



SCHOOL OF
ECONOMICS AND
MANAGEMENT

Competence Development in a VUCA World:

How to Make Employees Better Equipped for Handling VUCA

by

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Abstract

Several researchers have approached the subject of VUCA and the challenges of operating in a VUCA world. However, previous research seldom addresses specifically how the work can be done or how these qualities and skills can be developed. The purpose of this study is to help professionals responsible for competence development in their work to enable employees to handle a VUCA world. Therefore, the study aims to research how organisations' work with competence development is currently being done and create a deeper understanding of how they can work in the future to enable employees to handle a VUCA world.

The study used a qualitative and deductive research approach. The researchers conducted twelve semi-structured interviews with professionals responsible for competence development in their organisation. The findings revealed several ways in which organisations work targeting individual competence factors that are important in a VUCA world. These were cross-training, job rotation, communicating future needs, learning from experience, conducting workshops and seminars, activities that support and enhance reflection, discussions, learning from others, meeting other employees, diversity and inclusion, reflection and feedback, and self-driven development. The findings indicate that a lack of time and priority, demands on employees and different learning activities and preferences are challenges with the work. The results revealed how organisations can work in the future by sharing knowledge in the organisation, providing fast, accessible, and easy learning material, self-driven competence development, changing the role of professionals responsible for competence development, and facilitating learning and strategic work with competence development.

The researchers conclude that many of the activities target more than one individual competence factor of importance in a VUCA world and that these can be informal and formal activities. There needs to be psychological safety and a learning culture that supports employees in their learning. The study contributes to helping professionals working with competence development as they get an overview of how they can conduct their work and what important aspects need to be considered. The findings can give professionals working with competence development a deeper understanding of what is required of competence development initiatives in a VUCA environment.

Keywords: VUCA, Competence Development, Flexibility, Agility, Adaptability, Multiple Perspectives, Growth Mindset, Self-awareness, Resilience

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Table of Contents

1 Introduction	1
1.1 Background	1
1.2 Problem Formulation	2
1.3 Research Purpose	3
1.4 Research Questions	3
1.5 Delimitations	4
1.6 Outline of the Thesis	4
2 Literature Review	5
2.1 General Search and Selection of Sources	5
2.2 VUCA	7
2.2.1 Definition of VUCA	7
2.2.2 Dealing with VUCA	7
<i>Volatility</i>	8
<i>Uncertainty</i>	8
<i>Complexity</i>	8
<i>Ambiguity</i>	9
2.3 Competence Development	10
2.3.1 Definition of Competence	10
2.3.2 Definition of Competence Development	10
2.3.3 Methods for Competence Development	11
2.3.4 Definition and Research on Adult Learning	12
2.3.5 Adult Development	13
2.4 Individual Competence Factors of Importance When Handling a VUCA World	14
2.4.1 Identifying the Individual Competence Factors	15
2.4.2 Flexibility	16
2.4.3 Agility and Adaptability	17
2.4.4 Multiple Perspectives	17
2.4.5 Growth Mindset	18
2.4.6 Self-awareness	18
2.4.7 Resilience	19
2.5 Methods to Develop the Individual Competence Factors	20
2.5.1 Flexibility	20
2.5.2 Agility and Adaptability	21
2.5.3 Multiple Perspectives	22
2.5.4 Growth Mindset	23
2.5.5 Self-awareness	24
2.5.6 Resilience	25
3 Methodology	26
3.1 Research Approach	26
3.2 Research Design	27
3.2.1 Sampling	27
3.3 Data Collection Method	29
3.3.1 Semi-structured Interviews	29
3.3.2 In-person and Digital Interviews	30
3.4 Data Analysis Method	31
3.5 Quality of the Data	32
3.5.1 Trustworthiness	32

3.5.2 Authenticity	33
3.6 Ethical Considerations	34
3.7 Method Discussion	35
4 Results	38
4.1 How do Organisations Develop Employees' Competence for Handling VUCA	38
4.1.1 Flexibility	38
<i>Cross Functionality</i>	38
<i>Job Rotation</i>	39
<i>Other Aspects</i>	40
4.1.2 Agility and Adaptability	41
<i>Communicating Future Needs</i>	41
<i>Learning Culture and Learning from Experience</i>	42
<i>Job Rotation and Trying New Tasks</i>	43
<i>Educating Through Workshops and Seminars</i>	44
4.1.3 Multiple Perspectives	45
<i>Learn from Others, Reflecting, Insights and Discussions</i>	45
<i>Diversity and Inclusion</i>	47
4.1.4 Growth Mindset	47
<i>Learning from Failure and Educating About Growth Mindset</i>	47
<i>Creating a Learning Organisation</i>	48
<i>Other Aspects</i>	49
4.1.5 Self-awareness	50
<i>Reflection</i>	50
<i>Employees in Charge of Their Own Development</i>	50
<i>Self-awareness Assessment & Tools</i>	51
4.1.6 Resilience	52
<i>Culture and Psychological Safety</i>	52
<i>Reflection and Feedback</i>	54
<i>Other Aspects</i>	55
4.2 Challenges	56
4.2.1 Lack of Time and Priority	56
4.2.2 Demands on Employees	57
4.2.3 Different Learning Activities and Learning Preferences	58
4.3 Future Work with Competence Development in an Increasingly VUCA World	59
4.3.1 Sharing Knowledge in the Organisation	59
4.3.2 Fast, Accessible, and Easy Learning Material	60
4.3.3 Self-driven Competence Development	61
4.3.4 Facilitating Learning and Strategic Work with Competence Development	62
5 Analysis & Discussion	64
5.1 How Do Organisations Develop Employees' Competence for Handling VUCA	64
5.1.1 Flexibility	64
5.1.2 Agility and Adaptability	66
5.1.3 Multiple Perspectives	68
5.1.4 Growth Mindset	70
5.1.5 Self-awareness	72
5.1.6 Resilience	74
5.2 Challenges	75
5.3 Future Work with Competence Development in an Increasingly VUCA World	78
6 Conclusion	82

6.1 How do Organisations Develop Employees' Competence for Handling VUCA	82
6.2 What are the Challenges in Developing Employees to be able to Handle VUCA	84
6.3 Future Work with Competence Development in an Increasingly VUCA World	85
6.4 Practical Implications	86
6.5 Limitations	87
6.6 Future Research	88
References	89

List of Tables

Table 1. Previous research that the interview questions are based on.	15
Table 2. Summary of the participants in the study.	28

List of Figures

Figure 1. Categories and themes utilised in the data analysis.

32

1 Introduction

1.1 Background

Organisations today face new challenges as the world has become increasingly complex, unpredictable, unstable, and rapidly changing (Ullrich, Bertheau, Wiedmann, Sultanow, Korppen & Bente, 2021; Garvey Berger & Johnston, 2015; Bolman & Deal, 2019). Thus, the acronym VUCA, which stands for volatility, uncertainty, complexity and ambiguity, has become a common term in business contexts (Bennett & Lemoine, 2014a; Forsythe, Kuhla & Rice, 2018). Uncertain situations, characterised by lack of knowledge; ambiguous situations, defined by the lack of patterns of cause and effect; and volatile situations that are unpredictable, have become a part of organisational life (Bennett & Lemoine, 2014a; Bennett & Lemoine, 2014b). As it is long known that employees are one of an organisation's most valuable assets (Ambler & Barrow, 1996), employees need to be developed to be able to meet the demands of the VUCA world (Forsythe, Kuhla & Rice, 2018). The CEO of Synchrony Financial, Margaret Keane, stated:

“You cannot ignore the development of the employees, because they are the foundation of how things operate every day. In the environment we are in right now, where change is happening at such an explosive pace, we have to make sure we are thinking through the skill sets of our employees to make sure they are going to be successful in their careers and that we have the right talent.” (Forsythe, Kuhla & Rice, 2018, p.10).

However, the VUCA environment has also created new demands on the work with competence development in organisations and dramatically altered the organisational learning landscape, for example, with technological advancements (Horstmeyer, 2019). The accelerating pace of change in organisations, therefore, creates new demands on organisations and how they should work with competence development (Horney, Pasmore & O'Shea, 2010; Horstmeyer, 2019). Competence development can appear in many forms, such as through informal and formal learning activities (Draganidis & Mentzas, 2006; Wallo, Kock & Lundqvist, 2019), but the environment requires the

work to keep up with the VUCA world. For instance, the increasing complexity has caused standardised training programs to become outdated. Instead, there has been an increasing demand for training programs customised to the individual, the team and the context. Moreover, there is an increasing challenge in facilitating learning that can be transferred and applied to the employees' work (Horstmeyer, 2019).

Furthermore, VUCA has created new demands on what needs to be learnt since employees' knowledge and skill sets become outdated faster as the world is constantly changing (Horstmeyer, 2019). Hence, employees need to be developed to handle the challenging and fast-moving environment in which they operate (Mintzberg & Van der Heyden, 1999).

Competence exists in relation to the given context (Ellström, 1997). To thrive in the VUCA world, people do not only need to gain new knowledge, but also new mindsets, thinking patterns, and behaviours depending on the context (Garvey Berger & Johnston, 2015). For instance, flexibility is described to allow a person to adjust dynamically to uncertainty (Evans & Bahrami, 2020). Moreover, agility is described as a key factor in handling volatility (Bennett & Lemoine, 2014a), and resilience is essential for employees to continuously adapt and thrive at work in the light of changing circumstances (Kuntz, Näswall & Malinen, 2016). Even though these are only some examples of important factors when handling a VUCA world, they show the relevance of developing employees towards these factors. Therefore, organisations need to develop their work with competence development, and the professionals working with competence development need to apply methods of learning that allow these qualities to be developed.

1.2 Problem Formulation

Because of the characteristics of a VUCA environment, the employees need to be able to constantly learn from unfamiliar situations and be constructive problem solvers that learn to adjust to new conditions. With the constant changes in the VUCA world, the skills and competencies required today might not be useful tomorrow. Hence, employees' skills become outdated at a faster rate, which creates a need for organisations to constantly work on securing their competence development is effective (Horstmeyer, 2019). Therefore, organisations need to develop their work with competence development to be able to equip their employees for the world they are operating in.

Several researchers and authors have approached the subject of VUCA and the challenges of operating in a VUCA world (Bennett & Lemoine, 2014a; Forsythe, Kuhla & Rice, 2018; Weick & Sutcliffe, 2001; Popova & Shynkarenko, 2016). However, most research that addresses what is needed in a VUCA world and how these qualities can be acquired is focused on managers or leaders (Horney, Pasmore & O'Shea, 2010; Krawczyńska-Zaucha, 2019). Moreover, the research that does address the need to prepare employees for a VUCA world (Evans & Bahrami, 2020; Popova & Shynkarenko, 2016; Livingston, 2014; Kok & van den Heuvel, 2019; Raghuramapatruni & Kosuri, 2017), seldom address specifically how these qualities and skills can be developed through competence development of employees.

Hence, this raises the question; how do managers and organisations work with competence development to prepare employees for the VUCA world, and how could this work be done in the future?

1.3 Research Purpose

The purpose of this study is to help professionals responsible for competence development in their work to enable employees to handle a VUCA world. This will be done by exploring and describing how their work with competence development is currently being done and by creating a deeper understanding of how they can work in the future to enable employees to handle a VUCA world. This can help professionals outline their work with competence development and identify what aspects they need to consider.

To fulfil the purpose of creating a deeper understanding, the authors will present literature on VUCA and competence development with data from professionals in the field.

1.4 Research Questions

1. How do organisations develop employees' competence for handling VUCA?
2. What are the challenges in developing employees to be able to handle VUCA?

3. How can organisations work in the future with competence development to enable employees to handle a VUCA world?

1.5 Delimitations

A delimitation is that this study does not aim to investigate what factors are important in a VUCA world. Instead, the focus is to investigate how and what methods can be used to develop employees' competence for handling VUCA. Hence, the paper does not focus on what factors are of importance, but the paper will nevertheless address some of these in order to fulfil the purpose of investigating how organisations can work for their employees to be able to handle a VUCA world (see Section 2.4).

Moreover, the researchers are interested in the Swedish labour market. Therefore, they chose to make a delimitation only to include participants from organisations in Sweden.

1.6 Outline of the Thesis

In Chapter 1, the research subject is introduced, and the purpose and research questions are formulated. In Chapter 2, the researchers present a literature review on VUCA, competence, competence development, adult learning, adult development, individual competence factors that are of importance when handling a VUCA world and methods to develop the individual competence factors.

The methodology of the thesis is presented in Chapter 3. The chapter begins with the study's research approach, process, and design. The chapter then describes data collection, the procedure of the study and the sampling of participants. Lastly, the data analysis, the quality of the data, ethical considerations and a critical discussion of the research methodology are presented.

Subsequently, the data is presented and summarised in Chapter 4, followed by an analysis and discussion of the empirical findings in relation to the literature in Chapter 5. Lastly, in Chapter 6, the findings from the research are summarised and presented to fulfil the thesis' research purpose and answer the research questions. The chapter also includes practical implications, limitations and suggestions for further research.

2 Literature Review

This chapter provides an overview of the literature used in the study. The literature review serves as an analytical framework when analysing and discussing the data (see Chapter 5) and has served as a foundation when creating questions for the interview guide (see Section 2.4 and Section 3.2).

Firstly, the general search and selection of sources will be presented to address how the search for the literature has been done. The literature review is then divided into different parts. First, literature on VUCA, competence, competence development, adult learning and development will be presented. Second, the researchers present literature on individual competence factors when handling a VUCA world. The subchapter includes a presentation of the search and selection of the factors from previous research, together with a critical discussion. Lastly, the subchapter ends with literature on methods to develop the individual competence factors.

2.1 General Search and Selection of Sources

When evaluating the credibility of the sources for the thesis, four aspects were considered. These aspects are authenticity, temporality, independence and freedom from tendency (Thurén & Werner, 2019). Authenticity concerns whether the source is what it claims to be or whether it could be falsified. When choosing the sources, the researchers reviewed the author and the publisher to ensure authenticity. The study has further addressed the aspect of freedom of tendency, which concerns whether the author's interest in the matter might have affected its reliability (Thurén & Werner, 2019). The researchers could ensure reliability as both have been able to assess and question the sources they read and used in the thesis process.

Moreover, to ensure temporality, the sources' publication dates were considered to see if the sources were current for use. The study has used different materials and sources, including conceptual discussions, theoretical reviews and empirical studies. For example, the researchers used mostly conceptual discussions on the subject of competence and competence development and empirical

studies on factors in handling a VUCA world. The sources included were both recent and older in time. For example, theories on competence and adult learning are older as they are primary sources, for example, the use of Ellström (1992) and Knowles (1970). However, the thesis also uses recent sources from empirical studies, such as Mikołajczyk (2022).

The aspect of independence refers to the autonomy of the source. Primary sources have been used in the study when possible, and the researchers tried to refrain from using secondary sources. However, secondary sources have been used as a complement in those parts where primary sources were insufficient or could not be obtained. An example is the use of Joiner and Joseph (2007) in Stålné (2017). On the one hand, a risk when using secondary sources is that it can be problematic for the reader to understand the initial message of the source when a previously interpreted source is once again reinterpreted, which can lead to misinterpretation and misunderstanding for the reader. On the other hand, the use of secondary sources has functioned as a complement to primary sources, for example, when the primary source was unavailable.

The databases LUBcat, LUBsearch, Scopus and Google Scholar were used when searching for the literature review. The researchers used different coding categories to find relevant sources when searching. Keywords were used in both English and Swedish. The keywords consisted of, for example, VUCA, Competence, Competence Development, Employee Development, People Development, Adult Learning, Learning, Adult Development, VUCA AND Human Resource Management, Competence Development AND Complexity, and VUCA AND Employee Development.

To ensure scientific validity, the researchers filtered the search results only to include peer-reviewed sources. When deciding which sources to use in the study, the researchers used filtering to find the sources of the highest citation. For example, the filtering to sort by the highest citation was used in the database Scopus. This shows the researchers' reasoning behind why certain sources were used in the thesis compared to others. For example, Bennett and Lemoine (2014a) were used as that article had been cited over 300 times. Another example is that twenty-eight hits came up when the researchers used the keywords VUCA AND Employee Development. The researchers then looked at the articles with the highest citation, thus resulting in, for example, the finding of Seville (2018). Likewise, when the keyword VUCA was used, six hundred forty hits came up, but after sorting by highest citation, the article by Millar, Groth, and Mahon (2018) was used.

2.2 VUCA

2.2.1 Definition of VUCA

The term VUCA is often used to describe the world and its increasingly unpredictable, unstable and rapidly changing environment (Bennett & Lemoine, 2014a; Livingston, 2014). The acronym stands for volatility, uncertainty, complexity, and ambiguity and was first initiated by the U.S. Army in the 1990s to describe the post-Cold War environment (Forsythe, Kuhla, & Rice, 2018). Later, the term has also come to be frequently used in the business environment to describe the challenging, unpredictable, and fast-paced environment businesses operate in (Livingston, 2014; Forsythe, Kuhla, & Rice, 2018).

2.2.2 Dealing with VUCA

To achieve success, organisations need to understand the environment's volatility, uncertainty, complexity and ambiguity (Garvey Berger & Johnson, 2015; Burk, 2019). In an ever more complicated world, maintaining high performance in an organisation demands awareness and effective management of unexpected challenges and threats (Weick & Sutcliffe, 2001). Bennett and Lemoine (2014a) argue that to deal with the complexity of the environment, the organisation needs to adjust to be able to mirror the environment. Hence, external changes in the environment need to be identified and analysed so that internal changes in organisations can be made (Bennett & Lemoine, 2014a).

When dealing with a VUCA world, situations and outcomes are unpredictable. Therefore, Kurtz and Snowden (2003) argue that you cannot rely on more than just the opinion of experts when dealing with complexity. They argue that only relying on expertise could be a trap in a complex world since it does not make people prepared to identify unexpected patterns and act in unexpected situations. Instead, there are other traits and skills than only expertise desirable in employees. For instance, Garvey Berger and Johnston (2015) emphasise that people's mindsets and the way they think and behave are key factors in dealing with a VUCA world. Moreover, the authors state that the assumptions that are solid in a predictable world must be reconsidered when entering a complex world (Garvey Berger & Johnston, 2015). In a predictable world, it is enough to think about what is probable

based on previous events. Instead, in a complex world, one must consider all possibilities. Garvey Berger and Johnston (2015) argue that changing the mindset from focusing on probabilities to focusing on possibilities can be more difficult than expected since human brains tend to simplify. However, the authors describe that by creating new habits and thinking patterns, we can develop the ability to handle complexity better.

Furthermore, Bennett and Lemoine (2014a) point out that VUCA often is used synonymously to ‘unpredictable change’, pointing out how the term usually is spoken about to describe the fast-moving and changing environment. The four terms in the acronym, therefore, can be confused to be direct synonyms. However, each of the four components that the acronym VUCA consists of has a specific meaning that needs to be understood individually and addressed as a separate phenomenon (Bennett & Lemoine, 2014a). The four components will be described further to thoroughly understand the many dimensions and the meaning of a VUCA world.

Volatility

Volatility is characterised by instability and unpredictability (Bennett & Lemoine, 2014a) and an accelerating pace of change (Forsythe, Kuhla & Rice, 2018). Change is likely in a volatile situation, but the nature, endurance, scope, magnitude and speed of the change are unpredictable and unstable (Livingston, 2014). For a situation to be volatile, it does not necessarily need to include complex or ambiguous elements, such as a lack of knowledge of the causes and effects (Bennett & Lemoine, 2014a). Bennett and Lemoine (2014a) argue that agility is the primary solution to handling volatility. They argue that the key to preventing being a victim of a volatile situation is to stock up on both material, talent and skills that may be needed to be prepared to act when necessary (Bennett and Lemoine (2014b).

Uncertainty

Uncertainty refers to situations where the lack of knowledge and information causes it to be unpredictable (Bennett & Lemoine, 2014b; Forsythe, Kuhla, & Rice, 2018). Cause and effect in the situation are known, but due to the lack of additional information, the uncertainty remains. Therefore, collecting, interpreting and sharing information is a response to uncertainty (Bennett & Lemoine, 2014a).

Complexity

Complexity is an interweaving of the Latin words com and plex which together mean intertwined, something with many parts and interconnections (Stålne, 2017). Similarly, Bennett and Lemoine

(2014a; 2014b) and Kurtz and Snowden (2003) describe a complex situation as one with several interconnected elements and where many different circumstances affect each other. Hence, grasping and processing the information available in a complex situation can be overwhelming (Bennett & Lemoine, 2014b).

Complex environments do not have certain outcomes since no stable patterns can make the situation predictable (Kurtz & Snowden, 2003). Therefore, predicting the relationship between cause and effect is difficult in a complex environment before the situation has happened and the results have been played out. However, even though a pattern between cause and effect can appear logical retrospectively, there is no assurance that patterns will repeat in a complex world (Kurtz & Snowden, 2003).

Stålne (2017) describes that complex problems lack a single and correct solution, and one solution can cause new, subsequent problems. Moreover, complex problems are described as uncertain and open to interpretation and can require multiple perspectives and interests to be considered and measured against one another (Stålne, 2017). Another word for complex problems is wicked problems (Stålne, 2017; Camillus, 2008). In the increasingly complex and VUCA world, many strategists face wicked problems to a larger extent (Camillus, 2008). Rittel and Webber (1973) concluded on ten characteristics of wicked problems, for instance, how there is no clarity as to where a wicked problem begins and ends. The authors further describe that because of their complexity, wicked problems are never clearly solved. They argue that “solutions to wicked problems are not true-or-false, only good-or-bad” (Rittel & Webber, 1973, p. 162).

Ambiguity

In an ambiguous situation, the relationship between cause and effect is unclear, and the relatedness does not become clearer by collecting additional information (Bennett & Lemoine, 2014b). Ambiguous situations are, therefore, difficult to grasp and understand and often cause misinterpretations (Forsythe, Kuhla, & Rice, 2018). Bennett and Lemoine (2014a) argue that since collecting information does not decrease the ambiguity of a situation, ambiguous situations should be approached through learning from trial-and-error and experimenting.

2.3 Competence Development

2.3.1 Definition of Competence

Competence can be understood in different ways. Ellström (1992, p. 21) defines competence as “the potential for performance in a given task, situation or context”. Ellström (1997) further explains how the term “refers to the capacity of an individual (or a collective) to successfully (according to certain formal or informal criteria, set by oneself or by somebody else) handle certain situations or complete a certain task or job” (Ellström, 1997, p. 267). Ellström (1997) elaborates on the description of competence. The author mentions a variety of factors, including different types of skills and how an individual can have a variety of competencies. These can be; different types of intellectual skills and knowledge, motor skills, shaping factors, like attitudes, values, and motivations, social skills, affective factors and personality traits. Moreover, Illeris (2012, p. 36) describes competence as the ability “[...] to be able to handle the contexts one is involved in [...]”.

The definitions provided by Ellström (1997) and Illeris (2012) emphasise that competence is determined based on the specific situation or given context. In this thesis, the given context is a volatile, uncertain, complex and ambiguous world.

2.3.2 Definition of Competence Development

Competency management is explained as the method an organisation uses to ensure that its employees have the necessary abilities (Wright & McMahan, 1992). The process includes different parts, from mapping out the competencies needed to developing, monitoring and measuring them. Competence development is one part of the process of competency management, in which the aim is to solve a skill gap by developing the competencies of employees (Draganidis & Mentzas, 2006). Ellström (1992) explains further how the purpose of competence development activities in organisations is to add value to the organisation by developing the employees working in it.

Competence development is defined by Ellström and Kock (2008, p. 7) as “an overall designation for the various measures that can be used to affect the supply of competence on the internal labour market (in individual employees, groups of employees or the whole personnel group)”. The authors also emphasise that competence development concerns the learning processes that contribute to the

development of different competencies (Ellström & Kock, 2008). Furthermore, it is explained by Kock (2010) as a way organisations can adapt to external requirements. Competence development is an essential way for organisations to prepare their employees for the challenges of tomorrow (Illeris, 2012).

2.3.3 Methods for Competence Development

Competence development can consist of one or several strategic actions and initiatives that can impact competence among employees or groups within organisations (Wallo, Kock & Lundqvist, 2019; Ellström, 1992). The different initiatives can include various learning activities, either informal or formal (Ellström, 1992; Ellström & Kock, 2008).

The formal activities can include staff mobility, promotion for employees, recruitment, education and training of employees (Ellström, 1992; Ellström & Kock, 2008). A formal learning activity has some planning and organisation behind it (Wallo, Kock & Lundqvist, 2019; Marsick & Watkins, 2001). Formal learning activities, which include training and education of employees, such as classroom-based or workshops, are the most common type of training in organisations (Park & Choi, 2016; Ellström & Kock, 2008; Draganidis & Mentzas, 2006). The activities often involve attending training sessions or other classes the employer pays for, which can be in or outside the workplace. They are often led by an instructor and are structured, planned, and goal-focused (Wallo, Kock & Lundqvist, 2019; Marsick & Watkins, 2001). Sloan (2020) also describes that formal learning in organisations is often classroom-based, with an instructor or teacher that is educating.

Informal learning can include daily activities in the workplace, workplace meetings, on-the-job learning and planned changes to tasks or the organisation itself (Park & Choi, 2016; Kock, 2010; Sloan, 2020). Marsick and Watkins (1990, cited in Sloan, 2020, p.57) define informal learning as “predominantly experiential and non-institutional, nonroutine, and often tacit”. Informal learning activities are usually intentional but not highly structured (Sloan, 2020). For example, activities can be self-directed learning, mentoring and types of networking (Marsick & Watkins, 2001). However, there are other forms of informal learning, such as coaching, learning from mistakes, and trial and error (Sloan, 2020). Informal learning is considered to supplement the learning activities provided by formal learning effectively. According to research, organisations need to combine formal and informal learning activities, and several authors argue for combining the two types (Park & Choi,

2016; Kock, 2010). Competence development of employees can therefore refer to one or more of these different activities and events (Ellström, 1992; Ellström & Kock, 2008).

2.3.4 Definition and Research on Adult Learning

As stated, competence development includes learning (Ellström & Kock, 2008). Kolb argues in his theory that learning is an ongoing process based on experience and that people have different learning styles and preferences for learning (Kolb, 1984; Bélanger, 2011). Moreover, Kolb defines learning as: "[...] a process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Kolb further argues that knowledge develops through change, and he describes learning as a cycle that includes acting, experiencing, reflecting, and thinking.

However, there were theories on learning before VUCA as a concept was widely spread. For instance, Knowles (1970; Knowles, Swanson & Holton, 2005) researched how adults learn and developed a well-known theory on adult learning. Nevertheless, since to develop in a VUCA world is about competence development which includes learning, it is essential to understand how adults learn to understand how to design competence development initiatives. Knowles' (1970) theory on adult learning is based on the knowledge that adults learn differently than children and consists of six underlying assumptions of how adults learn.

1. The first assumption describes how adults need to understand why they need to learn something before they start learning.
2. The second assumption concerns that adults consider themselves in charge of their own lives and choices. Therefore, once adults have reached the state that Knowles describes as a self-concept, they develop a psychological need to be seen and treated by others as capable and in charge of their own development.
3. The third assumption is that adults connect new information and references to their previous experiences to expand on prior knowledge.
4. The fourth assumption concerns adults' readiness to learn. Knowles states that when there is a purpose or a goal for learning, such as advancing in stages in their professional development, adults are more willing to learn.
5. The fifth assumption states that rather than simply learning about a topic, adults prefer to gain useful skills that will enhance their capacity to perform and solve problems, as well as the knowledge that will apply to their everyday lives.

6. The sixth and last assumption is about adults' motivation to learn. Knowles describes that adults are open to some external motivators, such as promotions and higher salaries. However, the strongest motivational factors are the adult's internal pressures, such as higher job satisfaction or increased self-esteem (Knowles, Swanson & Holton, 2005; Knowles, 1970).

Based on the assumptions on how adults learn, Knowles presents four central principles explaining how to develop training for adults best. Firstly, the author explains that adults must plan and evaluate their learning. Secondly, adults' experiences should be the foundation for their learning activities. Third, the learning activities should be relevant to and impactful in their everyday life, either in their jobs or personal lives. Lastly, adult learning should be problem-focused rather than content-focused (Knowles, Swanson & Holton, 2005). However, Knowles' theory on adult learning has been criticised for assuming that all adults learn similarly and ignoring the impact of culture and systems of oppression (Sandlin, 2005).

2.3.5 Adult Development

According to Stålné (2017), adult development is one way to increase the ability to deal with complexity. There are two main schools of thought on adult development; one part of adult development concerns the ability to complex thinking, reasoning and problem-solving. This part of adult development concerns the individual's intellectual development and ability to understand complexity. It is about developing the ability to see many perspectives, find connections, and understand interdependencies and root causes (Stålné, 2017). This cognitive ability can be developed and is described in different stages (Stålné, 2017). Secondly, another part of adult development is the ability to understand oneself and one's many dimensions in relation to the world. Developing in this sense includes developing emotional aspects, understanding one's self-concept, and understanding oneself's complexity and nuances (Stålné, 2017).

Stålné (2017) describes vertical and horizontal development. Horizontal development concerns developing concrete competencies and adding information to our preexisting thinking patterns. Horizontal development is the most common, which refers to developing skills and thoughts further within a limiting perspective. Horizontal development can involve acquiring new knowledge but also involve learning about oneself. Horizontal development emphasises learning to use the strategies you have already acquired (Stålné, 2017). In contrast, vertical development involves reaching new stages of development, such as advancing to higher levels of awareness and developing new thinking

patterns (Stålne, 2017; Raghuramapatruni & Kosuri, 2017). Vertical development is about changing one's view of oneself or a problem and widening one's frame of reference (Stålne, 2017).

The process of achieving horizontal and vertical development differs from one another. Raghuramapatruni and Kosuri (2017, p. 21) explain that in comparison to horizontal development, which can be achieved by receiving information from another external party, such as an expert within the field, “vertical development must be earned (for oneself)”. Raghuramapatruni and Kosuri (2017) state that competence development initiatives are usually directed towards achieving horizontal development for the employee. However, they argue that to handle a VUCA world, there needs to be a greater focus towards achieving both horizontal and vertical development for the employees (Raghuramapatruni & Kosuri, 2017).

2.4 Individual Competence Factors of Importance When Handling a VUCA World

The aim of this study is not to look into what different factors are of importance in a VUCA world but instead to investigate how organisations can work with competence development to enable employees to handle a VUCA world. However, the researchers chose to identify some individual competence factors to base the interview questions on. The researchers saw a potential risk that, otherwise, would not the participants in the study be able to answer the researchers' questions. The subjects studied are complex and extensive, which creates a risk that the participants would have been unsure of what to answer (see Section 3.1). Therefore, the researchers chose to research and select individual competence factors to work as a framework for the interview guide and the study. The findings from the search worked as a foundation for the interview questions. They allowed the researchers to ask targeted questions about how employees can be developed to handle a VUCA world. Hence, the identified factors allowed the researchers to investigate better the methods organisations use to develop employees to handle VUCA and fulfil the purpose of the study. The chosen individual competence factors of importance in a VUCA world are flexibility, adaptability, agility, the ability to see multiple perspectives, having a growth mindset, resilience and self-awareness.

2.4.1 Identifying the Individual Competence Factors

To identify the individual competence factors, the researchers searched the databases LUBcat, LUBsearch, Scopus and Google Scholar and used different coding categories. The coding categories were: VUCA AND People Development, VUCA AND Competence Development, VUCA AND Employee Development, Competence AND VUCA, Factors AND VUCA, Factors AND VUCA World, Employee AND VUCA, and VUCA AND Development. The search followed the same principles as described in Section 2.1.

The search in the databases led to the researchers finding sources relevant to the study's research purpose. After reviewing previous research, the researchers could see recurring themes of some important factors in a VUCA world in their search. The researchers chose the individual competence factors for the thesis based on what recurring themes were brought up by previous research. The researchers noted down the factors that came up in their search for previous research. These were the chosen factors. The chosen individual competence factors and interview questions are based on previous research, which is presented in Table 1.

Table 1: Previous research that the interview questions are based on.

Interview Question	Individual Competence Factor	Literature Review on Individual Competence Factors
3.	Flexibility	(Evans & Bahrami, 2020; Popova & Shynkarenko, 2016; Krawczyńska-Zaucha, 2019)
4.	Agility	(Horney, Pasmore & O'Shea, 2010; Forsythe, Kuhla & Rice, 2018; Bennett & Lemoine, 2014a; Millar, Groth & Mahon, 2018; Livingston, 2014; Popova & Shynkarenko, 2016; Saleh & Watson, 2017)
5.	Multiple Perspectives	(Garvey Berger & Johnston, 2015; Kurtz & Snowden, 2003)
6.	Resilience	(Forsythe, Kuhla, & Rice, 2018; Katzenbach & Khan, 2010; Sharma & Sharma, 2016; Millar, Groth, & Mahon, 2018; Kuntz, Näswall & Malinen, 2016; Livingston, 2014; Seville, 2018)
7.	Growth Mindset	(Garvey Berger & Johnston, 2015; Dweck, 2006; Dweck, 2016; Kok & van den Heuvel, 2019)

8.	Adaptability	(Horney, Pasmore & O'Shea, 2010; Forsythe, Kuhla & Rice, 2018; Livingston, 2014; Popova & Shynkarenko, 2016)
9.	Self-awareness	(Raghuramapatruni & Kosuri, 2017; Coopersmith, 2022; Shavkun & Dybchinska, 2020; Stålné 2022; Coopersmith, 2022).

The researchers would like to make a critical observation that more factors were brought up in previous research that are not included in the study. Therefore, the factors chosen by the researchers are not a complete list but a selection of factors of importance in a VUCA world. Examples of factors that were brought up in the literature but that are not included in the thesis are; having a clear vision (Saleh & Watson, 2017), openness (Horstmeyer, 2019), strategic thinking (Sloan, 2020) and critical thinking (Raghuramapatruni & Kosuri, 2017).

The choice to only include seven individual competence factors to base the study and interview questions on was made due to time limitations. More individual competence factors could possibly have been included if there had been a larger timeframe and the scope of the thesis had been larger. Likewise, the choice not to investigate the frequency of every individual competence factor in the literature was made due to time limitations, as the researchers assessed that it would have been too time-consuming to look into all of the sources the search words resulted in. The researchers are aware that their search for what factors to include in the thesis can have affected the findings and that other researchers might have found other factors of importance. Therefore, the researchers are critical towards themselves as the selection of the individual competence factors is based on their search of previous research.

2.4.2 Flexibility

Evans and Bahrami (2020) describe that being flexible is beneficial to handle a VUCA world, as flexibility allows a person to adjust dynamically to uncertainty. Popova & Shynkarenko (2016) explain that employees in a VUCA world must exhibit adaptive skills, such as cognitive and behavioural flexibility, that enable them to be flexible in response to changes and to respond to changing situations more quickly. Moreover, Krawczyńska-Zaucha (2019) highlight that one primary challenge in a complex world is to be able to see the bigger picture. The authors argue that flexibility enables people to quickly recognise and adapt to the demands of a situation by being able to address

both the bigger picture and the individual components of a problem and that flexibility, therefore, is beneficial to handle complexity (Krawczyńska-Zaucha, 2019).

2.4.3 Agility and Adaptability

Agility can be defined as “adaptability to different situations, issues, higher complexity and higher pace of change” (Joiner & Joseph, 2007 in Stålné, 2017, p. 216). Evans and Bahrami (2020) state how agility concerns acceleration and movement. Adaptability differs from agility in that adaptability is about adjusting to the current circumstances (Popova & Shynkarenko, 2016), while as described above, agility concerns the ability to quickly move and accelerate (Evans & Bahrami, 2020). Being agile and adaptable are key requirements for managing VUCA situations (Horney, Pasmore & O’Shea, 2010; Saleh & Watson, 2017; Forsythe, Kuhla & Rice, 2018). Agility and adaptability are further described as necessary to handle change, both for organisations and employees (Livingston, 2014). A quote by Weick and Sutcliffe (2001, p. 264) can further strengthen this; “High-reliability organisations cope with unexpected events by adapting to circumstances rather than by depending on plans”. Popova and Shynkarenko (2016) further state that employees must continue to be adaptable for the employee and the organisation to be able to transition to operate in a highly disruptive world, like a VUCA world. Moreover, it is suggested in the literature that managers should work towards increasing agility to navigate VUCA environments (Millar, Groth & Mahon, 2018) and that organisations and employees need to have an agile attitude to handle a VUCA world (Ullrich et al., 2021). Furthermore, previous research describes that being agile is the key to handling volatility (Bennett & Lemoine, 2014a). Finally, Kinsinger and Walch (2012, in Livingston, 2014) describe how ambiguity can be targeted with agility, and the authors describe the way and ability to apply solutions while coordinating communication across the organisation.

2.4.4 Multiple Perspectives

According to Garvey Berger and Johnston (2015), a key ability to better handle a VUCA world is taking, seeing and integrating multiple perspectives. Kurtz and Snowden (2003) have similar reasoning. The authors highlight that a lack of predictable patterns characterises complex environments, and to stay ahead in an environment where patterns and outcomes are not predictable;

it is essential to be able to notice new patterns emerging and act upon them. Therefore, the authors argue that the ability to see multiple perspectives is required to be able to handle complexity.

2.4.5 Growth Mindset

Garvey Berger and Johnston (2015) argue that a growth mindset is vital to cope with a VUCA world. The term growth mindset, and the opposing term fixed mindset, were introduced by Carol Dweck in her book *Mindset: The New Psychology of Success* (2006). Dweck's research found that the underlying mindset was a key component of how people coped with failure. A growth mindset can be explained as a belief that skills and competencies can be developed and learnt through work, dedication and making an effort. People with a growth mindset thrive on challenges and view failures and setbacks as learning opportunities. Furthermore, a growth mindset makes people more resilient when facing setbacks (Dweck, 2006). Consequently, people with a growth mindset frequently achieve more by exerting more effort to learn and grow. The author explains that when whole organisations embrace a growth mindset, their employees feel more motivated and committed to their development (Dweck, 2016).

When whole organisations embrace a growth mindset, their employees also report that they perceive more collaboration and innovation in the organisation. In turn, this will positively affect the entire organisation in creating a culture that helps the company thrive and succeed in a VUCA world (Dweck, 2016; Kok & van den Heuvel, 2019). Similarly, Garvey Berger and Johnson (2015) emphasise that learning from failures is vital to thrive in the unpredictable, fast-changing and complex times of a VUCA world. “Without a growth mindset, we are much better suited to a more predictable, simpler world.” (Garvey Berger & Johnston, 2015, p. 177).

In contrast, a fixed mindset is a belief that qualities, personality, skills and intelligence are stable factors carved in stone. Hence, failure is viewed as a setback that confirms incompetence, and effort is viewed negatively and as something needed when talent or smartness is lacking (Dweck, 2006). Therefore, a fixed mindset creates a need to prove your competence since failures and a lack of performance define your competencies. Hence, having a fixed mindset inhibits growth (Dweck, 2006).

2.4.6 Self-awareness

Having self-awareness is a powerful capability to be able to stay ahead in a VUCA world (Raghuramapatruni & Kosuri, 2017; Coopersmith, 2022; Shavkun & Dybchinska, 2020). There are multiple definitions of self-awareness, and the term is sometimes confused with self-consciousness or self-knowledge. Carden, Jones and Passmore (2021, p.164) describe self-awareness as follows:

“Self-awareness consists of a range of components, which can be developed through focus, evaluation and feedback, and provides an individual with an awareness of their internal state (emotions, cognitions, physiological responses), that drives their behaviours (beliefs, values and motivations) and an awareness of how this impacts and influences others.” (Carden, Jones & Passmore, 2021, p.164).

Self-awareness is a necessary tool to be able to develop, as the VUCA world causes circumstances to change and creates new demands on the people living in it. Stålne (2022) described that the first step to development is to be aware that we are not fully learned and that there is a possibility to develop and learn. The current VUCA world creates a need to take advantage of every individual's potential in an organisation to meet the world's demands and, thus, a need to enable self-development in employees (Coopersmith, 2022). Coopersmith (2022) argues that self-awareness is one of the necessary components when aiming to reach self-development. The author further states that self-awareness is required to develop at the same pace as the world does, which matches the demands of the VUCA world. Self-awareness can also contribute to increased performance and strengthened relationships (Ciobotaru, 2017) and agility (Coopersmith, 2022). Moreover, developing self-awareness can lead to increased abilities in assessing personal strengths and weaknesses (Mustaffa, Nasir, Aziz & Mahmood, 2013) and understanding personal behavioural preferences: such as preferences in problem-solving and in handling ambiguous situations. Thus, awareness of one's strengths, weaknesses, potential, and preferences can help individuals understand what qualities to focus on to thrive in a VUCA world (Raghuramapatruni & Kosuri, 2017).

2.4.7 Resilience

Several studies have highlighted the importance of creating a resilient workforce to succeed in a VUCA environment (Forsythe, Kuhla, & Rice, 2018; Katzenbach & Khan, 2010; Sharma & Sharma, 2016). Therefore, teams and organisations need to work towards building and maintaining resilience to effectively address VUCA situations (Millar, Groth, & Mahon, 2018). There are several definitions of resilience. Weick and Sutcliffe's (2001, p.107) description reads: “Resilience is about bouncing

back from errors and coping with surprises at the moment". To increase employee resilience, the authors also make a case for creating an environment where people are mindful of mistakes. That way, mistakes can be corrected before they worsen and cause more extensive harm. Moreover, Evans and Bahrami (2020, p. 208) define resilience as "the ability to rebound from setbacks". Kuntz, Näswall, and Malinen (2016) describe how employee resilience can be explained as an employee's ability to use resources to continuously adapt and thrive at work, especially when facing difficult conditions, with facilitation and support from the organisation.

Livingston (2014) describes that learning to be resilient in changing circumstances can help when coping with a VUCA world. Similarly, Seville (2018) describes how in today's world that is affected by change and uncertainty, organisations will require basic resilience skills to survive. The author states that when individuals come together and work together, they can create a group that is more or less resilient than an individual on its own.

2.5 Methods to Develop the Individual Competence Factors

2.5.1 Flexibility

Cross-training enables people to be flexible in their work and is beneficial when operating in a VUCA world (Horney, Pasmore & O'Shea, 2010). Cross-training refers to where each employee is trained in the assignments, work, and responsibilities of their team members in their organisations. By introducing employees to the roles and responsibilities of others, cross-training aims to improve the understanding of team members' work and the different roles in the team. Therefore, cross-training increases interpositional knowledge, meaning, knowledge of the different positions, and also the ability to understand others' experiences and share learnings with others (Volpe, Cannon-Bowers, Salas & Spector, 1996; Popova & Shynkarenko, 2016).

Sharing experiences and knowledge can be encouraged by facilitating conversations across different levels of the organisation, business divisions, and geographical areas. Kok and van den Heuvel (2019) explain that HR managers must encourage employee collaboration through cross-functional activities within the organisations to foster a collaborative work environment to address complex problems. By using networks and promoting collaboration and information sharing among employees, organisations can better navigate the challenges that arise in the VUCA world (Jain, 2019). Likewise,

Millar, Groth and Mahon (2018) emphasise that learning needs to happen across borders, and Stålné (2017) describes that shifting between different environments is beneficial.

In a study conducted by Mikołajczyk (2022), the researcher showed that managers working with employee development must aim to increase employees' flexibility. The author argues that to increase employees' flexibility; there needs to be rewarding hands-on activities and a combination of different types of training, such as flexible employee training and access to online resources. Regarding employee development, managers must establish the ideal conditions for learning in the organisation and provide resources for development (Mikołajczyk, 2022).

2.5.2 Agility and Adaptability

Research shows that organisations can develop employees' agility and adaptability by working with cross-training initiatives in their organisation (Popova & Shynkarenko, 2016; Hopp & Van Oyen, 2003). Previous research further shows how specific forms of training in agile organisations also refer to the use of both cross-training methods, where they get insight into other professional roles, and the use of job rotation initiatives, in which they get to try new assignments outside of their normal work (Hopp & Van Oyen, 2003; Sumukadas & Sawhney, 2004). Hopp and Van Oyen (2003) describe how the use of job rotation is beneficial as employees get to try different types of work assignments focused on rotating work duties where they get to face new aspects in their work (Hopp & Van Oyen, 2003; Sumukadas & Sawhney, 2004). Moreover, Horney, Pasmore, and O'Shea (2010) and Popova and Shynkarenko (2016) both explain the importance of employees being able to switch work duties, such as the use of job-rotation, to create a more agile and adaptable workplace.

Organisations that support their employees' continuous learning and development will be better able to deal with change and adapt more quickly (Garvin, Edmondson & Gino, 2019). Ramamoorthy and Vedpuriswar (2022) argue that the competence development of employees has to shift beyond the organised, time-based activities aimed at developing knowledge, skills and attitudes. The author argues that in a VUCA world, HR managers need to start focusing on creating a learning culture within the organisation. To thrive as an organisation in a complex environment and adjust to the demands of the market, organisations need to create learning environments where individuals grow (Forsythe, Kuhla, & Rice, 2018).

The concept of a learning organisation is becoming increasingly popular. Learning organisations are better equipped to adapt to unpredictable situations (Garvin, Edmondson & Gino, 2019). A learning organisation has a strong learning culture and is foundational for dealing with the world's uncertainty and complexity. To strengthen the learning culture, it may be possible to enable such a culture through knowledge sharing and skill and knowledge exchanges among employees (Ramamoorthy & Vedpuriswar, 2022). Now more than ever, it is crucial that companies become learning organisations. The continual creation, acquisition, and transfer of knowledge by employees in a learning organisation aid in the organisation's ability to respond to unpredictability events (Garvin, Edmondson & Gino, 2019).

Forsythe, Kuhla, and Rice (2018) explain how team members trained in agile thinking are learning to work cross-functionally to accelerate change across the company. Moreover, creating a learning organisation has been pointed out as one of the five key factors to survive in a VUCA environment (Forsythe, Kuhla, & Rice, 2018, p.8). The researchers highlight “experimenting” and “learning from experience” as the two main strategies to create learning within the organisation. Experimentation was shown to have a clear connection to adaptability. One technique that can be used to increase learning in an organisation is after-action reviews (AARs), a concept first invented in the Army. After-action reviews refer to having retrospective talks and collectively reflecting on events as a group and discussing what went well, what could have gone better, and what could be considered for next time (Forsythe, Kuhla, & Rice, 2018).

2.5.3 Multiple Perspectives

To survive and thrive in a VUCA world, organisations need to adapt as the context and the circumstances change. Raghuramapatruni and Kosuri (2017) describe that one way to become adaptable is by creating a culture of openness that values the sharing of perspectives and inputs, experimentation, and curiosity. The authors discuss creating a “wirearchy”, instead of a hierarchy to make people share their insights, become involved, and be empowered. One way to approach multiple perspectives is to develop a will to take in others' perspectives, which can work as a bridge-builder and create connections between people (Garvey Berger & Johnston, 2015). Without seeing others' perspectives, it can be hard to understand them and their situation. Garvey Berger and Johnston (2015) explain how people need to be open to others' perspectives in this complex world which increases the possibility of developing the ability to see multiple perspectives.

Having multiple perspectives in mind can also help address complex problems that include paradox elements or polarities. Considering different perspectives, the paradoxes and the complexities of the problems can be better understood, and the problem can be dealt with inside its complex system instead of being treated as a simple problem that can be solved by an instant solution (Garvey Berger & Johnston, 2015).

2.5.4 Growth Mindset

Dweck (2006) emphasises that mindsets can be changed, and a growth mindset can be developed. However, it takes commitment and effort to create an organisational culture where a growth mindset is embraced and encouraged (Dweck, 2014). Throughout Dweck's work (Dweck, 2006; Dweck, 2014; Dweck, 2016), several ways are presented in which an organisation can work to enhance the development of a growth mindset. Dweck (2006) states that a first step when attempting to establish a work environment with a high degree of growth mindset on all levels in a company can be to establish a pertinent training program. The author proposes that the training programs include workshops to enhance mentoring skills, communication abilities, and a growth mindset. Furthermore, organisations should develop a feedback culture that supports learning and development. Managers should be seen as resources for learning through mentoring and coaching, the potential growth of employees should be emphasised (Dweck, 2006), and opportunities should be created for employees to develop and advance within the organisation (Dweck, 2016). Consequently, it is beneficial if the organisation's top management recognises the need to prioritise the learning and development of employees, and top management can be a part of driving the change in the organisation (Dweck, 2014).

Moreover, instead of only recognising ready-made talent, an organisation must constantly focus on the value of effort and learning. Hence, skills should be presented as learnable (Dweck, 2006). In order to stimulate learning and innovation, Dweck (2016) explains that organisations should encourage appropriate risk-taking to create an environment that enhances a growth mindset. For learning and development initiatives to be successful in an organisation, it is crucial to recognise the employees' potential (Dweck, 2006). In addition, a growth mindset should be encouraged and communicated through explicit policies (Dweck, 2016).

Furthermore, Dweck (2016) argues that collaboration within the organisation should be a focus point instead of competition and that collaboration across professional boundaries enhances a growth

mindset. Cross-functional training is one way to create cross-boundary learning and collaboration opportunities (Horney, Pasmore & O'Shea, 2010). As stated before, cross-training is a work method in which employees learn about team members' tasks and share experiences and knowledge (Volpe et al., 1996). Hence, cross-training could be seen as a tool to create a culture that enhances the development of a growth mindset.

An essential part of the concept of a growth mindset is that there needs to be room for mistakes (Dweck, 2006). Horstmeyer (2019) argues that a learning culture within the organisation reflects how the employee develops and grows and where creativity and engagement are acknowledged and rewarded, and mistakes are allowed. The author describes how employees are safe to take risks and make mistakes and explains that when a failure occurs, lessons are identified, codified, and applied, promoting stronger aptitudes and adaptability for managing VUCA conditions. A key factor is transforming the organisational culture to adapt and respond to the environment (Forsythe, Kuhla, & Rice, 2018). The organisational culture can, for instance, be adapted by the force of organisational values if they are explicit and reinforced throughout the organisation (Forsythe, Kuhla, & Rice, 2018; Katzenbach & Khan, 2010).

2.5.5 Self-awareness

In their research on how self-awareness is developed, Carden, Jones and Passmore (2023) find that multiple aspects contribute to developing self-awareness. The researchers found that the most effective development should be performed in a psychologically safe environment. According to the authors, a psychologically safe environment is one where people feel trust and are comfortable sharing their vulnerabilities with others so that interpersonal aspects of self-awareness, in particular, can grow. The environment should include opportunities for reflection and experiential learning (putting learning into practice). Especially the combination of experiential learning and reflection, first trying and then reflecting on the experience, was shown as a major influence in developing self-awareness. Furthermore, the learning environment could work as an enabler of self-awareness, especially the learning environment in the close group (Carden, Jones & Passmore, 2023).

Raghuramapatruni and Kosuri (2017) describe that one way to create self-awareness is to put employees in charge of their development. Stålné (2017) also describes how self-driven development and training are beneficial. People develop faster when they feel in charge of their own development and progress (Raghuramapatruni & Kosuri, 2017). Also, by focusing on vertical development, new

levels of self-awareness can be reached (Raghuramapatruni & Kosuri, 2017). However, it can be helpful for the individual aiming to reach new stages of development and develop in their awareness if the organisation is aware of the need to learn and develop (Stålne, 2022).

2.5.6 Resilience

Weick and Sutcliffe (2001) explain that one way to increase resilience is by creating informal networks within the organisation that self-organise and collaborate to solve problems, share expertise, and work across borders in an organisation. Moreover, Weick and Sutcliffe (2001) explain that resilience can be reached by developing the ability to handle disturbances and gain knowledge from experience. One way this can be reached is by working with fast feedback among employees and their managers (Weick & Sutcliffe, 2001). In a study by Sharma and Sharma (2020), the authors conclude that a resilient team can be more agile and adaptable. The authors explain that resilient teams are characterised by, and developed by creating social relationships and effective teamwork. The authors conclude in their study that a resilient team impacts an organisation in a good way regarding adaptability, productivity, and flexibility. Forsythe, Kuhla, and Rice (2018, p. 10) suggest an on-the-job training approach to develop resilience. In an on-the-job training approach, a more challenging version of the usual work lies as the foundation for the individual's growth and is complemented with support services to increase the learning and the benefits of the experience.

3 Methodology

This chapter presents the methodology of the study. First, the research approach, design and data collection method are described and argued for. Second, the chapter describes the data analysis, the data quality, ethical considerations and a critical discussion of the methodological choices of the thesis.

3.1 Research Approach

In this study, a qualitative research approach was chosen. The study aims to help professionals responsible for competence development in their work to enable employees to handle a VUCA world. This will be done by exploring and describing how their work with competence development is currently being done and by creating a deeper understanding of how they can work in the future to enable employees to handle a VUCA world. Therefore, the qualitative research method was chosen since it is suitable when studying individual perceptions and experiences. The method is applicable when the researchers want to get people's viewpoints and reflections (Bryman, 2018). Since this study aims to investigate how the work with competence development in a VUCA world is being done now and create a deeper understanding of how the work can be done in the future, the qualitative research method suits the purpose of the study.

When using a qualitative research method, a theoretical framework is often used to build a fundamental understanding and a frame of reference within the subject intended to be studied. Therefore, the theoretical framework is often used as a background to provide an understanding of the subject (Bryman, 2018). The research approach in this thesis was deductive since the researchers researched what is important when handling a VUCA world according to previous research on the subject (Bryman, 2018). The researchers decided that to investigate how to develop employees towards handling a VUCA world, they first needed to outline what was necessary in a VUCA world; meaning, they needed a greater understanding of the subject to investigate the research questions and fulfil the purpose.

The deductive approach laid a foundation when creating the interview guide. The researchers decided it was necessary to base the interview guide on individual competence factors that previous research has found are of profound importance when handling VUCA, to fulfil the thesis' purpose. The subjects studied are extensive and complex, and the researchers saw a risk that the participants would have been unsure of what to answer. Basing the interview guide on previously researched individual competence factors enabled the researchers to ensure that the participants would answer their questions. Therefore, they chose to dive deeply into how the professionals worked towards the previously established factors that they have included in their literature review. These individual competence factors that the interview guide is based on are; flexibility, adaptability, agility, the ability to see multiple perspectives, having a growth mindset, resilience and self-awareness (see further Section 3.7).

Hence, the research approach in the thesis was not inductive, which is an open approach that starts from the general and moves to the specific (Sekaran & Bougie, 2016). Instead, a more deductive research approach was chosen. The researchers first searched for concepts and conducted interviews designed after these findings. However, the study has not been deductive in a strict sense. For example, when constructing the interview guide, the researchers also included one open question and follow-up questions that were not based on previous research but were open to the interpretation and perspectives of the participant (see Section 3.3.1). Therefore the researchers can not state that this study is from a strictly deductive approach.

3.2 Research Design

3.2.1 Sampling

The data was collected through interviews with professionals responsible for the work with competence development in their organisation. Thus, the participants in the study had to be managers or in a position with responsibility for the work. Participants from different organisations, industries and business fields were contacted to get a broad picture. The different fields were, for example, retail, information technology, finance and manufacturing. All the companies included in the study are based in Sweden and vary in size from approximately 200 to 3000 employees.

In order to find and connect with the participants for the study, the researchers reached out to a joint contact at the beginning of the thesis process. This person can be equated to a gatekeeper, a person with important contacts who can create crucial opportunities for the research (Denscombe, 2018). The contacted gatekeeper had a broad network related to different organisations and people working in various fields with competence development. Initially, this person provided the first contact details to three of the participants in the study.

The participants in the study were selected through both purposive and snowball sampling (Bryman, 2018). Purposive sampling is used when aiming to reach a specific target group (Sekaran & Bougie, 2016). In the study, purposive sampling was chosen because of its relevance to answering the study's purpose and research questions since the researchers were specifically seeking professionals responsible for competence development in their organisation. Hence, purposive sampling was used to search for people in the field that matched the requirements. The researchers reached out to three participants from their own networks because of their suiting profiles for the study. Eight more participants were contacted by LinkedIn after researching fitting profiles based on the study's requirements. Only two of these answered and wanted to participate in the study, resulting in a total of five participants being found through purposive sampling. The purposive sampling was then complemented with snowball sampling. Snowball sampling is when the researcher uses suggestions or recommendations from confirmed participants to find additional participants who match the profile (Bryman, 2018). When the first three participants, recommended by the joint contact, had accepted their participation, they recommended others in their network from different organisations and fields that they thought would be suitable for the study. In total, seven of the participants were discovered and contacted through others' recommendations, resulting in a total sample of twelve participants. These are presented in Table 2.

Table 2 - Summary of the participants in the study.

Participants	Role in the company
Person A	Learning & Development Manager
Person B	Learning & Leadership Responsible
Person C	Head of HR
Person D	Head of Knowledge Management
Person E	Human Resources Director

Person F	Learning & Development Manager
Person G	HR Manager
Person H	Learning & Development Responsible
Person I	Learning & Development Responsible
Person J	Head of HR
Person K	Competence Development Manager
Person L	Head of Learning & Development

The participants in the study will be mentioned by their letter of reference according to Table 1, or as “interviewees”, or “participants”.

3.3 Data Collection Method

3.3.1 Semi-structured Interviews

To collect data for the study, twelve semi-structured interviews were conducted. The interviews lasted between 45 and 60 minutes. Semi-structured interviews are commonly used in business research (Sekaran & Bougie, 2016). The method opens opportunities for the researcher to ask complementary questions and find further explanations for the answers given by the interviewees and is, therefore, beneficial in qualitative research when the researcher wants to explore the experiences and perceptions of the participants (Bryman, 2018; Denscombe, 2018). As the study aims to investigate how professionals responsible for competence development work now and create a deeper understanding of how they can work in the future, the method is suitable in this study to allow the participants to explain their experiences and perceptions further.

The interviews were somewhat more structured in that the researchers had a set number of subjects and questions they wanted to cover; however, the questions were free to change in order depending on the interviewee's answers. However, it was made sure that each participant was asked the same main questions (see Appendix C) (Sekaran & Bougie, 2016). As described, the topics of the interviews were selected based on the literature review, following the deductive approach. In semi-structured interviews, the questions are formed in advance, but they are open to different types of

answers and can vary in order. The interviews can therefore take different directions, and the researchers can adapt the follow-up questions (Bryman, 2018; Cohen, Manion & Morrison, 2018). Therefore, depending on the interviewees' answers, the researchers could adapt follow-up questions; for example, questions on how they work could be followed up with questions on why and in what way, and thus dive deeper into their thoughts.

3.3.2 In-person and Digital Interviews

In designing the interviews, the researchers shaped questions that fit the study's purpose, used understandable language, and did not ask leading questions. The questions were designed with introductory, follow-up, and clarifying questions (Bryman, 2018) (see Appendix C).

Only one of the interviews was held in person, and eleven were held digitally. The digital interviews were conducted through Microsoft Teams, a platform the interviewees were familiar with. This is beneficial as the interviewees can feel more comfortable using software they recognise from before (Cohen, Manion, & Morrison, 2018). An advantage of conducting digital interviews is that the interviews can have a broader sample as the availability to participate increases when the participants do not have to be at the same location as the researchers (Cohen, Manion, & Morrison, 2018). This was beneficial in the study since seven participants were outside the researchers' geographical location. Another benefit is that the convenience of digital interviews can increase interest in participating. One disadvantage of digital interviews is that some technical difficulties can occur in digital programs (Bryman, 2018).

The researchers strived not to influence the participants' answers (Cohen, Manion & Morrison, 2018). Before the interviews, the researchers introduced themselves to the interviewees and explained the purpose of the thesis. In addition, information was presented regarding confidentiality, recording and that the interview was voluntary. The participants were also emailed this information before the interview with an attachment to the interview guide (see Appendix B and C). All of the interviews were conducted with both of the researchers present. Both researchers were visible on the screen, but only one researcher asked the questions, and the other observed and took notes. All of the interviewees were informed and aware of this. However, it was still possible for the other researcher to ask follow-up questions in the interview.

3.4 Data Analysis Method

The interviews were transcribed to code and quote the interviews and make it possible to create an analysis of the data. Transcription should be done thoroughly to avoid mistakes that could affect the analysis of the material (Bryman, 2018). It is beneficial to transcribe interviews, as it facilitates the comparison between data and enables the researcher to report accurate quotes (Denscombe, 2018). However, the researchers chose to follow a base transcription approach, a method for transcribing in which the focus is on what is said, not how it is said. Hence, not every word is noted, and pauses can be removed, which makes the outcome more understandable to the reader, and is a more time-efficient choice of transcribing (Norrby, 2014).

The researchers analysed the data by following what Sekaran and Bougie (2016) suggest in data analysis in qualitative research. The authors present how there are generally three steps in qualitative data analysis: data reduction, data display, and the drawing of conclusions. First, data reduction refers to selecting, coding and categorising the data (Sekaran & Bougie, 2016). Moreover, a thematic approach was chosen in analysing the data; this approach is used to find themes and traces in the interviews and to be able to categorise the material. The thematic approach is used to highlight key points and find patterns in the data by spotting recurring trends (Bryman, 2018). The researchers categorised the data into existing themes following the outline of the interview guide, following the deductive approach of the study. The data analysis results generated the categories and themes presented in Figure 1.

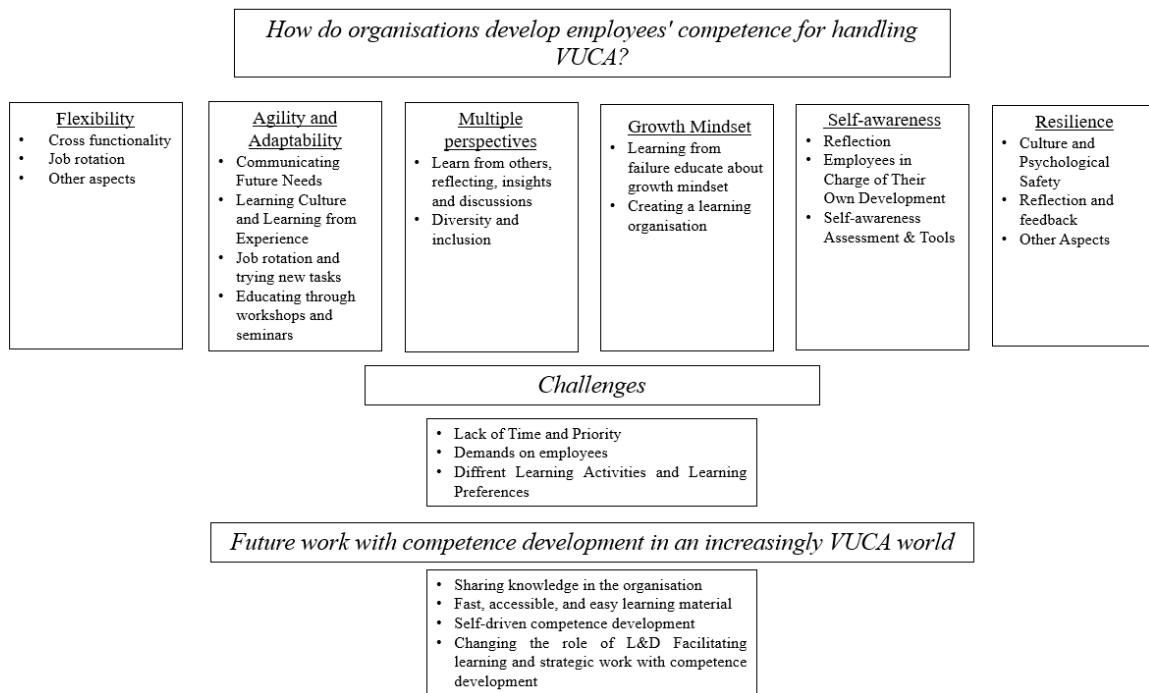


Figure 1: Categories and themes utilised in the data analysis.

Subsequently, the researchers presented the data via data display, where they presented quotes from the interviews to understand and interpret the data (Sekaran & Bougie, 2016). This is displayed in Chapter 4. Finally, conclusions can be drawn to answer the research questions by determining the identified themes from the collected data (Sekaran & Bougie, 2016). This is conducted in the final chapter of the thesis, Chapter 6.

3.5 Quality of the Data

The data quality in the study is addressed from the criteria of trustworthiness and authenticity. Lincoln and Guba (1985, in Bryman, 2018; in Bryman, Bell & Harley, 2019) explain that these terms have their equivalence in the terms of reliability and validity. Lincoln and Guba (1985 in Bryman, 2018) state how it is necessary to specify ways of assessing the quality of qualitative research by looking at the terms trustworthiness and authenticity.

3.5.1 Trustworthiness

Lincoln and Guba state how four criteria make up trustworthiness (1985 in Bryman, Bell & Harley, 2019). These are; credibility, transferability, dependability, and confirmability (Bryman, 2018).

One way to ensure credibility is through clarification (Lincoln & Guba, 1985 in Bryman, 2018; Sekaran & Bougie, 2016). The researchers contacted the interviewees through email when some questions or concerns needed to be explained. This was, for example, made when a technical disturbance occurred in one interview to ensure the data's credibility (see Section 3.7). Moreover, in every interview, the researchers ensured that the participants understood how the different concepts were defined in the study to confirm that the participants understood the topics in the same way and talked about the same topics as the researchers did. The researchers ensured this by confirming the concepts with the participants; this a validity issue; for example, do the participants talk about one subject, and the researchers talk about another one (see Appendix D). Furthermore, the interview data was anonymised to ensure that the interviewees could speak their minds freely. The researchers could also ensure credibility by ensuring that the data is interpreted correctly. Since there are two researchers, this could limit the misinterpretation of the participants' answers by ensuring that both researchers interpret the data similarly. That way, misunderstandings could be reduced (Bryman, Bell & Harley, 2019).

Qualitative studies are often oriented to the context in which they are studied (Bell, Bryman & Harley, 2019). Since the study investigates how professionals working in different organisations work with competence development for employees to handle a VUCA world, the transferability of the data could be assured by studying different organisations. Hence, the insights and data collected are not specific to a particular situation or organisation, making the insights possible to be transferable to other environments in a similar context (Bell, Bryman & Harley, 2019).

The dependability indicates how well the researcher can explain and argue for their research approach (Lincoln & Guba, 1985 in Bryman, 2018). The researchers have ensured dependability by taking a scrutinising approach and tried to outline and accurately explain all the phases of the research process to guarantee that all the steps were included. Lastly, confirmability concerns that researchers should not allow personal values to affect the research. The researchers have not let personal values impact the data or ask leading questions during the interviews. This could be ensured by being two researchers, thus being able to control and review each other.

3.5.2 Authenticity

Authenticity is a criterion for qualitative research that consists of five parts (Lincoln & Guba, 1985 in Bryman, 2018). The first part is fairness. To establish fairness, the researchers addressed all participants' perspectives. Thus, by ensuring that nothing had been altered throughout the process, the researchers ensured that they gave a fair portrayal of the views of all the interviewees. They read the transcripts several times and listened to the recorded material again. The second part, ontological authenticity, concerns that the interviewees participating in the study should have an improved understanding of the researched topic after their participation. However, since the participants were professionals responsible for the competence development work in their organisation, they were already well-informed about the study's topic before the interview. Still, to reach ontological authenticity, the researcher aimed to provide the interviewees with the opportunity to reflect on their work during and after and improve their understanding of the topic.

Third, pedagogical authenticity covers whether the participants have understood how others perceive the subject. All participants will be allowed to read the paper when it is finished, thus allowing them to reflect on and understand others' views. The fourth and fifth criteria of the concept of authenticity are catalytic authenticity and tactical authenticity. Catalytic authenticity relates to whether the study has enabled participants to change their situation, and tactical authenticity concerns whether the study has created more favourable opportunities for the interviewees to take the actions required for change. The researchers intend that all participants will have access to the paper when it is completed and that the paper will give insights to the interviewees on how to work with the researched topic. Hence, the researchers aspire for the paper to contribute to creating the opportunity to change their situation, act on the study's conclusions, and thus take the necessary measures required (Bryman, 2018).

3.6 Ethical Considerations

During qualitative research, it is important to consider ethical considerations. This study has considered four ethical requirements when conducting research; information, consent, confidentiality and utility (Bryman, 2018). The information requirement concerns that the researcher must inform the participants in the study about its purpose, the thesis' various parts, the fact that participation is completely optional, and the freedom for the participants to end their participation at any time. Before conducting the interviews, all participants were sent this information (see Appendix B and C).

The consent requirement refers to the fact that the participants should have the right to control their participation. They should be free to choose how long they want to be involved and have the option to leave at any time. As stated, participants were given written information about this before the interviews and were once again informed orally before starting the interview. The confidentiality requirement concerns how information about participation in the study must be treated with the greatest possible confidentiality. In the study, this has been done by anonymising the interviewees. For example, characteristic statements from the participants have been omitted, together with their names and the name of the organisations. The participants are presented in Table 2, together with their roles in the organisation. However, two persons had distinctive titles; therefore, their titles were slightly changed to keep the participants' anonymity.

Finally, the utility requirement entails that the information and the data collected during the study may only be used for the purpose of the thesis. Therefore, the information gathered will only be utilised for the thesis's purposes, and after the thesis is finished, all information will be removed (Bryman, 2018). For instance, email conversations and audio recordings will be removed.

3.7 Method Discussion

In this section, the researchers will discuss the methodological choices of the study. There are both advantages and disadvantages to the study's chosen methodological approach. A research challenge the researchers had in mind for the study was how the number of participants would affect the study's generalisability. The representation of different sizes of organisations, different industries, and the number of participants all determine the scope of the study and affect the generalisability (Bryman, Bell & Harley, 2019). The larger the study's scope, the more generalisable it will be (Bryman, 2018). As previously mentioned, due to the time frame and the research purpose, where the researchers wanted to go deep into the participants' answers, a total of 12 interviewees were reached. If the purpose of the study had only been to get a broad overview of the participants' thoughts, not requiring deep and time-consuming interview questions, it could have been possible to have a larger scope and include more participants. Likewise, if there would have been a larger time frame, more participants could have been included. The researchers are aware that the generalisability of the study is reduced with a smaller scope; however, since participants from different organisations in various branches and varying in size were interviewed, the researchers believe that the study still presents findings that

could be generalisable to some extent. For example, the study could be generalisable to a similar setting and context. However, the researchers are aware that the generalisability is low for a larger population. Concerning the study's replicability, the researchers believe that the study could be replicated by using the same research design and interviewing other professionals working with competence development.

In the study, the researchers aimed to investigate how professionals working with competence development worked and could work in the future for employees to handle a VUCA world. Hence, the researchers aimed to have participants who, because of their working position, were already well-informed about the concept of competence development in organisations. However, since the researchers aimed to study a more particular angle of competence development, where the purpose is to enable employees to handle a VUCA world, the interviewees' awareness and information about the subject of VUCA could have been a potential research challenge.

To avoid this challenge and to ensure the ability to answer the research questions, the researchers were aware of and considered the possibility of the interviewees not being familiar with the concept of competence development to address the VUCA world. Therefore, the researchers did not only ask open-ended questions about how competence development towards a VUCA world can be done, which the participants might have felt unsure about or not even been able to answer. Instead, to minimise the risk of the interviewees finding the questions too vague to understand, the researchers chose to use the deductive approach and base the interview guide on a set number of individual competence factors of importance when handling VUCA. This created more concrete questions that could be easier for the interviewee to understand and reflect on. The risk is that the researchers only made the participants reflect on the included factors, not their thoughts on how they work with competence development towards a VUCA world. However, the researchers aimed to mitigate this risk by sending the interview guides to the participants before the interview. The researchers, therefore, primed the participants so they had time to reflect on the topics and questions about their work to be discussed beforehand to minimise the risk further. However, one limitation of giving the participants the questions beforehand is that they can get script-driven. The researchers aimed to mitigate this by choosing semi-structured interviews that allowed the researchers to include both broad and open questions and use follow-up questions to dive deeper into the participants' answers, avoiding them getting script-driven.

There are both advantages and disadvantages to the use of digital interviews. During two of the interviews, there were some technical issues where one participant could not enter the meeting, resulting in a new meeting link being sent out from that person's email instead. In another interview, there was unstable wifi causing disturbance for a short period. This could have affected the interview situation and, thus, the data in ways that the participant might have felt uncomfortable or stressed. However, the researchers ensured that this did not affect the participants by ensuring they did not feel stressed and that there was plenty of time. However, the technical disturbance became noticeable in the transcription, which became more difficult in that interview; the researchers then had to contact the interviewee again by email to confirm specific explanations that the disturbance had caused.

Furthermore, the researchers chose only to present the participants' roles and not include their company's size and industry in the table of participants (see Table 2). Using such a table can create a clearer picture for the reader and the understanding of the sample group. However, this choice was made to ensure the participants' anonymity since many were contacted through snowball sampling. Therefore, their identity could be easily identified if job title, company size and industry were presented together. Moreover, another risk is considering the use of snowball sampling, there can be a risk that the participants have recommended others they know and therefore are not completely open in their interviews. However, the researcher does not see this risk as they have ensured the participants that they will not include information of personal characteristics such as name or company, enabling them to speak their minds freely. Lastly, one critical discussion is that the interviews in the thesis were held in Swedish. The researchers decided this was beneficial because all participants were from Swedish-based companies, lived in Sweden and spoke Swedish, just like the researchers. The researchers, therefore, chose to conduct the interviews in Swedish. However, each interview had to be translated into English when analysing the data, thus increasing the risk of missing or leaving out material in the translation. However, the researchers see that this may be mitigated again by having two researchers, as both researchers analysed the data and reviewed the transcriptions several times to ensure no misinterpretations.

4 Results

In the following chapter, the researchers present the result of the data from the twelve semi-structured interviews. The chapter is divided into subchapters following the data analysis method (see Figure 1). First, the results on how organisations develop employees' competence for handling VUCA are presented. The results are structured after the individual competence factors described in the literature review; flexibility, adaptability, agility, the ability to see multiple perspectives, having a growth mindset, resilience and self-awareness (see Section 2.4). Second, the researchers present the results of the challenges, and third, the question of future work with competence development in a VUCA world is presented.

4.1 How do Organisations Develop Employees' Competence for Handling VUCA

4.1.1 Flexibility

Cross Functionality

Person A, B, E, and F all mentioned that cross-functional training activities and putting together cross-functional teams is one of the keys to developing employees towards flexibility. Person B explained how in their work, this was done by emphasising the need to exchange experiences between staff. S/he elaborated and explained deeper on how the work was currently being done, and said:

"And then I also try to encourage the exchange of experience between employees. [...] I see that the effect of training can be quite low, and what you often need is to be able to discuss the challenges you have here and now with others and get other perspectives. [...] We have a number of mixed groups and constellations of employees where we schedule and run such experience exchanges, depending on different projects or new work that comes up, which is also partly about increasing flexibility, I think" (Person B).

Similarly, Person E explained how cross-functional activities were one method they used to increase employees' flexibility. Person E said: "We have created cross-functional groups, and there is a lot you can get out of them. [...] We have to work together and to work cross-functionally to work smarter together" (Person E). Both Person B and Person E explained that these cross-functional activities and teams are from different departments, locations and levels in the organisation. Person A mentioned similarly to Person B how cross-functionality, sharing experiences with colleagues and getting other employees' insights and feedback creates flexibility. Person A explained further that employees could, through cross-functional activities, try different solutions resulting in increased flexibility and thereby getting new insights. Person F explained how the focus in their work with cross-functionality concerns putting together cross-functional teams to work with competence development towards flexibility. S/he explained that the work is done through workshops, where employees from different areas are grouped. Person F said:

"I think it's about constantly thinking about enhancing cross-functionally and putting together teams according to task and not according to role, that's one way to increase flexibility. [...] You must constantly work on your flexibility in order to be employable. I would say that we do it on many different levels, integrated into other processes so that it becomes a way of working but above all through cross-functional teams" (Person F).

Job Rotation

Another common theme was job rotation towards flexibility. More than half of the participants [A, D, E, G, H, J, K] explained how having employees try different things and work assignments and working with job rotation is how they work with competence development towards flexibility.

Person A explained how employees get to try out different things by job rotation and how that is one way they work with competence development towards flexibility. S/he explained: "One way to broaden your competence is to learn several steps with job rotation by trying different things" (Person A). Person D explained how changing different work assignments is beneficial in the competence development towards flexibility as employees develop several skills creating flexibility amongst themselves. S/he said: "But also with reskill giving them the possibility to change tasks creates flexibility" (Person D).

Person E also mentioned that job rotation was something their employees had asked for. S/he explained that this was beneficial toward flexibility and that they had created job rotation opportunities: "We encourage all kinds of job rotation, even if it's just a day or half a day when you

get to go down to [another department] and see something else" (Person E). Person J described their work similarly to Person E, but that their work could be improved through working more with structuring and visualising the work. S/he elaborated on the work and explained: "But you can often get three people swapping jobs, intern with each other, or shadow each other. And it has very good results" (Person J). Similarly, Person K explained that their work towards flexibility could be seen as job rotation where employees also get to try different things. However, K explained that the job rotations often come from the employee's initiative to broaden their skills or to try different areas for development. S/he explained:

"[...] We have that you can try out different parts, you can shadow someone who has a different position than you, for instance, in [another department]. [...] So both for your development but also to get a better picture of what the company looks like as a whole" (Person K).

Person G and H explained that they work with job rotation in another way, differing from the rest, in their work with competence development towards flexibility. Person G explained that in their work, employees get the opportunity to attend a training activity program where they can develop in a new role, thus learning and training towards new work duties and developing in that. Person H also mentioned job rotations similarly and explained how in their work, they work with internal training initiatives so that employees can try different jobs and eventually change positions. Person H explained, "We have done quite a lot with business acumen, so it is internal rotations, you can be loaned to another part of the organisation" (Person H). When answering how this works, Person H explained that an employee is stationed at, for example, another department for a period where he or she usually does not work to try out new assignments.

Other Aspects

In contrast, two of the twelve participants, Person I and Person L, had differing answers on how they work with competence development towards flexibility. Both participants explained that they believe the work with competence development towards flexibility originates from their work with creating a psychologically safe environment. In answering how they work with fostering a psychologically safe environment, they explained that there could be workshops or seminars on the subject that anyone can sign up for. Person I further emphasised that psychological safety needs to be educated and talked about for employees to be able to develop towards flexibility. Person L had a similar reasoning and mentioned that for competence development towards flexibility to be implemented, psychological safety needs to be there. Person L said:

“Our fundamental belief is that to have access to those abilities, we need to have, for example, psychological safety; employees need to feel that there is trust at the bottom and that they can come up with unfinished, slightly wild ideas and to do it without worrying that it will be knocked down” (Person L).

In contrast, Person C stated that s/he could not see how their company works with competence development towards flexibility and that flexibility cannot be trained for. Person C said:

“I think it's very difficult; I don't think you can develop this competence by like sending someone on a course to become more flexible. But it is an important competence for our organisation and for the development of our organisation to succeed. But it's more about personality than something you can develop” (Person C).

4.1.2 Agility and Adaptability

The researchers chose to combine the results from the individual competence factors of agility and adaptability. This was made because the results showed that the same themes were presented when the researchers categorised and closely analysed the data. They were therefore seen as difficult to distinguish from each other.

Communicating Future Needs

Four participants [D, H, I and J] explained that when working to increase employees' adaptability, the first step is to communicate the future needs to make employees aware that the future might require them to be adaptable. Person D explained:

“Employees need to be adaptable. In the internal portal we have created, we describe competencies that the employees will need in the future because we want to encourage employees to develop to future-proof themselves. It is much about such soft values, and also about what different types of roles will be needed in the future. Then the employee can select certain areas of our company, and then see what certain roles that we will need more of” (Person D).

Person H mentioned how their work with competence development for agility is done in the same way as with adaptability and that they tried to communicate future needs. When discussing agility, Person H explained: “We try to talk about that mantra all the time, things are changing all the time,

you have to keep up, you have to update your skills, you have to have lifelong learning, and you have to plan it every day” (Person H).

Person E described that communicating and being open to that jobs and the world will change is a part of their work towards agility:

“We try to work with having an openness to the fact that jobs will change, jobs will look different in the long term, then you have to think about how your job could change, and how could you then change to another position? If you do not have the knowledge, you still have the desire to learn, and I think that openness is important” (Person E).

Moreover, three participants [D, H, J] talked about how making employees adaptable is required for them to be able to take on new assignments and roles in the organisations in the future. Person H stated that the employees need to understand that they might need to be adaptable in the future since jobs can change. S/he explained:

“The best thing to do is to try to make everyone aware that continuous lifelong learning is required, the jobs will not last forever, they will change, disappear, and there will be new ones of a new nature. If you just look back a few years, most people can probably say that things have changed a lot. So we need to remind everyone: things will change again” (Person H).

However, Person I argued that in addition to communicating to the employees why they will need to be adaptable, the organisation also needs to communicate the importance of learning and why they need to keep learning to stay ahead in the changing world.

Learning Culture and Learning from Experience

Four participants [A, B, K, L] talked about how their work with competence development towards adaptability was connected with creating a learning culture within the organisation. Person A talked about building an environment that enabled learning. Person A said: “If we can build safe teams, I think that we can go a long way towards giving employees the ability to deal with complex situations and to be adaptable and flexible” (Person A).

Person L explained how they did not do anything, in particular, to work towards adaptability, but described that creating a learning culture played a big part. S/he said: “I think we could strengthen being adaptable through certain tools, but I think people have a journey to make in their mindset and the culture” (Person L). Furthermore, besides communicating future needs, Person H also agreed and

stated that in working towards making employees adaptable, there needs to be a foundation of a culture in which continuous learning happens. Person K also mentioned that they worked with competence development towards employees' adaptability through creating a supportive environment in the organisation that supports continuous learning. Person K said: "For employees to be confident in adapting, we have much support as a tool in our activities" (Person K). Another aspect that Person B stated was that in their work with developing employees, they work with learning by doing, where employees learn from what they have previously experienced. Person B explained that this increases employee adaptability. S/he said:

"We have just started working with the importance of learning towards [being adaptable] and not seeing them as just a course, but it takes time [...]. You add knowledge and want employees to practise them in their everyday life and test them so that when they then come back [...] they have had time to train in between and thus have had time to apply the what they have learnt and have new experiences to learn from, concerning being adaptable" (Person B).

Person F described that they create opportunities for learning from experience in their work with competence development for employees towards agility and that they have a toolbox to support their competence development activities. S/he explained:

"We have a digital toolbox where there are various tools; for example, we use After Action Reviews, which is one such thing that is used in the agile world and that we advocate using in all projects, to bring in the agile way of working, so we try to support with various tools and processes to become agile" (Person F).

Job Rotation and Trying New Tasks

Person C described that they work with creating adaptable employees in the same way they work towards flexibility. S/he explained that they work by having the employees try different tasks and by using job rotations, thus creating adaptable employees. Person C said: "Being adaptable, flexible, and managing high levels of change are all part of the same package" (Person C). Person E also explained that they work with the mobility of employees in the organisation to make employees adaptable. Person E said, "[Rotations] make you adaptable. There is a lot of mobility internally in our organisation, but it is also necessary, we need to adjust the organisation constantly" (Person E).

Person F also mentioned that their work with adaptability was similar to their work with other already mentioned factors. S/he elaborated and explained that their work with adaptability comes back to

what s/he had talked about earlier and described that their work was about creating multiple opportunities for learning and for employees to try various parts in their work to become more adaptable. Person F explained:

“The concepts mix a bit for me, but I would say [...] to see that these change all the time, and this means that we have to open up the competence development activities for all employees. We don't have that if you have this role, you need to have this competence, and then you can take these activities. We have removed that just to be able to be more open, and to be able to work more with strategic competence development, [...] and to be able to work more with upskill and reskill of all employees” (Person F).

Moreover, Person A, Person E and Person K explained that they work with increasing agility in the same way as they work for increasing flexibility; through job rotation. Person A also emphasised how job rotation can contribute to integrating learning into everyday life. S/he said:

“But this is related to the previous question, it creates flexibility: when you learn, bring it to your everyday life, get to try it out, it creates greater flexibility, that you don't just learn it through the textbook but get to go out and try it out as well” (Person A).

Educating Through Workshops and Seminars

Moreover, a common theme on how to work towards increasing agility in employees was to educate the employees through workshops and seminars. Five participants [B, C, D, I, J] explained that they work with holding workshops and seminars about the subject where they can educate about the agile work method. Person B explained: “It is a specific group that works with it, they are agile coaches who are responsible for the competence development and are responsible for training employees in an agile way of working” (Person B). Person C said similarly how they work with workshops on the agile way of working:

“There are agile working methods, and our way of working is very agile in some departments. This is something we can educate and train employees in. We train new people who come to us in that way of working, we may not send them on a course because it is already a way we work, but the new people who come to us have to get into that way of working” (Person C).

Both Person I and Person J explained that in their work, they have workshops on the agile way of working. Person J explained: “When we talk about VUCA, we also talk a lot about agility and how we can work more agile” (Person J). S/he elaborated and explained what they did in these workshops:

“Everyone had to make behavioural sprints, so you had to work on your behaviour within the agile methodology. Even those who did not work in IT also became aware of the agile working method. We got a good spread which was good for us, to take the first steps” (Person J).

Person G described how s/he could not see how their work with competence development was conducted, neither regarding the development of agility nor adaptability. Person L could not see how their work with competence development was done towards agility but did mention that: “It might be more helpful if you as a company stated that you believe in the agile way of working, and that's not where we are as a company” (Person L).

4.1.3 Multiple Perspectives

Learn from Others, Reflecting, Insights and Discussions

There was one common theme that was brought up by ten out of twelve participants [A, B, C, D, E, G, H, J, K, L] on how they work with competence development for employees to see multiple perspectives. They all mentioned working with activities supporting reflection, discussions, learning from others, and meeting other employees in the organisation to enhance their abilities to see multiple perspectives.

Person A explained that for employees to see multiple perspectives, they worked with activities where employees could discuss with each other. Person A explained that this is done by creating activities that allow different forms of discussion and that, in that way, it develops the ability to see multiple perspectives. Person A talked about how these activities were a way of learning from others, bridging, and sharing experiences and perspectives. S/he said: “We have elements where you form working groups and discuss with each other; all these things contribute to turning it around and getting other peoples’ perspectives” (Person A).

Likewise, Person B and Person D explained how they include activities that boost knowledge sharing in their work. Both explained that these activities allow employees to share experiences and, thereby, develop seeing multiple perspectives. Person D said:

“That you have that reflection and learn things together and share and with others, that way you are constantly open to other ways, so yes, we try to bring people together like that. I think this contributes a lot to get other perspectives and contributes to employees being able to see multiple perspectives” (Person D).

Person H had similar reasoning to Person A, Person B, and Person D. S/he explained that their work with competence development toward making employees see multiple perspectives is done through activities where employees meet and discuss subjects with each other. This is also something that Person J mentioned. Person J explained that they have activities where employees meet, discuss and reflect together, and that these types of activities create the behavioural change needed to see multiple perspectives. S/he explained: “A lot of competence development is about processing, rubbing against each other, reflecting, and then getting this behavioural change” (Person J).

In line with this, Person K described that they work with gathering employees in activities where they reflect, discuss and get new insights. Person K said: “[...] to share their experiences with each other. To both learn from each other and create opportunities for discussion.” (Person K).

In contrast, Person C described that working by sharing experiences with others and seeing different perspectives was how they normally work in their organisation, but that it was not something that they do in their work with competence development. Person C explained: “[Working with multiple perspectives] is how we work in general, and it is also something that I see as difficult to train employees in. It is really about an approach” (Person C). However, Person C then discussed that in their work with competence development, they have a program where employees get the opportunity to meet and work with other employees worldwide, which s/he thinks contributes to learning from others and seeing multiple perspectives.

Two of the participants, Person E and Person G, said that they work with their competence development towards seeing multiple perspectives in a similar way to how they work towards flexibility, through cross-functionality. Person E emphasised that it is about using other people's knowledge to see multiple perspectives. S/he said: "I think it's about using each other's skills, and to do it by listening to different groups and working cross-functionally in groups so that we actually use each other's knowledge and experiences" (Person E). Person L similarly described their work. S/he described how in their work with competence development towards seeing multiple perspectives, they work with reflecting teams. Person L said the following:

“We try to work a lot with social learning; there is so much good expertise internally in other colleagues. We work with a method called reflective teams. Then you can gather a group and bring a challenge with you, you can do it digitally or physically, and then you get the group's help to come up with solutions to those challenges” (Person L).

Diversity and Inclusion

Another theme brought up by two participants [F, I] was working with diversity and inclusion to enhance employees' ability to see multiple perspectives. Person F described their process of composing teams that are beneficial to make employees see multiple perspectives. F said the following:

“Every team you put together is a well-composed group, we have a process [...] that means that if we have an employee who leaves, we don't put an employee with a similar profile there but someone else to get multiple perspectives” (Person F).

Both Person F and Person I said that they have seminars and workshops about diversity and inclusion, focusing on making their employees able to see multiple perspectives. Person I explained that it is structured in their organisation and in their work and that they have it with them in everything they do. However, the participants also explained that they have special activities and actions where they educate about diversity and inclusion and what multiple perspectives are to develop an ability to see multiple perspectives.

4.1.4 Growth Mindset

Learning from Failure and Educating About Growth Mindset

Eight of the twelve participants [A, C, D, F, H, I, J, L] stated they work with competence development towards a growth mindset by educating employees on the subject. Person J explained that in their work, they organise talks and discussions in groups to educate employees. However, Person J explained that only educating about it is not enough; the behavioural change also needs to happen. S/he stated:

“[Employees] do not feel completely at home with these concepts, even though they have gained the knowledge they need, they do not know how to work with it further. It is very easy in the beginning to give the knowledge, but then getting the change to happen is the difficult part” (Person J).

Person A explained that they try to work with a growth mindset in everything they do and have it as an underlying assumption when conducting competence development activities. Person A explained, “We talk about it a lot and have it as one of our key pillars: ‘everyone can, and you learn by trying’” (Person A). Person C stated that they build a growth mindset by educating and spreading knowledge

through workshops and lectures. Person C said: “I think it's about raising awareness that there is something called growth mindset and that [...] we need to spread that knowledge and information in the company that we believe that it is okay to fail” (Person C). Person D also worked with spreading knowledge: “We have also had webinars and lunch workshops but also lunch seminars where growth mindset is one [of the subjects]” (Person D). Person F stated similarly: “We have made a big effort to actually educate about growth mindset where we have had learning activities [...] where we talk about it and where we have had open seminars” (Person F).

Similarly, Person L stated that in their work, they have a growth mindset induced in workshops for their employees as discussion subjects. Person L explained: “Via workshops with discussions between employees where they can talk about their best mistake, and what they learn from it, but also a lecture on what growth mindset is” (Person L). Person, I explained that in their work, they also have workshops, but more interactive ones where employees get the opportunity to talk about having a growth mindset in relation to their everyday work and reflect on when they have failed and how they overcame it. Person I said:

“In these workshops, we have nothing where we just have straight lectures, but we have a lot of interactive work and storytelling, where you can tell about your own experiences when you have failed” (Person I).

Creating a Learning Organisation

Another theme mentioned by five participants [F, G, H, K, L] was that the work with competence development towards a growth mindset continues deeper in creating an environment and a culture that fosters that type of mindset. Person F explained that having a growth mindset is embedded in their perception of what a learning organisation is and part of the learning culture they are striving for. Person G explained that working with a growth mindset is about letting employees develop and creating an environment where development is a part of how the organisation functions. Person H explained that other than educating about a growth mindset, s/he thinks that working towards building a growth mindset can be challenging since it is rooted in the entire organisation. Person H said the following:

“Promoting a growth mindset goes deeper in the organisation. It has to be in all parts of the organisation: that employees get challenged, have opportunities to develop, get pushed forward, and that there are opportunities to be in a developing zone” (Person H).

Person H emphasised that it needs to be a learning organisation for a growth mindset to be present, which is something that Person K also described in their work and stated that it is about creating an environment where it is safe to fail. Person K said the following:

“I would rather see that we talk about [failures] as if it is a challenge [...], and that employees open up and that they can be completely honest if something is difficult or challenging. Then we can set a plan for how we will be able to process this in the future and create opportunities from the challenge” (Person K).

Person L also explained that even though they have workshops and courses in a growth mindset, s/he still thinks that it is embedded in a learning organisation. Person L described: “And also when we talk about learning and what are the things that lead to a learning culture, but also linked to driving employees' own development and what we need to do” (Person L).

Other Aspects

In contrast, Person B described how s/he thinks that the work with competence development towards a growth mindset is hard to achieve and stated: “the competence initiatives we do might lead to a growth mindset. However, we do not do anything explicit in our work.” (Person B). Person B elaborated and explained that s/he is unsure how it can be done. Person B said the following:

“I would say that our work with [a growth mindset] seems to be embedded in the activities, but I do not actually know if we manage to implement or get it out to the organisation [...]. I think that it is very challenging to influence people in a way, and talk very easily about it” (Person B).

Person E also explained that in their work, s/he could not see how the work with competence development towards developing a growth mindset is currently being done. However, Person E mentioned that s/he sees the need for it and has thought about it. Person E said:

“Actually, it is not explicit, but I raised this subject with the management group, but I would like to see how to work further with this [growth mindset] towards employees, but I would first like to anchor it in the management group before going down to the middle management level, and then the employee level. But I think there is an advantage in stopping and thinking about it” (Person E).

4.1.5 Self-awareness

Reflection

Four participants [A, D, G, H] talked about how they work to increase self-awareness through reflection. Person G and H emphasised the importance of working with reflection both alone and with others in groups. Person G elaborated: “I think that way you can get [employees] to become self-aware when you discuss in groups. It is through others that you learn about yourself.” (Person G). Person A put forward another aspect when s/he described that it is important to reflect, make use of it, and put the learning into practice. S/he explained that they work by allowing employees to reflect on their learning experiences in their everyday life together with their colleagues and manager. Person A said:

“But we also see when we move the training out, that when I do an exercise in my everyday life, I get the experience with my colleagues, [...] I share it with the colleagues that I do the reflection with. Then they also get their manager’s feedback and share that with them” (Person A).

Person D explained that they worked with reflection on an individual level and with After Action Reviews, to create self-awareness. S/he described that reflection can make the employee get to know themselves better. Person D elaborated on how to create self-awareness through reflection and on getting it into practice in everyday life. Person D said:

“I think it is important to incorporate reflection in everyday life [...] that you make sure that discussion or reflection is built in so that there is an exchange of experience taking place. I think it is important to get the reflection in there, and also in these meetings so that you feel how good it is to reflect and that you hopefully apply it later in your everyday life” (Person D).

Employees in Charge of Their Own Development

Four participants [A, B, F and J] explained that they worked with putting employees in charge of their own development to create self-awareness. Person A, who had previously mentioned reflection as a method, also talked about how they work by putting employees in charge of their own development. Person A explained:

“Self-leadership from a competence perspective, how do we make sure that all employees take charge of their own training without any manager having to say anything? It is something that

is always on our agenda, and we want to see how we can do more in the future. That's probably part of [self-awareness] as well” (Person A).

Person B also talked about how they emphasise the importance of employees driving their own development. Person B said:

“We have just launched a new learning portal highlighting the importance of driving your own development and inspiring employees to do this themselves. We have produced videos and a checklist on how to do this in practice” (Person B).

Person F and Person J explained that employees could take the lead on their own development in their work, take courses and attend different activities depending on the employee’s choice. Person F explained that they provide several workshops where the employees can decide which they want to attend. S/he emphasised making training, especially the training targeting to develop oneself, available to anyone that is interested, and that training should not be limited based on the employee’s role. Person F described:

“To just open up and make [activities] available to everyone, I think there is a hunger to work with developing yourself in a completely different way that not only the employer says because it is so much more fun to work with yourself than with for example GDPR, you know” (Person F).

Self-awareness Assessment & Tools

Another theme mentioned by more than half of the participants [B, C, E, H, I, K, L] was using assessments and tools to develop self-awareness. Person B, who also thought employees should be in charge of their own development, explained that employees get an increased self-awareness through different learning tools where they can assess and see their strengths. Person B said:

“We work a lot with our [self-assessment program], that we work with on the demand of employees. There we look at how you can get to know yourself. That training can be in all kinds of forms, both meetings digitally and E-learning” (Person B).

Person E describes that in their work, they also work with different tools for employees to understand themselves and the group and how they act in different situations. Similarly, Person C said they have tools that employees can use to gain self-awareness: “There are certain things you can get help with, and I am sure it's in our e-learning, things you can take support from as an employee in there” (Person

C). Person H, Person K and Person I also described how they work with assessment tools to increase self-awareness. Person H said:

“We have a competence assessment. [...] A couple of competencies that are linked to your job, that you are evaluated towards. You have to reflect on yourself and on your level of competence, and then your manager gives input. It's really the only tool we have that makes you self-aware of your competence, but we don't use it very much, not very widely” (Person H).

Person I said similarly:

“They get to do different tests, different forms where you include self-awareness, [...] where you do tests and see what my shortcomings are and work on your own self-awareness. In any case, it applies to everyone, [...] so there you can do such tests, to see how others see me but also how I see myself” (Person I).

Person L talked about how in their work, they use a tool where both the employee and other colleagues can assess that person's strengths and weaknesses, which creates self-awareness. Person L said:

“We have done 360 analyses. You have to grade yourself [...] to get a look at yourself in a 360-degree view to get a better picture of yourself and others. Often, for example, women [...] tend to rate themselves lower, and then it's nice to see that this is not how you are perceived, so you can correct your self-image and work on it. So I think self-grading is a tool for employees to increase their self-awareness” (Person L).

4.1.6 Resilience

Culture and Psychological Safety

A recurring theme amongst half of the participants [C, E, F, I, J, L] was their belief that resilience could be developed by working with the culture in the organisation. The most recurring thoughts were working with creating psychological safety, and a culture where it is allowed to show mistakes were brought up.

According to Person C, having the right culture is a prerequisite to creating resilience. S/he was not sure that competence development in itself could create resilience, saying: “I think it is very difficult to create competence development for that. [...] In order to have a group of people who actually

manage to be resilient and bounce back when it is tough, you have to have a very safe culture” (Person C). Person C explained: "If you are a company with a bad culture, you can do as much training as you want or support the managers as much as you want, people will not be very resilient" (Person C). Person F also thought that the culture was a main component when building resilience in employees; s/he said: "[...] if you work in a structured way with a growth mindset and you have it in your culture. I think it comes automatically, then" (Person F).

Person I highlighted that they have to create psychological safety and a feeling that mistakes are allowed to boost employee resilience. S/he said:

"What I come back to is creating openness, trust and vulnerability, and how you can create psychological safety in a group. [...] So yes, that's also something we work a lot on, learning from mistakes, [...] being accepting and that we have to make mistakes and dare to fail" (Person I).

Also, Person J expressed the importance of building psychological safety and leading by example in the organisation to create resilience.

"We have talked a lot about psychological safety [...]. From the management side, we have also shown examples of when we have failed and what they have done instead in order to come back. I think that is important in what signals you send to the organisation" (Person J).

Likewise, Person E and Person L highlighted having a culture of daring to show mistakes. Person L stated that they needed role models in their organisation and the management team on board to lead by example and show that mistakes happen and that you learn from them so that it becomes a part of the mindset and the culture in the organisation. Person L said:

“I think it's about the culture, and we've talked a lot about how we need internal role models in this. [...] Just the vulnerability to dare to talk about it; you don't take a course in it, but you see that others around you dare to be vulnerable; it also becomes a mindset and a culture” (Person L).

Person L also said they intend to start working more with educating about psychological safety, creating psychological safety in teams and leading in turbulent times to increase resilience.

Reflection and Feedback

Moreover, reflection, self-reflection and feedback were repeating themes on how to develop resilience, which was mentioned by five interviewees [B, D, E, F, I]. Person E stated that they worked with self-reflection and feedback combined with increasing resilience. For instance, they used a tool in which the employee first reflected on their own strengths and weaknesses. Person E highlighted their work with a reflective tool in which employees get to reflect on their strengths and weaknesses and then also do so together with a colleague.

Person D thought that working with feedback and gaining insight about oneself was an important aspect to increase resilience and highlighted the relationship between manager and employee. Person D said: "I also think that working with feedback is important [...] It's also about the manager coaching and seeing, supporting and asking questions. It's really important to get that insight about oneself" (Person D).

When it comes to feedback, Person J explained that feedback needs to be constant and often. S/he thought it is better to have short feedback talks often than long ones seldom. "We recommended that they frequently have 15-minute feedback talks so that they meet and talk often" (Person J). Person L and Person D stated that feedback does not even have to be structured through meetings, but that it should be in the form of informal talks. Person D described: "As soon as something happens, the feedback should be close at hand, because that's when you can absorb it" (Person D).

Person F highlighted another tool that they also used when working with agility, called After Action Reviews, in which projects and processes are collectively reviewed and reflected on in a group retrospectively, which could be a way to increase resilience through reflection. S/he said: "We also talk a lot about testing and failing, learning from it, and that's where the After Action Review comes in again. Also, that reflection is super important" (Person F). Person I presented another angle of why reflection is useful to boost resilience and explained that knowledge about oneself boosts resilience. Person D and Person B also emphasised working with self-knowledge and self-reflection, from the perspective of doing so through working with self-leadership, to build resilience in employees. Person D said:

"We may not work with the concept [resilience] per se, but we do a lot of work in trying to strengthen self-leadership in employees. We have different tools, a toolbox, for self-leadership to be able to assess yourself, and how you handle different situations, in order to also get a view of what you may need to develop" (Person D).

Similarly, Person I emphasised self-leadership and also brought up some other aspects of an environment that foster employee resilience. S/he said: "I think it's all about self-leadership here and self-knowledge; they go hand in hand. Also, psychological safety, you can't get anywhere if you don't work on that. Openness and creating trust is also important" (Person I).

Other Aspects

Person A explained that building resilience is similar to building your trust in yourself and sense of safety. S/he said:

"It's a lot about building a sort of basic trust in yourself. I think it's very much a prerequisite for being able to deal with these things that just pop up. We work with this in leadership training, there are parts that are about me as a leader; who I am, my team, how I lead a team, and us in the organisation. It's very much about working with yourself and your own sense of safety" (Person A).

Moreover, Person A and Person F argued that resilience in employees could be affected by choosing suitable pedagogical methods. Person A argued that employees could be boosted by using a pedagogical approach that gradually increases in difficulty. S/he said:

"[...] all of our training programmes are based on a 'crawl, walk, run' pedagogical approach, so that you increase the level of difficulty [...] Then you gradually build up the difficulty of the training, and it is also a way of building up skills and confidence to dare to try things you haven't dared to do before. There is a part of that pedagogical approach that I think strengthens you in dealing with complex situations that you haven't faced before" (Person A).

Person F highlighted that the pedagogical approach is important when choosing how to plan training. Person F explained their development in their pedagogical approach:

"We have changed many programmes. Before, we only talked about models and theories; today, we only talk about their own dilemmas. So today, we talk more about things in everyday life, and we have our own cases, and we work a lot in groups and work more with group coaching. We still talk about some theories and models, but the main material is the employees' own, and in that way, you dare to be a bit more self-confident and build resilience because you listen to many other people's experiences and so on" (Person F).

4.2 Challenges

4.2.1 Lack of Time and Priority

Half of the participants [B, I, D, E, G, H] explained that the most significant challenge with competence development for making employees able to handle a VUCA world is the lack of time. Person B said: “I think the biggest challenge with this is time, so I think it is getting employees to take the time to develop their competence” (Person B). Person I agreed and said that the amount of time missing is one of the biggest challenges. Person D and Person E said similarly how the biggest challenge with the work is that employees often do not have the time for competence development since they do not prioritise it. Person D explains:

“Finding the time for competence development is always a critical factor, that [employees] want to see an effect very quickly on the time they spend, and can't always think long-term, which I think is a challenge. But also, when you work with slightly more soft values, like developing your growth mindset, it's not as easy to get time for. It's easier with the things that are mandatory [by law], but with the soft skills it can be easy to think, 'I can do this later'. So I think this is a challenge, to get people to spend time on things that will create value but that you may not see immediately, it may take a long time, but it will have an effect” (Person D).

Similarly, Person E said:

"I've done a bit of [learning initiatives], but you realise that not everyone attends or pays attention to it, some people think they're always too busy to do it, but they also say they want more [competence development]" (Person E).

Person G resonated similarly:

“It is a challenge to know if you are spending money and effort on the right things. We have a program with 10,000 hours of training, but we do not get people to do them. For example, there is training in a growth mindset, but no one wants to go. People do not take the time, so I would say [the biggest challenge is] to get people to go, and to know if that is right” (Person G).

Person G's thoughts were also shared by Person H. Similarly Person C reasoned that a challenge in working with competence development in this changing world is that you do not know if the activities you spend money on are effective tomorrow. Person C said:

“Competence development is something that has to be a bit future-oriented; there is no point in training on something that happened yesterday. [...] It is always difficult to predict the future; just look at historically how many people didn't know what was coming a few years ago. Competence development is difficult in that way, and it is not so easy to define and do it right.”
(Person C).

Person L and Person B gave another perspective when they described how, in contrast to time, the biggest challenge is that the work has limited resources and is not of top prioritisation in companies. Person B explained that the work is not being prioritised because of old habits. S/he said: “For example, I think we would have liked to do other things [in competence development] in the company, but then it is much more challenging because the old behaviours are still there, [of how the work is being done]” (Person B). Person L explained further how limited resources and priority are a challenge. Person L said: “I think this is the top priority, but we have limited resources, and we have this order of priority in the company and do not have resources for everything.” (Person L).

4.2.2 Demands on Employees

Another theme mentioned by two of the participants [F, K] was on demands on employees. However, Person F and Person K had different opinions on the biggest challenges from the rest of the participants. They thought that the biggest challenge concerns today's increasingly complex world and how it puts demands on employees and their development. Person F said: “It is a huge challenge that employees do not want to develop so much, because they may not have had to in the past” (Person F). Person F explained that nowadays, the demands on employees are higher, and the challenge is to make them realise that they have to develop in today's world. S/he mentioned that the challenge is that they must make the whole organisation understand why they need to improve at certain factors.

Person K had a similar understanding that the biggest challenge now is that employees are different and have different needs for their development with different demands on them. S/he said: “But you notice that some have a longer take-off distance than others, it's a challenge, that you have to push

those who are not as self-driven. But then I don't know if it is so much more but that it is the clear challenge we often notice" (Person K).

4.2.3 Different Learning Activities and Learning Preferences

Another theme mentioned by four participants [A, J, F, L] was the challenge that everyone has different preferences in how they learn and hence, in what learning activities should be offered. Person A explained that s/he thinks it is a challenge to get the organisation on board with many different types of learning activities. Person A explained:

"It is like, we stand firm in our belief that mixed learning is the most effective, but there are many people in the organisation who love classroom-based activities, so the challenge is to hold on to that and keep pushing to create many ways of learning instead." (Person A).

In contrast to Person A, who described the need to have a mix of both classroom-based and informal activities, Person J explained a need to have more informal rather than classroom-based activities. However, both Person A and Person J concluded that what is challenging with the work is to offer a mix of learning activities to satisfy all learning preferences. Person F and Person L had similar reasoning. They expressed that a challenge is that the people higher up in the organisation often want the competence development department to hold courses, even though the competence development professionals see that there are other ways in which learning can be created more efficiently. Person J highlighted another challenge regarding what learning activities they offer. S/he said:

"The challenge I really see is that the activities we offer from the company are more traditional and more subject-oriented rather than behaviour-oriented. And they are old-fashioned and boring. I see that as a big challenge. I don't think we have really been able to keep up. [...] the generation entering the labour market has much higher demands and different expectations on different activities offered" (Person J).

4.3 Future Work with Competence Development in an Increasingly VUCA World

4.3.1 Sharing Knowledge in the Organisation

Moreover, five interviewees [A, B, D, F, L] brought up that it is through creating knowledge sharing in the organisation that employees' competencies will develop to meet the requirements of a VUCA world. The participants highlighted different forms of knowledge sharing, from working methods and job-related knowledge sharing to knowledge sharing about different competencies and experiences. Person D phrased it:

"But also, to learn more about collaboration and using each other's competencies and perspectives, creating forums and meeting places and networks for that, where it becomes more self-driven with curiosity and collaboration. [...] You need to create the necessary conditions for employees to meet, I think, in the future. [...] It is through these dialogues that you become more innovative and faster, the formal ones are not always the ones that make you fast and innovative, but it's these networks that I think we need to support." (Person D).

Similarly, Person A reflected on the future and said:

"[...] to make sure that you can learn from each other, that there is time and space for it, and that it is followed up in a good way, rather than having a course catalogue. That's really something we see, which would foster the learning organisation." (Person A).

Person L was also thinking about creating networks for employees to facilitate knowledge sharing:

"Then we look at perhaps creating different communities, digitally, where you can ask questions and find support. But also to have these gatherings of employees, and what I told you about, for instance, the reflective teams; we introduce the method, but then maybe these teams can run themselves later, so they don't need our facilitation. We can curate and show this is what we can do, and then the team can take it from there." (Person L).

S/he highlighted another benefit of creating communities for employees in a VUCA world. Person L said:

"To actually use the capacity in each other, it is actually free, and there is so much wisdom to be gained from others. And also to feel a sense of belonging and that I am not alone, which I think also creates security in a changing world, to use the power that exists in employees." (Person L).

4.3.2 Fast, Accessible, and Easy Learning Material

Moreover, half of the interviewees [A, D, E, F, I, L] stated that the work in competence development in the VUCA world is heading towards quicker, more accessible and easy learning material. Person F described that:

"First of all, I think you have to, not just for us, but I think it applies to everyone, you have to get better at building modules of competence development. Instead of thinking in terms of courses, programmes, and long training cycles, we need to create short modules that are available here and now and can be easily accessed 24/7." (Person F).

Person D explained that generating short and accessible material was a way to create curiosity and a will to learn more:

"[...] because it's about creating their own drive and curiosity, and then I think you need to find the short things, [...] I think these types of tools are important and good to make them easily accessible and short and concise to create curiosity and then make them delve deeper." (Person D).

Similarly, four participants [A, C, F, L] described how the future work in competence development is not heading in the direction of holding more courses. Person C expressed that: "Offering more courses will not solve anything." Instead, half of the interviewees [A, B, E, F, I, L] emphasise everyday learning. Person L and Person E explained that everyday learning could be both more accessible and make people start to think. Person E stated:

"We don't have to do big activities, but it should be more in the everyday work life, for example, short clips that come up once a week, it could be anything, such as [...] this is how you recover in the best way, small, simple means that make you start to think. Because often it's the same things you've heard before, but that needs a little reminder." (Person E).

Other participants also had thoughts on how future learning activities that are faster and more easily accessible could be developed as a substitute for traditional learning. Person L highlighted that "our whole journey is about moving from the traditional learning in traditional classroom training to learning being a podcast or video clips, or a greater variety of learning methods [...] and how we could make that learning accessible" (Person L). Moreover, Person L said:

"Because we can't stop learning due to the ever-changing world we live in, but we have to adapt how we do the learning [...]. We may not be able to go to a training centre for three days, we may not have the money or time, and it might not even have much of an effect. But if, on the other hand, we try to build learning more into the employees' everyday life and make it easily accessible. Maybe provide curated material; for example here are the best podcasts on leadership or the best speeches." (Person L).

Person J expressed the need to find alternative learning ways to accomplish the behavioural changes that are needed in employees in the VUCA world:

"We also need to find the right type of activities to bring about this change in behaviour. We absolutely need to have tools and systems that support this, that are easy to work with, attractive and that evoke some emotions, it should not be too boring, it should be fun and enjoyable, I believe a lot in enjoyment." (Person J).

Person F explained that competence development needs to happen faster and that the methods sometimes need to be innovative. Therefore when discussing the future needs in competence development, s/he adds; "And to be much, much, much faster. It doesn't have to be so neat and packaged, you don't have to spend 300k on a course, you can film with a mobile phone camera and create your own YouTube, it's much better and cheaper and faster." (Person F).

4.3.3 Self-driven Competence Development

All except two participants [D and G] highlighted that the future holds that employees themselves will drive their competence development. Person B, K, J and L all emphasised that they think that it is important for employees to be able to drive their own development and how they in their work encourage employees to do so. Person I stated:

"I believe very much in driving your own development. We have our own learning programme, and we do so many learning activities all the time [...] they are about short training courses, or news and articles, and then there are various activities for self-learning, including podcasts. We also have a toolbox for team development with exercises that anyone in a group can use, [...] so we work a lot with self-learning" (Person I).

Person E and Person F highlight that every employee needs to be responsible for their own learning, and this can be achieved by having learning activities that are open for everyone in the organisation. Similarly, Person H explained that self-driven learning is the way to move forward and that competence development professionals should play a part in facilitating that: "Our plan going forward is to work a lot with self-driven learning. And that for our professional groups, we will work on having as many learning situations available as possible. [...] Setting the right environment for people to grow and the business to grow." (Person H). Similarly, Person A described that self-driven leadership could be boosted by the competence development department by providing accessible learning alternatives: "It has a lot to do with self-leadership: that we have more of a buffet of things that can help the organisation to facilitate in the right way". (Person A). Person C said similarly:

"We put a lot of responsibility on employees, no one else can drive your development, you have to drive it yourself. But of course, we have to provide a good plan so that employees can do it. It's in the nature of things that you have to drive it yourself" (Person C).

4.3.4 Facilitating Learning and Strategic Work with Competence Development

A pattern amongst the participants was the belief that there will be a change in the work with competence development. Person A explained: "We will move away from being the traditional, central education unit to being more present in supporting learning in the organisation." Five participants [A, F, H, J, L] thought that the future work in competence development would be targeted towards facilitating and supporting learning in the organisation instead of the traditional work. Person A stated that:

"Our role becomes more about facilitating learning, creating the prerequisites for learning, training people in the organisation, creating forums, creating technology, ensuring that you can learn from each other, that there is time and space for it, and that it is followed up in a good way, rather than having a course catalogue." (Person A).

Person L described that the competence development department also could work by introducing new concepts and forms of learning that then can move forward to continue to roll on their own, without having to be facilitated. Similarly, Person F expressed that:

"Then [the competence development department] might have a different mission. Perhaps we should work more with strategic skills supply, and think about what we will need in the future, and our role might be more to support and build tools and methods so that learning takes place in the workplace itself. For example, [...] we previously received lots of requests, 'can you come and hold a course in feedback' [...], now we have built a digital toolbox, that anyone in the team can take up, and it takes fifteen minutes to complete an exercise, then we are not needed. I think we will work more in that direction, to build such components, instead of setting up courses and booking course venues and ordering coffee and booking a lecturer, that's a bit outdated."
(Person F).

Person D explained that strategic work with competence development needs to be accepted for being long-term, and not generating quick results. S/he said: "Firstly [...], we have to get the focus away from measuring effect too quickly, we have to focus more on long-term development, even though the world is moving fast, [competence development] has to take time." (Person D).

Person F explained that just as it will be crucial for the employees to update their competencies in a fast-changing world, it will also be crucial for the competence development department to stay updated and to understand the working conditions of the people they are supporting. Likewise, Person K highlighted the importance of adjusting competence development to what is happening in the world. S/he said: "[...] so I think that's the direction we're going in, trying to adapt the training to what's happening in the world." (Person K).

5 Analysis & Discussion

In this section, the findings from Chapter 4 are analysed and discussed in relation to the literature review. The chapter aims to discuss the research questions and fulfil the purpose of the thesis. The chapter is divided into subheadings following Chapter 4. The first research question, *How do organisations develop employees' competence for handling VUCA?* is discussed and analysed in Section 5.1. Subsequently, the second research question, *What are the challenges in developing employees to be able to handle VUCA?*, is discussed and analysed in Section 5.2, followed by the third research question, *How can organisations work in the future with competence development to enable employees to handle a VUCA world?*, which is analysed and discussed in Section 5.3.

5.1 How Do Organisations Develop Employees' Competence for Handling VUCA

5.1.1 Flexibility

An empirical finding is that organisations develop employees' flexibility through working with cross-functionality. This aligns with what is suggested in the literature (Horney, Pasmore & O'Shea, 2010; Volpe et al., 1996; Popova & Shynkarenko, 2016). Moreover, two participants described how an activity used to increase flexibility was having employees share experiences, which is one form of cross-functionality. This aligns with literature stating that working with cross-functionality to promote collaboration and information sharing are key components to address complexity and work in a VUCA world (Jain, 2019; Kok & van den Heuvel, 2019) Likewise, Person A stated that cross-functional activities increase the possibility of getting new insights, which can be connected to how cross-functionality can be used to address complex problems and provide new insights. This aligns with what Stålné (2017) describes about complex problems and how they lack a single and correct solution. The author explains that there is, therefore, a need to be open to interpretation. This can

require interests to be considered against one another, which connects to Person A's reasoning on sharing experiences.

The participants stated that their work with cross-functionality is done by creating cross-functional teams from different parts of the organisation, geographical locations, and levels. This aligns with Kok and van den Heuvel (2019) opinion that having a mixture of those aspects is essential when creating cross-functional groups. The researchers see how this is supported by Millar, Groth and Mahon (2018) and Stålné (2017) on learning across borders where different employees from different parts come together in learning.

Moreover, the participants explained that one type of cross-functional activity is to have cross-functional groups work together in different activities, such as workshops. These activities can be referred to as a formal competence development method, as they are based on planning and organisation (Wallo, Kock & Lundqvist, 2019; Marsick & Watkins, 2001). However, these workshop settings, where employees are mixed in groups to prompt cross-functionality, can also be seen as informal activities, as it can be compared to networking (Park & Choi, 2016; Kock, 2010; Sloan, 2020). The researchers see a connection to the literature, specifically Park and Choi's (2016) statement that informal learning should complement formal learning activities since the findings show that cross-functional activities can be seen as formal but with informal features such as networking within the organisation.

Another finding, brought up by more than half of the participants, is that organisations develop their employees' competence towards flexibility by working with job rotation, where employees change work duties. The participants used job rotation to make employees try different work positions and assignments to increase their flexibility. The researchers see how job rotation can be seen as an informal learning activity since the literature describes that informal learning activities can include on-the-job learning or planned changes to the employee's tasks (Park & Choi, 2016; Kock, 2010; Sloan, 2020). The literature states that job rotation can be used to develop another individual competence factor: agility (Hopp & Van Oyen, 2003; Sumukadas & Sawhney, 2004). However, an interesting aspect is that job rotation was mentioned by Person A, E, and K as a method that was used to develop both flexibility and agility. Thus, the researchers find it interesting that the participants state that job rotation can be used to develop both flexibility and agility, while the literature only brings up job rotation as beneficial to develop agility. However, job rotation is very similar to cross-training activities, which are mentioned to increase flexibility (Horney, Pasmore & O'Shea, 2010),

as they both include trying new tasks. However, cross-training activities focus on learning about the assignments and responsibilities of the team, to better understand the different roles to increase collaboration (Volpe, et al., 1996; Popova & Shynkarenko, 2016), whereas job rotation entails employees switching jobs and trying different tasks to learn to perform new tasks (Hopp & Van Oyen, 2003).

One potential explanation the researchers see as to why job rotation is described as a method to increase flexibility and agility in the empirical data is that the two factors are closely connected. The similarities between the two factors can be confirmed by looking at the terms' definitions; Evans and Bahrami (2020) describe flexibility as being able to adjust dynamically to uncertainty, and agility is defined as “adaptability to different situations, issues, higher complexity and higher pace of change.” (Joiner & Joseph, 2007 in Stålné, 2017, p. 216). The researchers, therefore, see how closely related the individual competence factors are and, thus, can see how job rotation is a method for organisations to develop employees' competence for handling VUCA, as it targets both flexibility and agility.

In addition, two participants had interesting aspects that did not resemble the other participants' answers. They explained that their work with competence development towards flexibility originates from their work with psychological safety and that they foster psychological safety through workshops or seminars. They thought that psychological safety needs to be present in the organisation for competence development activities towards flexibility to be possible. This aligns with Carden, Jones and Passmore's (2023) thoughts on a psychologically safe environment where employees feel trust and are comfortable sharing their vulnerabilities. For example, one participant stated that it is essential to have an environment where employees are safe to take risks and make mistakes and that employees need to feel a foundation of trust. This can also be linked to the thoughts of Horstmeyer (2019) about having a learning culture within the organisation.

The researchers also find it interesting that one participant argues that flexibility cannot be developed through competence development, while other participants clearly describe how it can be developed. The researchers reflect that since it is a complex matter that concerns soft skills and behaviours, it can be more difficult to pinpoint and describe exactly how one works.

5.1.2 Agility and Adaptability

The researchers chose to analyse and discuss the individual competence factors of agility and adaptability together. These were also presented together in Chapter 4 because the empirical data for how to work towards increasing agility and adaptability had significant similarities. Therefore, the researchers find them hard to separate.

Four participants highlighted that they work to develop employees' adaptability by communicating future needs, in which they make employees aware of the future and how this might require them to be adaptable. The participants highlighted the importance of creating an understanding for the employees that they need to be adaptable because, in the future, there might be more or less of some work duties, and some roles might change. This can be connected to job rotation since job rotation is an activity in which employees can try different assignments. This aligns with the literature stating that job rotation benefits adaptability (Hopp & Van Oyen, 2003; Sumukadas & Sawhney, 2004). Person D discussed how employees need to “future-proof themselves” (Person D). This can further be connected to cross-functionality since Person D states that employees can secure themselves in their work by working with various assignments and having broad knowledge. This can be backed up by previous research on cross-training and how it benefits adaptability (Hopp & Van Oyen, 2003; Sumukadas & Sawhney, 2004).

It is interesting how three other participants described their work with adaptability in the same way they had previously explained how they work with competence development for flexibility. The participants once again stated that job rotation is the key to developing adaptability and flexibility. Moreover, this has been described in Section 5.1.1, how three participants stated that they work for agility by job rotation. What can be concluded from this analysis is that the participants bring up job rotation as a method to develop their employees' competencies in several ways, both for agility, adaptability, and flexibility. The researchers find this interesting since they have previously discussed how the definitions and concepts of flexibility and agility are similar and closely related. The empirical findings show that adaptability also is a closely related concept, even though the definition of adaptability differs slightly, as it concerns adjusting to the VUCA world's current circumstances (Popova & Shynkarenko, 2016).

As the literature review and the empirical data show, the individual competence factors of agility and adaptability are developed similarly. On the one hand, this could be a crucial factor in the study, since it could imply that the researchers have asked too similar questions regarding the concepts, not separating them enough and, therefore, confusing the participants about how they work with each

factor individually. On the other hand, the researchers believe the empirical findings of how closely related the factors of flexibility, agility, and adaptability are, which enable organisations to choose one method for competence development that targets them all, in this case, job rotation.

Furthermore, four participants highlighted that their work with competence development for employees to be adaptable was connected with creating a learning culture within the organisation and working with learning from experience. Research states that a learning culture is beneficial for dealing with uncertainty and complexity (Ramamoorthy & Vedpuriswar, 2022). Moreover, it is highlighted in research that “experimenting” and “learning from experience” are two main strategies to create learning within the organisation that has a connection to adaptability (Forsythe, Kuhla, & Rice, 2018, p.8). Similar statements can be found in the empirical data, as Person B explained that they work towards creating adaptable employees through working with learning by doing and letting employees learn from what they have previously experienced. Another interesting aspect is that Person D, who did not describe that they worked with creating a learning culture to enhance employee adaptability, instead described how employees need to secure themselves for the future. This can be connected to cross-functionality, where employees can future-proof themselves as they have the flexibility to work within various duties. Moreover, this finding can be related to the literature, as it is stated in research that a learning culture can be enabled through knowledge sharing and creating exchanges among employees, which also connects to cross-functionality (Ramamoorthy & Vedpuriswar, 2022).

Another empirical finding is that organisations conduct workshops, and seminars and educate about the agile work method, to increase agility. The participants thought these activities could help spread the agile working method throughout the organisation so that it reached other parts of the organisation than just the IT department, where an agile working method is more common. In this sense, this could be connected to cross-functionality, as the participants explained that the workshops were conducted in several parts of the organisation to increase the agile work method overall and better enable collaboration between the units. The researchers see a connection to how cross-functionality is used to educate different groups. Thus, their reflection is that knowledge sharing is used to develop employees' competence for handling VUCA towards agility.

5.1.3 Multiple Perspectives

In the empirical findings, ten out of twelve participants mentioned that working with activities that support reflection, discussions, learning from others, and meeting other employees enhances

employees' abilities to see multiple perspectives. This connects to the literature that the ability to see multiple perspectives is essential in a VUCA world (Garvey Berger & Johnston, 2015). The participants discussed that bringing people together to discuss and share perspectives is one way to create bridging and shared experiences. Similar reasoning is brought up in the literature, as Garvey Berger and Johnston (2015) describe the will to take in others' perspectives can create connections between people and work as a bridge-builder. There is also a connection to how the literature states that people need to be open to others' perspectives which increases the ability to see multiple perspectives (Garvey Berger & Johnston, 2015). Thus, working with activities where employees share experiences and learn from others can be seen as a way to create this openness. Hence, the researchers' reflection is that the ability to see multiple perspectives could be connected to cross-training and cross-functional activities that include collaboration with others (Kok & van den Heuvel, 2019).

Another empirical finding, expressed by two participants, was that working with diversity and inclusion was another way to increase employees' ability to see multiple perspectives. This could be linked to Garvey Berger and Johnston's (2015) statement that openness is related to the ability to take in multiple perspectives. The two participants described having seminars and workshops about diversity and inclusion focusing on seeing multiple perspectives. This connects to Raghuramapatrani and Kosuri (2017), who explains how creating a culture of openness that values the sharing of perspectives and inputs, experimentation, and curiosity is beneficial. Therefore, the researchers reflect that openness towards other employees' views and situations can be developed through activities and actions that include education about diversity and inclusion and what multiple perspectives are and contribute to developing the ability to see multiple perspectives. This aligns with Garvey Berger and Johnston's (2015) thoughts that without seeing others' perspectives, it can be hard to understand them and their situation. Thus, the researchers argue that working with, for example, workshops on inclusion and diversity can be one way to understand colleagues and their situations.

Moreover, the researchers see a connection to Stålné's (2017) explanations on adult development, as the author states that the ability to see multiple perspectives is one part of the adult's intellectual development. Stålné (2017) emphasises that when reaching higher stages of adult development, one can handle and understand more complex situations. Hence, the researchers find a connection between the ability to see multiple perspectives and the ability to handle more complex situations, with several interconnected elements, as described by Bennett and Lemoine (2014a) and Kurtz and Snowden (2003). The researchers see how this can be connected to the empirical findings that

employees can, by sharing experiences and discussions, be provided with different points of view, increasing the ability to see multiple perspectives and thus facing complex problems. The researchers think an interesting aspect of the connection between the ability to see multiple perspectives and Stålné's work on adult development is that it shows that developing qualities that are needed to handle a VUCA world is not only about learning new skills but also about developing the intellectual ability relate to complex situations differently.

5.1.4 Growth Mindset

The results showed that most participants described that a growth mindset could be developed through organising talks and discussions in groups to educate on the matter. This aligns with Dweck's (2006) description that training programs that focus on a growth mindset can benefit the development of a growth mindset. These training programs could be described as formal competence development activities since they entail educating about a growth mindset as a subject (Wallo, Kock & Lundqvist, 2019; Marwick & Watkins, 2001). Dweck (2006) proposes that the training programs should include workshops aimed at a growth mindset, which aligns with the empirical data on how the participants develop their employees. The participants stated that the activities could include employees discussing with each other and talking about making mistakes and learning from them. This aligns with how Garvey Berger and Johnson (2015) emphasise that learning from failures is beneficial in handling VUCA and with Sloan (2020), who states that informal learning activities can be learning from mistakes.

There is a connection that several participants previously described in the result of how they work with cross-functionality. However, they did not explicitly describe how cross-functionality can contribute to increasing a growth mindset. This differs from what the literature on the subject states, as the literature explains how cross-training that includes collaboration, sharing experiences and working across professional boundaries enhances a growth mindset (Dweck, 2006; Dweck, 2016). On the one hand, this is described in the participants' answers on developing their employees towards a growth mindset. The participants describe how they have, for instance, workshops and seminars where different employees meet, share experiences, and discuss. Therefore, even though it is not explicit, there are similarities between the competence development activities proposed in the empirical data and what the literature states. Moreover, as previously described, the participants have discussed how they work with cross-functionality to target other individual competence factors

beneficial in a VUCA world. Even though the participants do not bring up cross-functionality as a way to develop a growth mindset, they mention sharing experiences and discussing, which the researchers see as one way of working with cross-functionality. Therefore, the researchers believe that cross-functionality is one way of working towards developing a growth mindset and competence for handling VUCA.

Furthermore, an empirical finding brought up by five participants was that the work with competence development includes the whole organisation and goes deep into the organisation's core. They described that a growth mindset was not supported through competence development activities in particular but through creating an environment and a culture that fosters that mindset. The reasoning, and the environment that the participants describe, can be linked to the concept of a learning organisation with a learning culture (Forsythe, Kuhla, & Rice, 2018; Horstmeyer, 2019; Garvin, Edmondson & Gino, 2019). The participants explained that it needs to be a learning organisation for a growth mindset to be present and how it is about creating an environment where it is safe to fail and where employees have opportunities to develop. This aligns with Garvin, Edmondson and Gino's (2019) thoughts and the empirical finding that it is not enough to educate about a growth mindset; it has to be a learning organisation with an embedded learning culture. This aligns with Garvin, Edmondson and Gino (2019) on how organisations must support employees' learning and development to deal with change. The researchers also see how this aligns with Ramamoorthy and Vedpuriswar's thoughts (2022) that learning needs to shift from time-based activities to focusing on creating a learning culture within the organisation. The researchers' reflection is that when developing employees' mindsets in a VUCA world, it is much more important, and perhaps only possible, in an environment that fosters and supports development and learning.

Person L was one of the participants who highlighted that a growth mindset needs to be developed in a psychologically safe environment. Similarly, Person L meant that their work with flexibility originates from their work with creating a psychologically safe environment. The researchers see a pattern that Person L emphasises that the individual competence factors that are beneficial in a VUCA world need to be developed on a more fundamental level than only conducting a workshop, it must be permeated in the organisation. This can be linked to creating a learning organisation with a learning culture. The researchers reflect that since a growth mindset is not a skill nor knowledge, but a mindset that is present in all parts of the employee's work, the mindset also needs to be fostered in all parts of the employee's work, and hence, needs to be a part of the culture.

5.1.5 Self-awareness

An empirical finding is that organisations develop employees' competence for handling VUCA concerning self-awareness through working with reflection. Likewise, research from Carden, Jones and Passmore (2023) states how opportunities for reflection increase self-awareness. One thing that was brought up by Person D is that reflection enables employees to get to know themselves better. This aligns with Mustaffa et al.'s (2013) thoughts on how self-awareness leads to an increased ability to assess personal strengths and weaknesses.

The participants explained that they work with reflection in groups where employees can reflect together to increase self-awareness. They also explained that in their work, they let employees reflect and then put the learning to practice in their everyday work activities. This reasoning aligns with Carden, Jones and Passmore's (2023) research that reflection combined with experiential learning significantly impacts the development of self-awareness. Moreover, this relates to Knowles' (1970) theory on adult learning and his fifth assumption that adults want to gain valuable knowledge in everyday life. Thus, the researchers reflect that putting learning into practice, as the participants explained, can help employees see how they can use the learning in their everyday life. However, this also corresponds with Knowles' (1970) third assumption that adults need to understand the material they are learning in relation to prior experience and link new information to previous knowledge. The researchers believe there is a connection between Knowles' third assumption and why experiential learning in combination with reflection is explained to be effective; as experiential learning includes taking in new insights and applying them to previous experience, for example, new ways of working and acting, resulting in the development of self-awareness.

Furthermore, Person A stated that they work with reflection connected to feedback. This aligns with Carden, Jones and Passmore's (2021) research which concludes that feedback in combination with reflection promotes self-awareness. Even though Person A was the only one that brought up feedback towards self-awareness, Person D similarly stated how they use After Action Reviews to let employees reflect on how they acted in situations. This way, the After Action Reviews can be used to incorporate feedback, reflection and thus, develop self-awareness. Moreover, the work with After Action Reviews can be linked to another theme which also includes reflection and was shown to develop self-awareness: Self-awareness Assessment & Tools.

An empirical finding, brought forward by more than half of the participants, was that they work to increase self-awareness through working with self-assessment tools. The participants used

assessment tools, both digital and in-person so that the employees could assess their strengths and weaknesses to increase self-awareness. This aligns with Carden, Jones and Passmore's (2021) research that self-awareness can be developed through evaluation. One participant expressed that their assessment tools were used to create reflection and for employees to understand themselves better. However, other participants did not explicitly say the tools were used to create reflection but for the employees to be able to assess themselves and create an understanding of themselves. However, the researchers think that working with assessment tools is closely related to working with reflection since assessing oneself and having an increased understanding of oneself can lead to reflection, and reflection can lead to an increased understanding of oneself.

Moreover, four participants emphasised that in their work with competence development towards increased self-awareness, they find it essential that the employees are responsible and in charge of their development. This aligns with Raghuramapatruni and Kosuri (2017) and Stålné's (2017) thoughts that one way to create self-awareness is by putting employees in charge of their own development. The participants said that this is done by allowing employees to choose what courses or activities they want to attend. This corresponds well with Knowles' (1970) theory and his second assumption that adults need to be seen and treated by others as capable of their development. This aligns with the empirical findings that the participants work towards creating opportunities for employees to choose their development path.

Another interesting empirical finding is that reflection and assessments can be done in groups. However, the researchers want to highlight that a connection can be found that for group reflection and assessments to be successful, they must be done in a psychologically safe environment. Previous research has reached similar findings, as Carden, Jones, and Passmore (2023) state, that self-awareness should be developed in a psychologically safe environment where people feel trust and are comfortable sharing their vulnerabilities with others so that self-awareness can grow.

Lastly, working with developing employees' self-awareness can also be compared to the vertical development described by Stålné (2017) towards adult development as it involves reaching new stages of development and higher levels of awareness. This relates to what Raghuramapatruni and Kosuri (2017) describe, that focusing on vertical development can create new levels of self-awareness. The researchers' reflection based on this is that developing self-awareness is not about developing a skill or knowledge but about developing new thinking patterns, as Stålné (2017) describes it. As Raghuramapatruni and Kosuri (2017) put it, vertical development is not something

that can be learnt by receiving information but needs to be developed from within. The researchers think this illustrates why working with developing self-awareness needs to evoke the employees' own reflections so that the employee themselves can reach that development.

5.1.6 Resilience

The empirical findings showed that the organisational culture was a central component for building resilience for employees to handle a VUCA world. The culture was mentioned as a prerequisite and needed to be in place for any other initiative to have an effect. The empirical findings showed that psychological safety was desirable in a culture that boosts resilience. For instance, Person J expressed the importance of creating psychological safety in groups to increase resilience. This highlights the power of groups in creating resilient employees. The group's impact on the individual's resilience is also found in the literature. For instance, Seville (2018) describes that when it comes to resilience, the total resilience in the group can be greater than all of the individuals' resilience. However, the researchers have not found literature specifically pointing to building psychological safety for the individual to increase resilience. The researchers argue that an explanation for the group-based findings is that psychological safety exists in relation to the people in the surrounding. This could be connected to the fact that resilience cannot solely be built in one person but is instead connected to creating a learning culture in the whole organisation.

Another empirical finding is that a culture in which mistakes are allowed boosts resilience in employees. According to Person L, creating resilience is about establishing and reinforcing a mindset and a culture. To establish such a culture and create learning in the organisation, the participants emphasise that it can be beneficial if there are role models who lead the way, which is also highlighted in the literature (Dweck, 2014). The researchers draw a connection between the culture described by the participants and what Horstmeyer (2019) describes as a learning culture. The researchers also see a connection between the concepts of resilience and growth mindset since the empirical findings show similarities in the methods used to develop the two individual competence factors, such as creating a learning culture with room for mistakes.

Moreover, the empirical findings showed that working with feedback and reflection are other methods to increase resilience. The empirical data included several ways for creating systems for feedback or reflection. It could be in the form of feedback between manager and employee or through reflection between colleagues. An empirical finding is that feedback is a tool to evoke thinking and reflection

on oneself. However, the empirical data shows that feedback must be continuous and often for it to be effective in a VUCA world. The literature also suggests that feedback is needed to boost resilience (Weick & Sutcliffe, 2001). The empirical findings, and the literature, show that feedback and reflection are closely connected since reflection is a part of feedback, and feedback boosts reflection. It also shows that for feedback to be a tool that creates a reflection in the sense that it is needed in a VUCA world, the feedback needs to happen close to the events and often. That way, the employees, together with the support from colleagues and managers, can reflect on themselves and have the support they need to grow resilience.

An interesting aspect is that even though the empirical data shows that reflection is a method to build resilience, this aspect is not highlighted in the literature as a method of significance. However, reflection is mentioned as a method to increase self-awareness (Carden, Jones & Passmore, 2023). In contrast, creating informal networks for knowledge-sharing is brought up in literature as a method to increase resilience (Weick & Sutcliffe, 2001). This aspect is not found in the empirical data on how to work towards creating resilience. However, it is found in the data on how to develop the ability to see multiple perspectives. The researchers think this indicates that certain methods, such as reflection and networking, are not only effective for developing one individual competence factor that is useful to handle a VUCA world but many. Also, it indicates that there could be different opinions on what methods are effective for what components since many of the individual components have similarities. Therefore, it might not be that a method such as reflection is only good for developing certain aspects. However, it could be useful to develop employees towards a VUCA world in general.

5.2 Challenges

Half of the participants described that the biggest challenge was the lack of time and priority. The results showed a challenge in getting employees to do the different competence development activities provided. This could be connected to Knowles' (1970) theory on adult learning and his first assumption that employees need to understand why they need to learn something before they start learning it. The researchers see a connection that the challenge might occur as the employees do not understand why they should, for instance, attend a learning activity. Therefore, the researchers reflect that there needs to be a will to learn from the employees and that the challenge of lack of priority also could originate from the employees' readiness to learn and hence, be connected to Knowles' (1970)

fourth assumption. For instance, if the employees do not know the purpose of the learning activities, causing them not to be receptive to learning, it could cause them not to prioritise it. A contradictory factor that the researchers find interesting is that the participants have previously emphasised the importance of employees being in charge of their own development. The researchers see a potential problem if the employees should be in charge of their development but still do not attend courses or activities for their development because of lack of time or priority. The researchers think a point can be made that there is no meaning in putting employees in charge of their own development if they are not given time to develop or are told the purpose of their learning.

Another aspect emphasised by two participants is that the work with competence development is not a top priority in the organisation, which can be challenging in combination with the lack of time. One participant, Person B, stated that in their work, they would have liked to do things differently but lacked resources due to the priority in the company. There were similar thoughts from other participants. The empirical findings showed that several participants found the work with competence development of top priority since they see the multiple advantages. This is in line with how Ellström (1992) describe that competence development adds value to the organisation. However, the researchers can see from the results that this picture is not shared all over the organisation, thus creating the challenge to make the organisations prioritise the work. This can be connected to Dweck's (2014) thoughts that it is beneficial if the organisation's top management sees the need to prioritise the learning and development of employees and how top management can be a part of driving the change in the organisation. The participants talked about how it is hard to know if the resources spent will generate an effect since its hard to measure. The researchers see that the fact that it is difficult to measure the effectiveness of the activities increases the challenge of giving the work enough time and making it a priority since it makes it harder to show hard evidence of why the work needs to be prioritised.

Another challenge shown in the results was that two participants described the demands on employees. They thought that the biggest challenge was regarding how today's increasingly complex world creates demands on employees. Participant F described the challenge of making the employees in the organisation understand why they need to improve. This relates to the other participants' discussion and aligns with the lack of time and priority.

The researchers reflect that the work with competence development will be challenging if the organisation's management and employees do not understand why it is needed to keep up with the

increasingly VUCA world. This aligns with Bennett and Lemoine's (2014a) reasoning that the organisation needs to adjust to deal with the VUCA world. Therefore, organisations need this understanding to make internal changes (Bennett & Lemoine, 2014a), which in this case is internal changes with the work with competence development. This reasoning also aligns with Weick and Sutcliffe's (2001) thoughts that awareness needs to be reached in an increasingly complex world of new threats and unpredictable events. Thus, the researchers see that creating this understanding in the organisation could affect both the time provided for the work and the priority of the work.

Lastly, a challenge brought up by four participants was that employees have different preferences in how they learn and what learning activities should be offered in the organisations. This reasoning aligns with Knowles' (1970) theory on adult learning and his thoughts that adults need to be involved in planning their learning since assessing employees' different learning needs is challenging. This reasoning aligns with previous research that states how competence development activities can include a variety of activities, both formal and informal (Wallo, Kock & Lundqvist, 2019; Ellström & Kock, 2008; Ellström, 1992; Park & Choi, 2016; Kock, 2010; Sloan, 2020; Marsick & Watkins, 2001).

Person A described how s/he thought the challenges were connected to getting the organisation on board with different activities. This reasoning relates to previously mentioned thoughts that making the organisation understand why certain things must be implemented is challenging. An interesting finding is that when developing soft skills, mindsets and behaviours, it can be more difficult to grasp what needs to be developed since it is hard to measure. The empirical findings show that it can be more difficult to promote the learning initiatives for soft skills and mindsets since it can be hard for people to understand the value brought with it since it is difficult to show quick results. The participants emphasised that the organisation needs to address different types of activities and learning preferences. This can be connected to how previous research argues for a mix of different activities (Park & Choi, 2016; Kock, 2010) since a mix can contribute to different learning preferences being reached (Knowles, 1970). The participants differed in that Person A saw a need to address the formal activities in their organisation. In contrast, Person J saw a need in their organisation to address the informal ones. The researchers see a connection to the criticism of Knowles' theory from Sandlin (2005), stating that the theory assumes that adults learn in the same way. This can be connected to the participants having differing opinions on how to facilitate learning towards a VUCA world.

The researcher analyses that addressing different activities and learning preferences can be challenging. Moreover, it can be challenging to make the organisation understand why competence development towards a VUCA world is important. On the one hand, the challenge returns to the lack of priority and time, which the researchers think might be something that providing many different activities can contribute to even more. Since the participants describe a challenge of lack of time and priority but also a challenge of providing varied activities, they might contradict as one affects the other. On the other hand, the researchers relate this to how the organisation needs to be aware of the value that this adds (Ellström, 1992), both in the value of the work with competence development towards a VUCA world, as well as the value of addressing different learning preferences (Knowles, 1970), and finally to adjust learning in the organisation to meet the VUCA environment (Bennett & Lemoine, 2014a).

5.3 Future Work with Competence Development in an Increasingly VUCA World

The empirical findings showed how the participants described how organisations could work in the future to make employees better prepared to handle a VUCA world by enabling knowledge sharing. This is also supported in the literature, as Jain (2019) explains that creating networks and information sharing among employees are ways to navigate in a VUCA world. The participants also suggest that knowledge-sharing can be accomplished by creating networks, communities, groups for reflection, and forums to meet. The work that the participants described with creating knowledge sharing could be described as creating opportunities for informal learning, as it includes non-structured learning opportunities through, for example, networking (Marsick & Watkins, 2001; Sloan, 2020). Person L presented one reason why knowledge-sharing is desirable in organisations in the future, as s/he highlighted that their employees have so many competencies and so much potential amongst them that need to be used. The researchers' reflection based on this is that the development needed for employees in a VUCA world might not only be gained by courses and formal learning. Instead, it is more important to establish a culture that enables learning from each other and conditions that will allow the employees to grasp all of the learning opportunities that their jobs already entail, which could be connected with what is described with a learning organisation (Garvin, Edmondson & Gino, 2019). The researchers reflect that it is clear in a VUCA world that organisations have to be learning

organisations with a learning culture for employees to develop their mindset, dare to try, take risks and learn from challenges. Moreover, the participants discussed the connection between enabling knowledge sharing and creating a learning organisation. Similarly, the reasoning that knowledge and skill sharing are enablers for a learning organisation (Forsythe, Kuhla & Rice, 2018) and a learning culture (Ramamoorthy & Vedpuriswar, 2022) can be found in the literature.

The participants presented another reason for believing that creating knowledge sharing is the future: it helps knowledge and information travel fast. For instance, Person D emphasised that knowledge sharing was a way to create fast and innovative learning needed in the future in a VUCA world that can not be created by formal learning. Person D's reasoning can be connected to the literature on the subject. Firstly, literature on what is needed in a VUCA world argues that organisations must be able to match the demands of the environment in which they operate (Horstmeyer, 2019). Secondly, literature on the benefits of a learning organisation argues that learning organisations and their fast knowledge-sharing prepare organisations for unexpected events (Garvin, Edmondson & Gino, 2019). Hence, a connection can be drawn between the empirical findings and the characteristics of a VUCA world presented in the literature, which show why knowledge-sharing and creating a learning organisation is desirable. The researchers reflect that knowledge sharing in organisations is required to match the demands of a constantly changing VUCA world. Learning needs to be fast and constant, and facilitating knowledge-sharing is a fast and effective way to accomplish those informal learning opportunities, such as networking (Marsick & Watkins, 2001).

Literature suggests that informal and formal learning activities should be combined to complement each other (Park & Choi, 2016; Kock, 2010). The participants also described that both parts were needed. However, even though the participants argued that formal learning would be a part of future work for employees to be able to handle a VUCA world, an empirical finding is that the shape of formal learning activities in competence development will change. This aligns with Kock's (2010) thoughts on how competence development needs to adapt to external requirements. The participants indicated that formal learning activities need to be faster, more accessible and easier for the employees to make time for them, for example, short modules and video clips or a podcast. A connection could be drawn between this empirical finding and a previously described challenge with the work. The researchers see that the challenge of a lack of time and priority for the work with competence development could be mitigated by changing the work in the future to be faster and more easily accessible for the employee with small, simple things in their everyday life. The researchers also see that the challenge of lack of priority could be mitigated if competence development initiatives

were shorter and more easily accessible since it, for instance, would spare the organisations the time and money of sending employees on a time-consuming course.

The researchers see a trend in the empirical findings that competence development is moving away from what Person L refers to as ‘traditional learning’, such as courses and training in classrooms, and moving towards faster and more accessible learning activities. For instance, the traditional training and education, which is described by Ellström and Kock (2008) and Draganidis and Mentzas (2006) as the most common and traditional method for competence development, was explicitly brought up by participants as something that will not be the main focus in the future. A reflection from the researchers is that the demands of a VUCA world could explain the changed forms of formal learning activities that the empirical findings suggest. Horstmeyer (2019) states that knowledge and skills become outdated faster in a VUCA world and that employees need to update their skills. Similarly, Person C stated that information is not always relevant a half year later but needs to be more constantly updated. This indicates that the fast-paced environment requires competence development to be constant. Therefore, the researchers find that it is more practical to have short, accessible and easy learning material than to have expensive and long education less frequently.

Moreover, many participants explained that learning needs to be focused on and based on the employee's everyday life. For instance, Person F explained that they had shifted their focus in workshops from educating about models and theories to centring the education and discussions around the employees and their experiences. This is in line with Knowles’ (1970) theory on adult learning and his third assumption, which states that adults want to attach their learning to their experiences and the fourth assumption, which states that adults need to find a purpose to their learning. Also, Knowles’ (1970) fifth assumption states that adults want to feel that what they are learning is useful in their everyday lives. The empirical findings showed a trend that competence development, that is, formal learning activities, is moving towards this direction. Hence, the researchers see a trend in the empirical findings that organisations should work with competence development in the future in a way that corresponds with how adults learn.

Moreover, the empirical findings showed a theme amongst the participants in their belief that competence development will be more self-driven by the employees in the future. The participants explained that the employee needs to play a larger part in their development to make them better prepared to handle a VUCA world. This aligns with Knowles’ (1970) theory on adult learning and his second assumption that adults, in order to learn, need to feel that they own their development and

learning process. The participants also brought up that the organisation can work with communicating future needs, in terms of competencies, skills and mindsets, but that the employee has to take charge of their development. The researchers reflect that as the world becomes more complex and rapidly changing, every employee needs to take a bigger responsibility to make sure they have the competencies needed. However, to do so, the employees need that their organisations communicate future needs and provide opportunities to learn. However, as previously discussed under Section 5.2, it is challenging to drive your development if no time is made for it.

Lastly, an empirical finding was that the participants explained that to provide the competence development needed in a VUCA world, the role of professionals working with competence development must change. The participants described that the work with competence development would have more of a strategic approach, facilitating learning in the organisation, and supporting employees' competence development, instead of only providing courses. Horstmeyer (2019) agrees that professionals working with learning in organisations must adapt their work to keep up with the VUCA world. The researchers see a connection between the previously mentioned findings on what competence development in the future entails and this finding. For instance, suppose that the organisation aims to be a learning organisation that creates knowledge-sharing, provides opportunities for fast and accessible learning material, and promotes self-driven competence development. In this case, the researchers state that the role of professionals in competence development naturally becomes supporting and facilitating for the different parts to take place. Moreover, it is necessary in a VUCA world to be a learning organisation (Garvin, Edmondson & Gino, 2019) and to develop the employees to handle the VUCA environment (Forsythe, Kuhla & Rice, 2018). Therefore, the researchers see that supporting a learning organisation and facilitating competence development towards a VUCA world is strategically essential. Hence, the people working with this should have a more strategic role.

6 Conclusion

In this chapter, the three research questions will be answered to fulfil the purpose of the thesis. The chapter will also provide practical implications, limitations and suggestions for future research.

6.1 How do Organisations Develop Employees' Competence for Handling VUCA

To answer the first research question, the researchers can conclude how organisations work to develop employees' competence for handling VUCA. When developing employees' towards flexibility to handle a VUCA world, different methods that include cross-functionality are used, such as creating cross-functional teams or cross-functional training activities. Another way organisations develop their employees' flexibility is by working with job rotations. They also work with creating a psychologically safe environment to develop their employees' flexibility, as it can be argued that psychological safety needs to be present in the organisation for competence development activities towards flexibility to be possible. Conclusions can also be drawn on how organisations develop employees' competence for handling VUCA concerning agility and adaptability. Organisations develop adaptability by communicating what the future might require and by working with job rotation. They also work through creating a learning culture within the organisation and creating opportunities to learn from experience. Lastly, organisations work with developing agility by working with job rotation and conducting workshops and seminars about the subject, in which they educate about the agile work method.

Furthermore, organisations develop employees' competence for handling VUCA towards multiple perspectives through activities that support and enhance reflection, discussions, learning from others, and meeting other employees. They also work with diversity and inclusion to increase the employees' openness and will to take in multiple perspectives. When developing employees' competence for handling VUCA towards a growth mindset, organisations organise activities such as talks and

discussions in groups to educate them on the matter. Moreover, they work by having workshops and seminars where employees meet, share experiences, and discuss having a growth mindset, their mistakes, and how to learn from failure. Organisations also create an environment and a culture that foster a growth mindset, which can be seen as working towards a learning organisation with a learning culture.

Moreover, organisations develop employees' competence for handling VUCA towards self-awareness by creating opportunities for reflection and combining reflection with feedback. Other methods to develop employees' self-awareness and ability to handle VUCA are working with putting learning to practice in everyday work activities, providing self-awareness assessment and tools, and making the employee in charge of their own development. Lastly, when working towards creating resilience in employees for them to handle a VUCA world, organisations work with developing their organisational culture. They also work to create psychological safety as a part of the culture. Moreover, they work to create a learning culture with room for mistakes and lastly, with feedback and reflection to increase employees' resilience.

The researchers can draw some general conclusions of how organisations develop employees' competence for handling VUCA. In general, organisations combine formal and informal learning activities to develop their employees to handle VUCA. However, a recurring theme throughout the development of all individual competence factors is that there needs to be psychological safety, a learning culture and an organisation that evokes learning and supports employees in their learning. The researchers can conclude that being a learning organisation with a learning culture that embraces psychological safety is much more evident and possibly crucial to be able to develop employees in a VUCA world. This enables employees to develop their mindset, dare to try, take risks and learn from challenges, as it needs to be supported in that environment for the development to take place.

Another general conclusion is that organisations work broadly with making employees work with other people, learn from others and be challenged outside of their usual tasks. The researchers conclude that this could be why job rotation and cross-functionality are so commonly mentioned themes. Educating through workshops and spreading knowledge through lectures are also commonly mentioned tools to increase employees' competence for handling a VUCA world. However, it is clearly stated that only education is not enough. It is important to bring up that; since many competencies needed in a VUCA world are soft skills, behaviours and mindsets, these factors will not be developed only by lecturing; the competence development needs to lead to a behavioural

change and a change of mindset. Hence, education can be used to introduce a new topic and build a foundation but needs to be complemented by follow-up activities that let the employee apply the knowledge in their work and can lead to behavioural changes.

Moreover, in general, it can be concluded that there are significant similarities in the empirical findings of how the different individual competence factors can be developed. Many of the activities organisations work with to develop employees target more than one individual competence factor of importance in a VUCA world. The researchers conclude that this shows how interconnected the different individual competence factors are. For example, it can be concluded that working with job rotations can target agility, adaptability, and flexibility. Another example is how reflection targets self-awareness and resilience, and how sharing experiences, learning from others, and cross-functionality are methods to increase both a growth mindset and self-awareness. The researchers see a crucial factor in their research as whether the questions asked on the individual competence factors were too similar. However, even though the researchers see that this might be the case, they also find it interesting because of how closely related the individual competence factors are, such as flexibility, agility, and adaptability. The finding implies that through working with specific methods of competence development, multiple individual competence factors that are important to handle a VUCA world can be developed.

6.2 What are the Challenges in Developing Employees to be able to Handle VUCA

To conclude, some possible challenges have been identified regarding developing employees towards a VUCA world. One challenge concerns the lack of time and priority for the work. An interesting aspect is that the participants emphasised the importance of employees being in charge of their development. The researchers find these contradictory since it is difficult to drive one's own development if no time is provided. An interesting insight is, therefore, that there is no meaning in putting employees in charge of their development if they are not given the time for their competence development. The findings showed how the challenge in measuring the effects of the activities increases the difficulty of getting enough time and making the work a priority because it makes it more challenging to convince the organisation as to why the work needs to be prioritised. Another aspect is that two participants described how they thought the most significant challenge is in relation

to today's increasingly complex world and how it puts a lot of demands on employees. Therefore, organisations need to understand the importance of the work so that internal changes in organisations can be made. The researchers conclude that creating this understanding could be one way to mitigate both the challenge of lack of time and the priority of the work if the entire organisation shares this understanding.

Lastly, there is the challenge of meeting different learning needs and preferences. The reasoning that can be concluded is that it is challenging to address different activities and learning preferences and, therefore, to make the organisation understand why these can develop certain important competence factors. This challenge returns to the lack of priority and time. The researchers see that the possibility to provide multiple activities will be affected by what priority the work has and what time and resources that are spent on competence development. Therefore, the value of providing competence development activities that are adjusted to different learning preferences needs to be seen by the organisations and how the learning activities positively affect their work towards the VUCA environment.

6.3 Future Work with Competence Development in an Increasingly VUCA World

The researchers conclude how organisations can work with competence development in the future to enable employees to handle a VUCA world. To fulfil the needs of the fast-changing VUCA world, competence development needs to happen often and consistently and be integrated into everyday life. Moreover, the competence development can include a combination of informal and formal learning activities. The formal learning activities should be short, easy and accessible to be suitable in a VUCA world. This can also help mitigate the lack of priority in terms of time and money in the organisation. The formal learning activities, such as workshops and education, should be centred around the employees and their jobs and experiences.

However, informal learning activities need to complement formal learning activities. In a VUCA world, learning should happen daily and on the job. Therefore, it is important to have a culture in the organisation that fosters learning so that employees get the opportunity to learn in their everyday life. One way of incorporating everyday learning is by enhancing knowledge sharing in organisations. The

main focus is that creating a learning organisation and fostering a learning culture should be a priority, continuously updating the learning towards the VUCA world. Furthermore, the researchers conclude that the VUCA world demands more self-driven learning. Therefore, organisations can work in the future by providing more opportunities for self-driven development. For self-driven development to be effective, future needs in terms of competencies, skills, and mindsets should be communicated, and opportunities to learn should be provided.

Moreover, since the forms of competence development change, the professionals working with competence development need to develop alongside and take a more strategic and facilitating role. They should focus on facilitating learning by creating opportunities for informal learning and supporting the organisation in providing easily accessible learning material. Hence, they can make it possible for competence development to be more self-driven and to be a part of creating a learning organisation with a learning culture.

6.4 Practical Implications

The findings in the study can imply several practical implications that can help professionals responsible for competence development in their work to enable employees to handle a VUCA world. The findings can also provide a deeper understanding to professionals working with competence development on how they can work in the future.

The findings showed several different activities organisations use when working with competence development of employees, in order for them to handle VUCA. The findings can contribute to helping professionals get an overview of how they can conduct their work and what important aspects need to be considered. For example, findings can be letting employees take charge of their development, having both informal and formal learning activities to cater to different learning preferences, and developing a learning organisation with a learning culture. As a result, the findings can help professionals decide how and what competence development activities they should focus on to make employees better equipped for handling a VUCA world.

Moreover, the findings can contribute to a deeper understanding of how they can work in the future to enable employees to handle a VUCA world. The findings can give professionals working with competence development a better understanding of what is required of competence development

initiatives in a VUCA environment. Furthermore, the findings can provide a deeper understanding of what role professionals working with competence development should take to prepare the employees for the VUCA environment and how the work with competence development needs to change.

Lastly, the research provides several practical implications for the participants in the study. The study allows them to reflect on their own situation, and their work and gain insights into how they can work in the future.

6.5 Limitations

The study's first research question has been investigated based on a set number of important individual competence factors when handling a VUCA world. One potential limitation is that the selection of these factors is based on the researchers' search for previous research. The researchers, therefore, see a limitation in that this is their search and perhaps not what other researchers would have selected.

Another limitation is that the participants in the study had different knowledge about the subject; some had a larger awareness of what VUCA entails, while others had less. Hence, not all of the participants could explicitly answer how they conducted their work towards all of the individual competence factors brought up in the interviews. However, the researchers are aware that this topic can be perceived as complex. However, having a broad sample of participants from different organisations, industries, and branches provided valuable insights into the study and can ensure that the data collected can be transferable to other environments in a similar context.

The findings showed how organisations sometimes worked with one method towards several different factors. This made it more difficult for the researchers to answer the first research question, as it was sometimes challenging to distinguish the individual competence factors from each other in the analysis and discussion. However, this is interesting as it shows how working with one method, such as cross-functional activities, can target many individual competence factors. The researchers see this as a potential limitation of the study. It can be discussed whether the researchers should have followed the deductive approach, where they asked questions targeting certain individual competence factors or if they should have followed an inductive approach and asked open questions on how the organisation develops employees' competence for handling VUCA. However, the deductive

approach ensured that the participants could give more elaborate answers to the researcher's questions, even though the answers to the different questions sometimes overlapped. This resulted in empirical findings that the researchers had not originally anticipated, that organisations could work in one way to target several individual competence factors of importance to handle a VUCA world.

6.6 Future Research

The researchers would like to provide suggestions for future research. The researchers suggest conducting a similar study with a larger scope and, for example, with organisations outside of Sweden. It would also be interesting to investigate more in-depth what individual competence factors are most important in a VUCA world.

Moreover, it would be interesting to include the employees' perceptions of how they think they can be developed towards the different factors. The researchers suggest a similar research approach, but comparing employees' perceptions of how they think they can be developed for handling a VUCA, with what professionals working with competence development think. One last suggestion is to make a similar research approach to the subject and compare different industries and branches to see if there are differences depending on industry or branch. The researchers believe this research subject will only grow as the world becomes more volatile, uncertain, complex and ambiguous.

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Appendix A

Contact Message/Email

Hi X!

We are two students from Lund University School of Economics and Management, studying the Master's program in Management. We are currently writing our master's thesis.

We are seeking people who work as a manager or are responsible for competence development (people development, learning and development) and who want to participate in our study!

The purpose of our study is to help managers working with competence development, by investigating how they work, to enable employees to manage in our increasingly complex VUCA world and to create a deeper understanding of how they can work in the future.

The interviews will take about 30-40 minutes and can be conducted either via Microsoft Teams or on-site. All material will be treated confidentially and anonymised.

Would you be interested in participating in our study?

Feel free to contact us if you want to know more or have any questions!

Best regards,

Carolina Axelsson och Sofia Fröjelin

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Appendix B

Information Email

Hi X!

Our interview is coming up next week. Attached is information about the interview and the questions we will cover during the interview, which you are welcome to read.

Thank you again for participating!

See you next week!

Best regards,

Carolina Axelsson och Sofia Fröjelin

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Appendix C

Interview guide

Inform the informant about who we are and what the purpose of the paper is.

Information about the processing of material:

- All information will be anonymised, which means that detailed information of a personal nature, such as names and companies, will be omitted.
- All information will be treated confidentially and follow ethical requirements.
- The information will be used for the purpose of the thesis and will then be deleted.
- Participation is voluntary, and you can choose not to answer questions.
- Before we start the interview, we will ask the informant if it is okay for us to record the audio and if we can use quotes from the interview. This is to be able to make an in-depth analysis and to avoid misquotation.
- Do you have any questions before we start the interview?

We have structured the interview according to three themes. These are:

- **Current work with competence development towards a complex VUCA world**
- **Challenges**
- **The future**

Background information

1. Could you tell us briefly about your role in relation to how you work with responsibility for competence development?

The researchers explain the concept of VUCA.

Current work on competence development in a VUCA world

2. Do you work, and if so, how do you work, with competence development to enable employees to handle an increasingly VUCA world?
3. How do you work with competence development to increase employee flexibility?
 - *Why, in what way?*
4. How do you work with competence development to help employees become agile?
 - *Why, in what way?*
5. How do you work with competence development to increase your employees' ability to see multiple perspectives?
 - *Why, in what way?*

6. How do you work with competence development to enable employees to handle challenging situations (resilience)?
 - *Why, in what way?*
7. How do you work with competence development to support the promotion of a growth mindset?
 - *Why, in what way?*
8. How do you work with competence development to make employees adaptable?
 - *Why, in what way?*
9. How do you work with competence development in order for employees to increase their self-awareness in their work?
 - *Why, in what way?*

Challenges

10. Have you previously encountered any challenges with this work?
11. What possible challenges do you see with this work in the future?
 - *Why, in what way?*

The future

12. How can you work in the future to make your employees better at working in this VUCA world?
13. What plans do you have for the future, (regarding your work with competence development to make employees better at handling VUCA)?
 - *What are your thoughts on how the work with competence development towards VUCA will develop?*
 - *Why?*

Conclusion

14. Is there anything else you would like to say on the topic of competence development and VUCA?
 - *Is there anything you would like to add?*
15. How do you think your work on developing employees' abilities to deal with a VUCA world relates to other companies' work?
16. Would it be okay if we contact you by email if there is anything we need to add?

Appendix D

Explanations of terms used in the interview

VUCA: VUCA is an acronym for Volatile, Uncertain, Complex and Ambiguous. The term VUCA originated in the US military and has since become a way of expressing the increasing complexity of the world (Forsythe, Kuhla & Rice, 2018).

Competence: Competence is about an individual's potential ability to act in relation to a particular task, context or situation (Ellström, 1992).

Competence development: Competence development is seen as various measures that can be taken to influence the competence of people or groups within organisations (Ellström, 1992).

Growth mindset: A growth mindset is defined as the assumption that a person's skills and abilities can be developed through work, experimentation and commitment. A growth mindset also involves an ability to learn from failures and see them as opportunities for development (Dweck, 2006).

Resilience: Resilience is the ability to bounce back from failures and challenges, and to deal with surprises in the moment (Weick & Sutcliffe, 2001, p. 107).

Agile: Agility can be defined as “adaptability to different situations, problems, higher complexity and higher rates of change [...]” (Joiner & Joseph, 2007 in Stålné, 2017 p. 216). Moreover, it is described as the ability to move and accelerate quickly (Evans & Bahrami, 2020).

Flexibility: Flexibility enables people to more quickly recognize and adapt to the demands of a situation (Evans & Bahrami, 2020).

Self-awareness: Self-awareness concerns how you understand your strengths and weaknesses and how aware you are of how others see you (Carden, Jones & Passmore, 2021; Raghuramapatruni & Kosuri, 2017).

Adaptability: Adaptability concerns the ability to adapt to current circumstances (Popova & Shynkarenko, 2016).