Nick (LNT) helps his mentees develop curiosity through an improv class where they are encouraged to step outside of their comfort zone, take risks, and "trust that they have something already present inside of them" (Nick, p. 2). He also teaches a dancing class, once again encouraging people to say yes to new challenges in an effort to help them "plug into their physical sensations" and develop self-compassion. Similarly, Susan

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(TNL) (who teaches in the Engineering school, an environment that is more averse to ambiguity) tries to incorporate class activities and assignments, which involve handling ambiguity in the hope that it will make her students step outside of their comfort zone and accept their vulnerability.

Tom (TNL) asks his students to step outside of their comfort zone in a very different way: through discussing crucible experiences, moments of disappointment, mistakes, and failures as a way of becoming more humble. He argues that Northwestern students “don’t have many venues where they are talking about what didn’t go well. Most of the rest of their lives here are about promoting themselves, building up their resumes, and making themselves appear as good as possible” (Tom, p. 3). Tom himself models humility by being the first to share a crucible experience in his life.

Ben (TNL) believes that he can help his students step outside of their comfort zone and become ambitious by setting high expectations for them; this pushes them to see just how high the bar can be. Ben helps them get there through constructive feedback. He also encourages his students to find their role models. Interestingly, David (LNT) encourages his co-workers and mentees to think outside the box and come up with multiple solutions to a problem. By building time for revision and iteration, he decreases the pressure while making sure that they are still willing to fail and make mistakes.

### **Techniques involving practicing mindfulness.**

Finally, Nick (LNT) argues that practicing mindfulness can be a valuable technique to become more self-compassionate. He asserts that mindfulness is also beneficial for developing the majority of the aforementioned qualities. This happens

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because mindfulness is “a way of rewiring your brain to avoid following unproductive cognitive paths that are programmed to take us to negative emotions and other outcomes”. Mindfulness can be achieved by being intentional with our attention, “whether that is through meditation, paying attention as you walk home, eating your food mindfully, etc.” (Nick, p. 6). Interestingly, past research has focused on mindfulness and its relation to both leadership and learning. Sethi (2009) talks about the importance of mindfulness-based leadership in today’s business world and mindfulness as a key leadership competency. Likewise, Langer (2000) underlines the benefits of mindful learning, by explaining that it involves actively drawing distinctions, noticing new things, and “seeing the familiar in the novel and the novel in the familiar” (Langer, 2000, p.222).

### **Other techniques.**

The focus of my study was on the role of individuals and teams in creating and nurturing learning organizations, exploring the most important personal qualities that leaders of learning organizations should possess, and identifying ways that these qualities can be developed in students and employees. However, some participants mentioned techniques related to organizational aspects, such as processes. More specifically, two participants from group 1 (T&L) mentioned techniques involving technological processes, such as the use of online polls to improve inclusiveness, and the creation of video tutorials and infographics to help employees become more effective and discerning when giving feedback. Finally, another T&L participant mentioned that a mechanism to ensure that combined/group effort is recognized is necessary for the nurture of collaboration.

### **Conclusion**

Experts in the field of learning organizations consider curiosity and collaboration to be the most important qualities for leaders. Self-awareness, flexibility, adaptability, humility, and patience are also thought of as important qualities. While the majority of qualities that the participants of this study mentioned were also found in past literature on leadership, collaboration and curiosity were not explicitly mentioned. This difference showcases an important distinction in the personal qualities that leaders in a learning organization should possess, compared to leaders in other types of organizations. Furthermore, the majority of qualities mentioned were relevant to past research that established the theoretical frameworks of the learning organization as a concept (Senge, 1990; Garvin, 1993; Marsick & Watkins, 2003). However, there were a number of qualities mentioned which were not particularly useful or beneficial for some of the disciplines, building blocks, or dimensions provided in the theoretical frameworks. This disparity could potentially serve as a challenge to the established theoretical frameworks, revealing a gap between theory and practice.

The participants of this study offered a variety of practical techniques that they are using in their academic and/or business contexts to help their students, mentees, and co-workers develop the necessary qualities to become leaders of learning organizations. These techniques were sorted by type, forming the following five categories: techniques that involve asking questions, that rely on self-reflection, that involve sharing information or engaging in conversation, that encourage individuals to step outside of their comfort zone, and that involve practicing mindfulness. The list of essential qualities for leaders of learning organizations and the set of techniques that can be used to develop these



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qualities can be an effective practical tool in training individuals to become leaders of learning organizations.

During the data collection of my study, I discovered the following limitation: my study focuses on identifying the personal qualities that allow individuals to thrive in learning organizations, and explores techniques of how to develop them. However, having people with these attributes is not enough to form and nurture a learning organization. This observation is something that the majority of my participants mentioned during our discussion. Sarah (T&L) expressed this concern in the best way:

For people to openly discuss mistakes in order to learn from them, there are some things that the people need but also some things for the environment [sic.]. In my experience a person can be very good at being open to mistakes, but in an environment that is not open to that, it won't matter.

Ben (TNL) further elaborated on what makes a learning organization. Apart from the individuals with qualities necessary to become agents of learning organizations, Ben argues that the organization also needs specific mechanisms or processes, as well as certain social norms that create a learning culture. However, he indicated that “it is the people who make the organization”, and therefore, they are an organization's most important asset.

Future research on the field can focus on the two other components of the learning organization, namely the mechanisms and the social norms. In order to facilitate the creation and preservation of a learning organization, researchers should study what mechanisms and social norms are essential to this type of organization, and how these can be developed or used. The results of these two studies, combined with the aforementioned findings, would more comprehensively operationalize the learning

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organization. The operationalization of this term would make it easier and more feasible to create and nurture learning organizations. The transformation of an organization into a learning organization would be the most sustainable competitive advantage in the current knowledge-based economy, where the learning-based assets and the growth and effective use of intellectual capital are key drivers of economic growth (Yang, 2009).

### References

- Baddeley, A., & Hitch, G. (1993). The recency effect: Implicit learning with explicit retrieval? *Memory & Cognition*, 21(2), 146-155.
- Bethel, S. M., (1990) *Making a Difference: Twelve Qualities that Make you a Leader*. New York: Berkley Books.
- Burton-Jones, A. (1999). *Knowledge capitalism: Business, work, and learning in the new economy*. Oxford; New York: Oxford University Press.
- Camp, R. (1989) Benchmarking: The search for industry best practices that lead to superior performance. *Choice Reviews Online*, 27(04), 27-2173, p.12.
- Carmeli, A., Brueller, D., & Dutton, J. (2009). Learning behaviours in the workplace: The role of high-quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science*, 26(1), 81-98.
- Cichy, & Schmidgall. (1996). Leadership qualities of financial executives: In the U.S. lodging industry. *Cornell Hotel and Restaurant Administration Quarterly*, 37(2), 56-62.
- Comer, Debra R., & Sekerka, Leslie E. (2014). Taking time for patience in organizations. *Journal of Management Development*, 33(1), 6-23.
- Garvin, D. (1993). Building a Learning Organization. *Harvard Business Review*.
- Garvin, D. Edmondson, A., & Gino, F. (2008). Is yours a learning organization? *Harvard Business Review*, March: 109-116.
- Graesser, A. C., & Person, N. K. (1994). Question Asking during Tutoring. *American Educational Research Journal*, 31(1), 104-37.
- Horwitz, Elaine K., Horwitz, Michael B., & Cope, Joann. (1986). Foreign Language Classroom Anxiety. *Modern Language Journal*, 70(2), 125-132.
- Knowledge economy [Def. 1]. In *Oxford Dictionaries*. Retrieved from [https://en.oxforddictionaries.com/definition/knowledge\\_economy](https://en.oxforddictionaries.com/definition/knowledge_economy)
- Langer, E. (2000). Mindful Learning. *Current Directions in Psychological Science*, 9(6), 220-223.
- Marquardt, M. (2002). *Building a Learning Organization: Mastering the 5 Elements for Corporate Learning*. Palo Alto, CA: Davies-Black Publications.
- Marsick, V., & Watkins, K. (2003). Demonstrating the Value of an Organization's Learning Culture: The Dimensions of the Learning Organization

## CULTIVATING LEADERS OF LEARNING ORGANIZATIONS

- Questionnaire. *Advances in Developing Human Resources*, 5(2), 132-151.
- Meyerson, D. E. (2003). *Tempered radicals: How everyday leaders inspire change at work*. Boston, MA: Harvard Business School Press.
- Mezirow, J. (1992). Fostering critical reflection in adulthood : A guide to transformative and emancipatory learning. *The Canadian Journal for the Study of Adult Education*, 6(1), 86-89.
- Miles, M. & Huberman, M., Saldana, J. (2013). Chapter 4: Fundamentals of qualitative data analysis. In *Qualitative Data Analysis: A Methods Source Book*. Thousand Oaks, CA: Sage Publications, Inc.
- Minter, S. (2010). The Most Important Leadership Quality. *Industry Week*, 259(9), 6.
- Oudejans, S., Schippers, G., Schramade, M., Koeter, M., & Van Den Brink, W. (2011). Measuring the learning capacity of organisations: Development and factor analysis of the Questionnaire for Learning Organizations. *BMJ Quality & Safety*, 20(4), 307.
- Paul, R., & Elder, L. (2002). *A miniature guide for those who teach on how to improve student learning: 30 practical ideas*. Dillon Beach, Calif.: Foundation for Critical Thinking.
- Sethi, D. (2009). Mindful leadership. *Leader to Leader*, 2009(51), 7-11.
- Stangler, D. & Arbesman, S. (2012). What Does Fortune 500 Turnover Mean? *Ewing Marion Kauffman Foundation*.
- Senge, P. (1990). *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York: Doubleday.
- Thoen, M., & Robitschek, C. (2013). Intentional Growth Training: Developing an Intervention to Increase Personal Growth Initiative. *Applied Psychology: Health and Well-Being*, 5(2), 149-170.
- Watkins, K. E., & Marsick, V. J. (1997). Dimensions of the learning organization. Warwick, RI: Partners for the Learning Organization.
- Wang, R. (2014). Sneak Peeks From Constellation's Futurist Framework and 2014 Outlook on Digital Disruption. *Constellation Research*.
- Wells, Gordon, & Arauz, Rebeca Mejia. (2006). Dialogue in the Classroom. *Journal of the Learning Sciences*, 15(3), 379-428.

## CULTIVATING LEADERS OF LEARNING ORGANIZATIONS

- Wen, H. (2014). The nature, characteristics and ten strategies of learning organization. *International Journal of Educational Management*, 28(3), 289-298.
- Yang, B. (2009). Conceptualization and Evolution of Learning Organizations. In T. Torres-Coronas, & M. Arias-Oliva (Eds.), *Encyclopedia of Human Resources Information Systems: Challenges in e-HRM* (pp. 172-177).

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## **Appendix A**

### Interview Protocol – Part 1

(Marsick & Watkins, 2003)

1. In a learning organization, people openly discuss mistakes in order to learn from them.
2. In a learning organization, people identify skills they need for future work tasks.
3. In a learning organization, people help each other learn.
4. In a learning organization, people view problems in their work as an opportunity to learn.
5. In a learning organization, people give open and honest feedback to each other.
6. In a learning organization, people listen to others' views before speaking.
7. In a learning organization, whenever people state their views, they also ask what others think.
8. In a learning organization, people treat team members as equals, regardless of rank, culture, or other differences.
9. In a learning organization, teams/groups focus both on the group's task and on how well the group is working.
10. In a learning organization, teams/groups revise their thinking as a result of group discussion or information collected.

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## **Appendix B**

### Interview Protocol – Part 2

Could you walk me through your reasoning when choosing the most important qualities for a leader of a learning organization?

(Follow-up: Why are these qualities important?)

How do you operationalize [add quality] in your day-to-day practice?

In other words, how do you see [add quality] manifest in your every day work?

What are some techniques that you use to ensure that your students/employees develop [add quality]?

In which ways do you help your students/employees develop [add quality]?

(For group 1 participants) How do these techniques differ in your professional context compared to your instructional context?

How would you know that your students/employees have developed [add quality]?

What are some indicators that [add quality] has been developed?

In other words, what would learning/change look like?

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## Appendix C

List of all the qualities and the number of times mentioned

Quality	Times	Quality	Times	Quality	Times
Curious*	18	Observant	4	Connected	1
Collaborative*	17	Resilient*	4	Creative	1
Self-Aware*	13	Driven	4	Critical thinking	1
Flexible	11	Comfortable with confrontation	3	Execution-oriented	1
Adaptable	10	Discerning*	3	Diligent	1
Humble*	10	Generous	3	Forgiving	1
Patient	10	Honest	3	Helpful	1
Receptive*	8	Inclusive*	3	Hopeful	1
Courageous	7	Intentional	3	Integrity	1
Empathetic	7	Supportive	3	Intuitive	1
Forward-thinking	7	Vulnerable*	3	Non-judgmental	1
Trusting	7	Agile	2	Organized	1
Confident	6	Altruistic	2	Perceptive	1
Good listener	6	Broad-minded	2	Performance oriented	1
Open-minded	6	Caring	2	Persistent	1
Respectful	6	Determined	2	Planner	1
Self-reflective*	6	Diverse	2	Pragmatic	1
Accepting	5	Encouraging	2	Process-oriented	1
Appreciating Differences*	5	Emotional Intelligence*	2	Rational	1
Balanced	5	Growth-oriented	2	Relationship-oriented	1
Bold	5	Introspective	2	Responsive	1
Collective	5	Non-defensive	2	Results-oriented	1
Fair	5	Objective	2	Self-assured	1
Optimistic	5	Risk-taker	2	Task-oriented	1
Willing to fail*	5	Thoughtful	2	Team-oriented	1
Ability to cope with Ambiguity	4	Unselfish	2	Understanding	1
Ambitious*	4	Amenable	1	Ungrudging	1
Attentive	4	Analytical	1	Unobtrusive	1
Communicative	4	Audacious	1	Versatile	1
Compassionate*	4	Authentic	1	Willful	1
Egalitarian	4	Clear	1		
Mindful	4	Concise	1		

\* These qualities were also mentioned during the second part of my interview.