



# **The Royal Norwegian Naval Academy**

## **Larp in leadership development**

Can the use of live action role plays (larps) be beneficial in the leadership training at the Royal Norwegian Naval Academy?

by

**Maria Kolseth Jensen**

Bachelor thesis

Military Studies - Operational Branch

June 2020

Approved for publishing

## **Abstract**

### **Purpose**

Military personnel are required to perform in times of crises and war. These situations are characterized by complexity and uncertainty, and require teams with members capable of showing role flexibility. Role flexibility can be divided into 1) having a wide behavioural spectrum and 2) reading social situations correctly and choosing the behaviour that best serves solving the mission at hand. Social pressure and the fear of failing hold team members back from going outside their comfort zones, thus hindering them in developing their ability to show role flexibility. However, live action role plays (larps) can remove these barriers and provide a suitable training arena. This bachelor thesis aims to investigate if the use of larps can be beneficial in the leadership training at the Royal Norwegian Naval Academy.

### **Research design**

Using a quasi-experiment with a pre-test post-test comparison-group design, two classes of naval cadets (N=116) were studied. The class of 19-22 took part in a training program consisting of five larp sessions. The class of 18-21 was used as a non-equivalent control group. Empirical data was collected through observation, a questionnaire and SPGR-tests. Using a quantitative approach, the development in the cadets' ability to show role flexibility was examined.

### **Findings**

The class of 19-22 as a whole had a positive development in their ability to show role flexibility in the time period in which the larps sessions took place. This development was not statistically significant compared to the development of the class of 18-21. However, this does not rule out the possibility that the larp sessions could have had a positive effect on some of the cadets.

40,6 percent of the cadets reported that their spectrum of behaviours had been broadened as a result of their participation in the larp sessions, and 65,6 percent that their ability to observe

other cadets had improved. 78,1 percent of the cadets would probably or definitely recommend the larp sessions to another cadet if asked. The data showed a statistically significantly greater development in the cadets who were positively inclined towards the larp sessions and who played challenging characters as opposed to the negatively inclined cadets who played unchallenging characters. The cadets who seemingly benefitted the most from the larp sessions were positively inclined towards the training and had low scores in role flexibility before the sessions. This could indicate that larp sessions in this form mostly benefit cadets with a narrow spectrum of behaviours with regard to training role flexibility.

### **Research limitations**

Due to the scope of the thesis, it was not possible to study the long term effects of the larp sessions, which might differ from the short term effects. The thesis primarily examines the effects the larp sessions had on the cadets' ability to show role flexibility and does not study the other effects the larp sessions might have had.

### **Conclusion**

It was concluded that: yes, the use of larp can be beneficial in the leadership training at the RNNA. The larp sessions appear to have had the greatest effect on the cadets who were positively inclined towards the larp sessions and who played characters that they found challenging. It was recommended to keep the larp sessions in the training program at the RNNA with some adjustments, and to do further research on how the larp sessions can be optimized.

## Preface

This bachelor's thesis was written during spring 2020, as the final part of my education in Military Studies at the Royal Norwegian Naval Academy in Bergen, Norway.

Several people have contributed to my work with this thesis. I wish to give special thanks to my supervisor, Roar Espevik, for his invaluable help, guidance and engagement. Furthermore, I would like to express my appreciation to teacher Anne Linda Løhre for proofreading the thesis, her excellent advice and her belief in the project and in me. I would like to thank the class of 19-22 “*Shetlands-Larsen*” and 18-21 “*Den ukjente krigsseileren*” at the Royal Norwegian Naval Academy (RNNA) who took part in my research; teacher Erik Aarebrot and his psychology class at Metis High School for playtesting two of the live action role playing games (larps); the participants at the Larp Festival Spillerom 2020 who play-tested one of the larps a second time; and finally the larp community for their support and feedback both on larp design and theory.



Figure 1: Cadets on board the tall ship Statsraad Lehmkühl participating in a larp session.

## Table of contents

|   |           |
|---|-----------|
| <b>Abstract</b> .....                     | <b>ii</b> |
| <b>Preface</b> .....                      | <b>iv</b> |
| <b>Table of contents</b> .....            | <b>v</b>  |
| <b>Figures, tables and diagrams</b> ..... | <b>vi</b> |
| <b>1. Introduction</b> .....              | <b>1</b>  |
| 1.1 Structure.....                        | 3         |
| 1.2 Limitations.....                      | 3         |
| 1.3 Definitions.....                      | 3         |
| <b>2. Theory</b> .....                    | <b>5</b>  |
| 2.1 Teamwork in complex situations.....   | 5         |
| 2.2 The Spin Theory.....                  | 6         |
| 2.3 How we learn.....                     | 8         |
| 2.4 Learning and motivation.....          | 10        |
| 2.5 Learning and larp.....                | 12        |
| <b>3. Research design</b> .....           | <b>15</b> |
| 3.1 Method.....                           | 15        |
| 3.2 Research process.....                 | 16        |
| 3.3 The larp sessions.....                | 19        |
| 3.4 Data acquisition.....                 | 21        |
| 3.5 New variables.....                    | 25        |
| <b>4. Results</b> .....                   | <b>27</b> |
| 4.1 Level 1.....                          | 26        |
| 4.2 Level 2.....                          | 32        |
| 4.3 Level 3.....                          | 41        |
| 4.4 Level 4.....                          | 49        |
| <b>5. Discussion</b> .....                | <b>51</b> |
| <b>6. Conclusion</b> .....                | <b>59</b> |
| <b>Reference list</b> .....               | <b>60</b> |
| <b>Appendices</b> .....                   | <b>63</b> |
| Appendix A.....                           | 64        |
| Appendix B.....                           | 65        |
| Appendix C.....                           | 70        |

---

## Figures

Figure 1: Cadets on board the tall ship Statsraad Lehmkuhl participating in a larp session.

Figure 2: The balance of the Basic Group Functions in the SPGR model

Figure 3: Group dynamics and the four main functions

Figure 4: Model for experience based learning

Figure 5: Single and double looped learning

Figure 6: Model for motivation in the classroom

Figure 7: The three learning dimensions and student development through larp

Figure 8: The five larp sessions

Figure 9: One team playing characters during a larp.

Figure 10: The course of one larp session

## Tables

Table 1: Timeline showing the research process

Table 2: The four levels of the New World Kirkpatrick Model

Table 3: Scores showing development of the ability to observe other cadets

Table 4: Scores showing development of the behavioural spectrum

Table 5: Z-scores in the different groups

Table 6: Multiple comparisons of SPGR z-value before the larp sessions.

Table 7: Multiple comparisons of SPGR z-value after the larp sessions.

## Diagrams

Diagram 1: Scree plot showing the eigenvalue of the different factors from an exploratory factor analysis

Diagram 2: Question 1, was the sessions a rewarding way to learn? Why or why not?

Diagram 3: Question 2, the sessions held my interest (this much of the time).

Diagram 4: Question 3, what I learned during the sessions will help me as leader in the future.

Diagram 5: Question 4, I would recommend the sessions to another cadet if asked.

Diagram 6: Question 5, my ability to observe the other cadets aboard has improved as a consequence of my participation in the sessions.

Diagram 7: population pyramid from the Mann Whitney U test

Diagram 8: Question 6, my spectrum of behaviours has been broadened as a consequence of my participation in the sessions.

Diagram 9: Question 7, the roles I played challenged me in areas I wished to develop

Diagram 10: Independent-Samples Kruskal-Wallis Test

Diagram 11: Question 8, I think that it is worth while using what I've learned during the sessions in my leadership.

Diagram 12: Development in z-score comparing results from before and after the larp sessions

Diagram 13: Means of z-scores before and after larp sessions

Diagram 14: Question 9, I think I will see a positive effect if I consistently use what I learned during the sessions.

## 1. Introduction

Military personnel are required to perform in times of crises and war. These situations are characterized by complexity and uncertainty (Boe, 2016). They are too vast for one person to grasp alone, and so teams become necessary. In order for a team to function well during such extremes, the team's team work needs to be robust (Sjøvold, 2006). This means having members who are capable of being role flexible; members who 1) have a wide range of behaviours they are comfortable using, and 2) swiftly can read any situation and choose the most appropriate behaviour to support the completion of the mission. The ability to be role flexible is in other words a skill that is required of every military officer.

Military forces have existed throughout the ages, but the question of how to educate the best officers and leaders is never outdated. As a third year cadet at the Royal Norwegian Naval Academy (RNNA), I have personally experienced this academy's approach to solving this challenge. The RNNA focuses its efforts on leadership training in the first year of the education, where cadets from all branches are mixed and put together in teams of 7-9 people. The practical part of the education includes several field exercises and simulator sessions in addition to a 10 week sail across the Atlantic with the tall ship Statsraad Lehmkuhl (SL). As the chosen training arenas are different from the specific jobs the cadets will do as officers, the focus is on teamwork – how to function within a team and make the team function, as opposed to taskwork – the individual undertaking of tasks (Eriksen, 2017). This is all done within the framework of the formal leadership philosophy in the Norwegian military, Mission Based Leadership (Forsvaret, 2012).

Educating officers who are capable of being role flexible, however, is no given. The natural tendency for members of newly formed groups is to fall back on roles they are familiar and comfortable with and staying there (Sjøvold, 2006). Social pressure, the need to fit in, and the fear of failing stops the team members from stepping outside their comfort zones and practicing new behaviours. When this happens, the team members fail to develop their role flexibility, and consequently the team's success will usually depend on one or a few strong team members who keep the team together (Sjøvold, 2006). In my experience as a third year cadet, this is usually what happens in the teams at the RNNA. There are too few opportunities to practise role flexibility, and as a result, the cadets do not develop to their full potential during training.



A possible solution to this challenge is the use of live action role plays – larps. In a larp, the participants play out a fictitious character that is not themselves, that might inhabit traits that the participants want to practise or explore (Sandvik et al., 2006). By giving the cadets the alibi of a character within a fictitious context, the social pressures connected to the cadets' personas are removed. The responsibility for any failures within the larp falls on the character. This offers the cadets a safe arena to practise in and adds a framework for direct feedback without personal feelings getting in the way of honesty. When the social pressures that normally hold the cadets back are removed through larp, they will dare to challenge themselves in roles with which they are uncomfortable. This in turn, will lead them to develop their role flexibility and make them robust members of their teams.

With this in mind, I created five larp sessions for the cadets in the first year of their education. This thesis explores the empirical results of the sessions, and seeks to answer the research questions “*Can the use of live action role plays (larps) be beneficial in the leadership training at the RNNA?*”. My hypotheses were the following:

1. The cadets will become more role flexible after completing five larp sessions
2. The cadets who are positively inclined towards the larp sessions and choose to play characters that challenge them will have the greatest development in their spectrum of behaviours
3. The cadets who are positively inclined towards the larp sessions will have the greatest development in their ability to observe situations and select an appropriate behaviour

## 1.1 Structure

The thesis is divided into six parts: introduction, theory, research design, results and analysis, discussion and finally the conclusion. The theory presents the theoretical basis on which the thesis is built. Next, the research design covers my method, the research process and the data acquisition methods. In the results and analysis, the findings are presented using the four levels of the Kirkpatrick Model (Kirkpatrick & Kirkpatrick, 2016). Thereafter, the discussion seeks to answer the research question and explore the hypotheses in light of the context at the RNNA. Finally, in the conclusion I summarise my findings.

## 1.2 Limitations

Due to the scope of the thesis, some limitations are necessary. There are many aspects to leadership training, but this thesis focuses primarily on role flexibility. The use of larps might be beneficial in more subjects than leadership training, but these are not explored in this thesis. Finally, this thesis does not look at the long-term effects of larp, which might differ from the short-term effects.

## 1.3 Definitions

**Role flexibility** – in this context, it refers to 1) the ability to read a situation and choose the appropriate behaviour and 2) the range of behaviours one can comfortably choose from.

(Sjøvold, 2007, p. 623)

**Larp** – “A larp, or a live action role-playing game, is similar to a theatrical play performed with no audience and no script” (Stark, 2012).

“Larp is originally an acronym for Live Action Role Playing, but today it's used as a name in itself. It refers to a type of interactive game or storytelling in which the players assume a role and act as a character within the set fiction. It can be described as theatre without an audience or script” (Nordic Larp Wiki, 2019).

**Edu-larp** – “Edu-larp can be defined as any kind of pedagogical method that uses live

action role-playing as a student activity directly connected to the pedagogical purpose of the teaching or therapy” (Hyltoft, 2010). Though the larps in this project can be defined as edu-larps, they will just be referred to as larps for simplicity.

**Cadet** – in this context a student at the Royal Norwegian Naval Academy, equivalent to a midshipman in the US.

**Participants** – In this context, the people taking actively part in the sessions from beginning to end (the cadets) who are not the facilitator.

**Character** – “A fictitious person that exists in a game world. A role in a drama or a playable entity” (Nordic Larp Wiki, 2014). In this context, the people the participants portrayed in the larp.

**Player** – In this context, a person who plays a character within a larp. In a larp, there is a division between the player (the person playing a character) and the character (the person being portrayed).

**Role** – “In an interaction, we have certain expectations regarding how others should behave. Such expectations to behaviour is called a role when they fulfil certain basic functions in a group”, translated from Norwegian (Sjøvold, 2006).

**Larp session** – in this context, this refers to the conduction of a workshop, larp and debrief with a team, lasting 70 minutes in total.

## 2. Theory

In order to support the claims in the introduction, the theory will cover why teamwork is central in complex situations. It will introduce the spin theory, which promotes the importance of role flexibility and explains how a team can develop. The theory will also discuss theories about how we learn in general, and how motivation influences learning. Finally, it will address why larp works for educational purposes.

### 2.1 Teamwork in complex situations

Times of crises and war are by their very nature chaotic and unpredictable. Clausewitz brings attention to the unpredictable friction any military operation contains; Boyd teaches us how entropy inescapably will rein and how we must interact in it while isolating the enemy; Sun Tsu stresses the importance of using deceit, cheng-chi and the environment to our advantage (Clausewitz, 2010; Richards, 2004). This also applies to modern military operational environments, most of which are characterized by volatility, uncertainty, complexity and ambiguity (Boe, 2016). It is generally agreed that the traditional order based system has outlived its usefulness in 4<sup>th</sup> generation warfare. The complex nature of this kind of warfare requires initiative and drive at all levels throughout the organization; it requires robust and mature teams capable of adapting to a changing environment (Nissestad, 2007).

When a situation becomes too complex for one person to handle alone, a team becomes necessary and suitable. A type of team with many parallels to the military domain and which also encounters complex situations, are crisis- and emergency preparedness leadership groups. It is imperative that these teams work together effectively, or it can have dire consequences. Three examples that illustrates this are USS *Vincennes*, an American warship that erroneously shot down an Iranian passenger aircraft, and the shipwrecks of the two vessels *Scandinavian Star* and *Sleipner*. The author of the book *Crisis- and Emergency Management: Team-Training*, Jonas Eriksen, points out that when such teams train, a lack of errors is not enough to ensure success in a real situation, if this lack of errors is not the result of a well-functioning team. A team might do well in simulation, but this could be the result of one strong leader who leads the others. When this leader makes a mistake, the team will most likely not be able to correct it, if they are uncomfortable with speaking up (Eriksen, 2017). This will be further illustrated

---

in the part about the spin theory. This dependency on teamwork stresses the importance of practicing it systematically and can easily be translated to a military setting.

## **2.2 The Spin theory**

The spin theory can be described as a synthesis of different perspectives and is operationalized through the systematizing person-group relations (SPGR) method. It perceives group dynamics as a balance phenomenon, and states that there is no one group dynamic that is ideal; the context determines what dynamic is useful in any given situation. In order for a team to reach its full potential, four functions - nurture, control, opposition and dependence – must all be in harmony(Sjøvold, 2014). This could be solved by each member filling the function they are most comfortable with; a normal occurrence in newly formed teams, though this is not sustainable in the long run(Sjøvold, 2014). A better solution is having all team members develop their role flexibility, enabling swift role changes and thus ultimately empowering the group to solve complex tasks in unpredictable surroundings. Sjøvold writes that:

Good leaders evaluate what behaviour or action is most appropriate in a given situation and in the long term and then make a deliberate choice. To cope successfully with a changing context, new tasks, or internal issues, group members need to be able to shift from behaviours reinforcing efficient production (control functions) to nurture functions and vice versa (Sjøvold, 2007, p. 623).

This development, however, requires the team members to push their boundaries and go outside their comfort zone and use behaviours they are initially uncomfortable with in relation to their colleagues and surroundings (Sjøvold, 2007). Developing the team means increasing the team members ability to show a broader spectrum of behaviours(Sjøvold, 2014). In order to master each function, it is necessary to be exposed to the behaviour that supports the function in addition to practise(Sjøvold, 2006).

---

## The Balance of the Basic Group Functions in the Systematizing Person-Group Relations Model

---

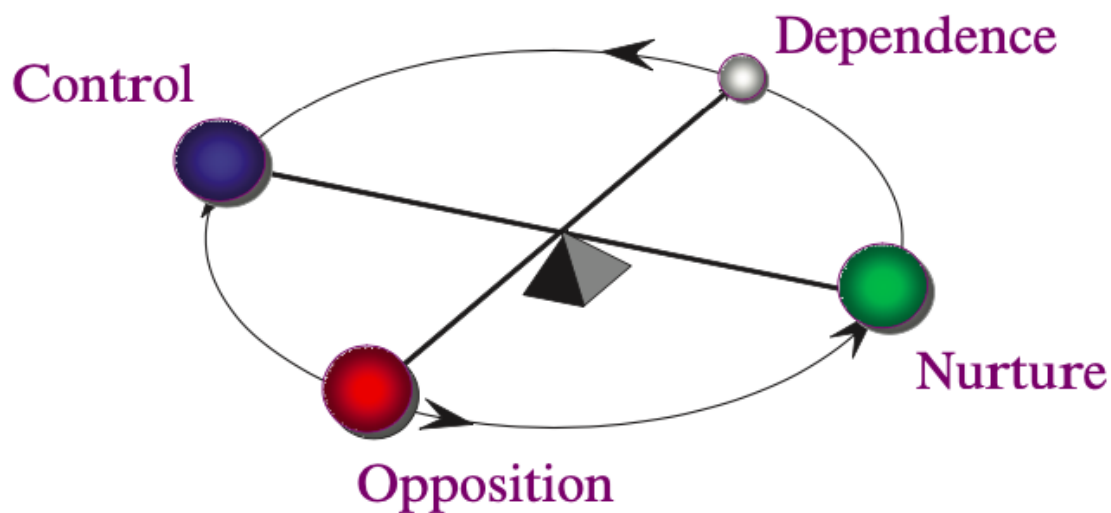


Figure 2: The Balance of the Basic Group Functions in the Systematizing Person-Group Relations Model

As mentioned above, there is no single group dynamic that fits all situations; an effective team has a dynamic that matches the tasks at hand in the given context. Endre Sjøvold writes about four levels of group dynamics; reservation, team spirit, production and innovation (Sjøvold, 2007). More levels become available to the team as the members each master the different behaviours and trust within the team is established. A mature team can rapidly switch between levels, choosing the one that best fits the task and surroundings. When team members can fluently switch between different functions and behaviours, it indicates that the team is well balanced (Sjøvold, 2014). However, should the team prove unable to develop its role flexibility, the team members will typically take responsibility for a function each, and stay with this function. This might work with relatively simple tasks, but when the complexity increases, this team dynamic leads to poor balance. In turn, this makes the team vulnerable to external threats (Sjøvold, 2014).

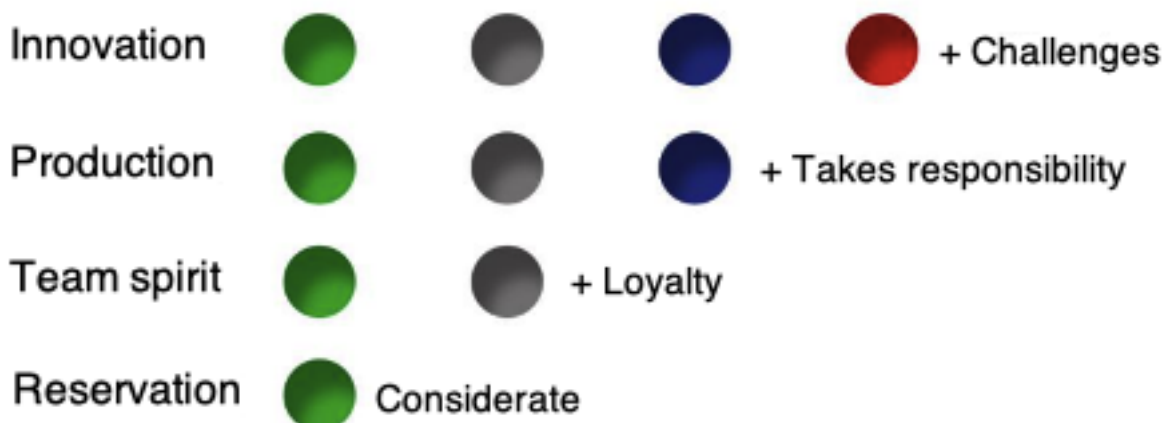


Figure 3: Different group dynamics become available to the team as more members use behaviours from the four main functions (Sjøvold, 2014, p. 73).

## 2.3 How we learn

There are many theories on how we learn, but one of the most prevailing later years is the cognitive constructivism perspective on experiential learning (Lindholm et al., 2006). Kay Peterson and David Kolb argue that experience is our only true teacher, and that without new experiences, there can be no real learning (Peterson & Kolb, 2017). Kolb introduces a four step model on the learning process, *experience, reflect, think* and *act* (Sverige & Försvarsmakten, 2000). This cycle can repeat itself many times in the course of any interaction, but also when we experience new things in our lives (Peterson & Kolb, 2017). Kolb would typically give an introduction similar to this, when working with new groups:

“We are going to share *experiences* together, *reflect* and share their meaning for us and together *think* about the implications for our group. From this understanding we can *act* to create the kind of group we want” (Kolb, 2015, p. XXII).

The Swedish Försvarsmakten’s basic view on learning is in support of this; based on previous experiences, we cognitively process new information and incidents (Lindholm et al., 2006).

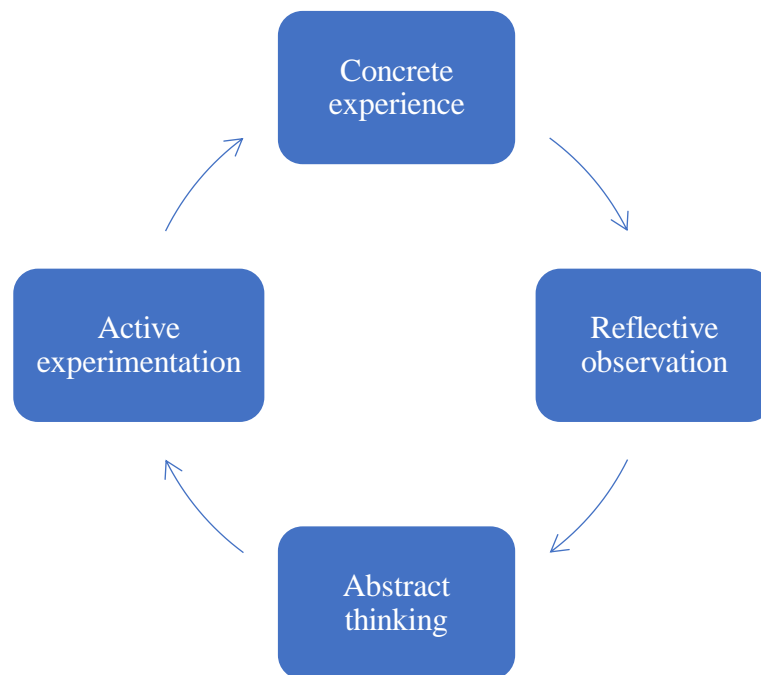


Figure 4: Kurt Lewin's model for experience based learning, based on Kolb's interpretation (Kolb, 1984).

Like Kolb, Chris Argyris also includes the step of taking action in the learning process. He explains that when we make a mistake, we have to change our behaviour accordingly so that a lasting correction happens before any learning has occurred. This constitutes what he calls "single loop"-learning. However, a conscious reflection is not required. When we include reflection, we are able to deliberately choose our strategies for overcoming the problem, and it is called double learning (Sverige & Försvarsmakten, 2000). There is a clear parallel between the model for experience-based learning and the double loop learning. Viewing them in light of role flexibility, it can be argued that having well developed social skills acquired through single loop learning and experience is a good starting point, but that in order to truly master the ability to be role flexible, double looped learning and reflection around the chosen behaviour necessary.



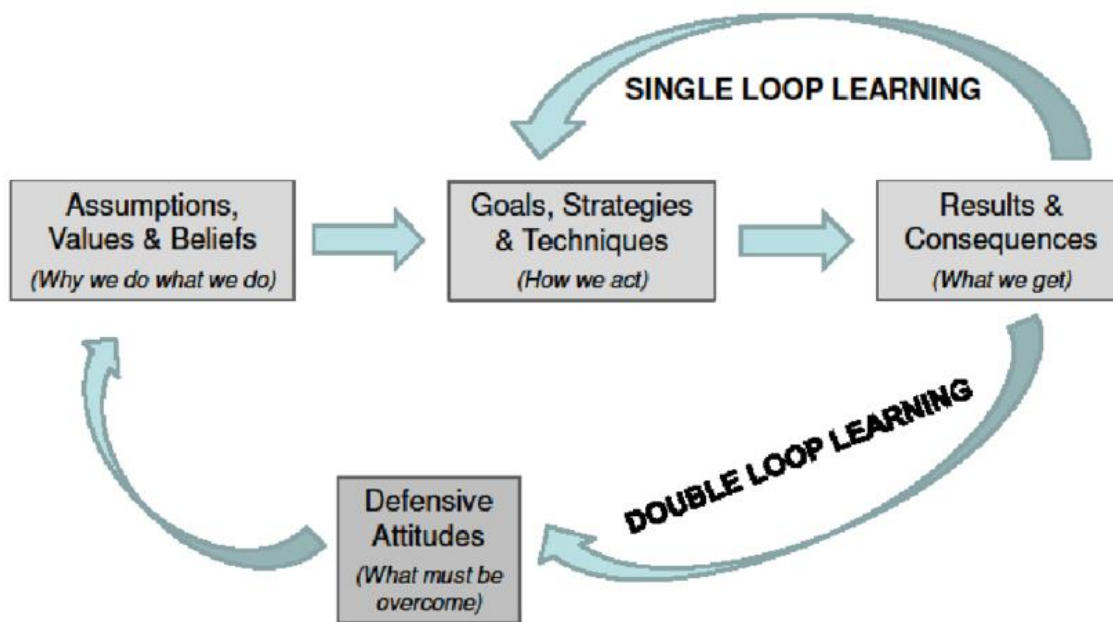


Figure 5: Single-looped and double-looped learning (Stern, 2014, p. 9).

## 2.4 Learning and motivation

Learning and how motivation influences learning is a broad field of research with many diverging views (Sjøvold, 2014). However, most researchers agree that motivation is an important factor when it comes to learning. This thesis focuses on the works of Monique Boekaerts, who in the book “Motivation in Learning Contexts” argues that a student’s behaviour in a learning situation is regulated by two main components. The first is a domain-specific cognitive component, which includes the knowledge, skills and abilities that the student brings to the learning situation. The second is a domain-specific motivation component. This refers to the student’s motivational beliefs, including their attitudes, values, motives and psychological needs and how these effect their goal directed behaviour (Volet & Järvelä, 2001).

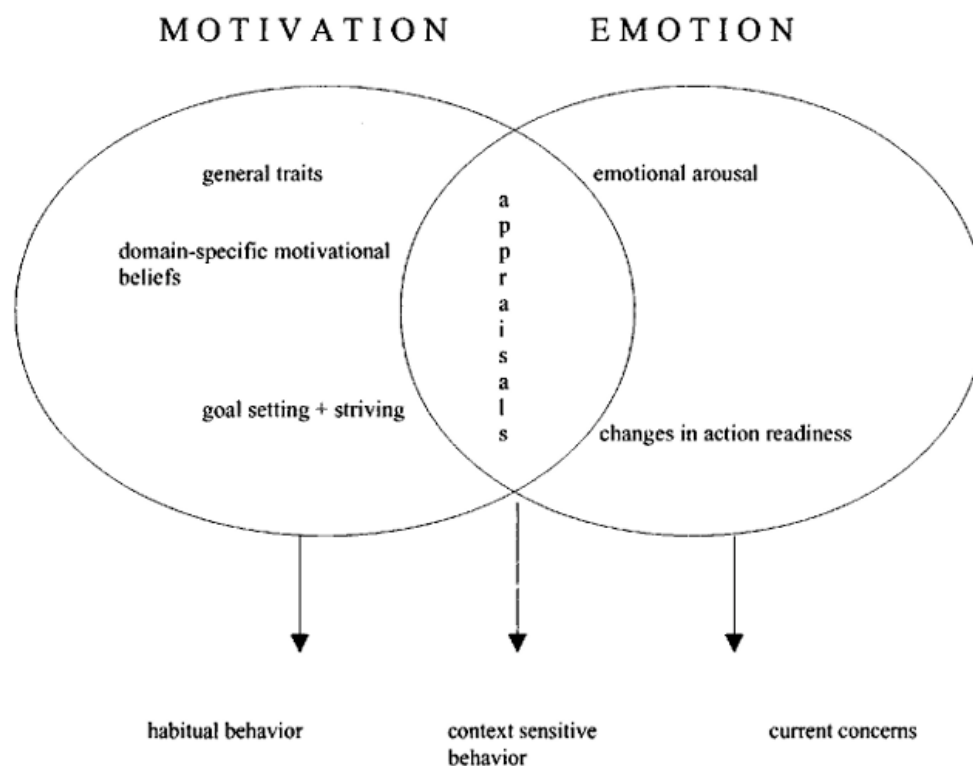


Figure 6: Model for motivation in the class room (Volet & Järvelä, 2001, p. 22)

Boekaerts views motivation as a context dependent phenomenon, and divides the factors that influence the students behaviour in a learning situation into three main categories. These are habitual behaviour, context sensitive behaviour and current concerns. Habitual behaviour includes general traits, domain-specific motivational beliefs, goal setting and striving. General traits refer to relatively stable traits, such as the student's desire to learn or inclination towards the subject being taught. Domain-specific motivational beliefs are connected to the learning situation and include factors such as autonomy, time pressure and type of instruction. Goal setting and striving refers to how the student relates what is being taught to their personal goals and how much effort they put into pursuing these goals. Appraisals addresses how the student judges several factors, such as task attraction, perceived relevance or utility and success expectations. Finally, current concerns relate to the students emotions and affects. These include relatively fluctuation factors, such as the student's relationship to teacher and other students, mood, and factors outside the learning environment (Volet & Järvelä, 2001). All of these factors influence how well the student is able to learn in a given situation.

---

As an example of the factors that influence a student in a learning situation, imagine cadet Nordmann. Cadet Nordmann wants to become a successful officer. He considers leadership abilities to be an important quality that he needs to reach his goal, and he thinks he will be able to reach it. As such, one would expect him to always pay attention and be interested when something related to leadership is being taught. This constitutes his habitual behaviour. However, the actual learning situation might alter his context sensitive behaviour. Say cadet Nordmann takes part in the larp sessions aboard the SL. He is shy and dislikes being in the spotlight during role plays. He might also have other negative appraisals about role plays, such as thinking that they are silly and unfit for use in the military. If this is the case, he might pay attention during leadership classes set in an auditorium, but not during the larp sessions. Finally, current concerns come into play. Imagine that the team's supervisor is present and observing the larp sessions. Envision cadet Nordmann wishes to give a good impression to receive a favourable review from his superior. In this case, he might still dislike the role plays, but try his best in order to impress the supervisor. It is clear that many factors are in play, and all influence how well cadet Nordmann is going to learn.

## 2.5 Learning and larp

Using role playing games for educational purposes, also known as edu-larp, have become increasingly more common recent years. This includes everything from teaching social sciences in the class room and leadership training for businesses to full scale role playing exercises in the US military (Bowman, 2014b). Some schools, like Østerskov Efterskole in Denmark, has even gone as far as to use game didactic methods in almost all their classes, including role-plays (Bowman, 2014; Østerskov Efterskole, undated). Edu-larp follows the abovementioned theoretical principles of educational theories of experimental learning. The participants *experience* something through their character, *reflect* on what they experienced during the debrief, and *think* of the implications for their own leadership, and in many cases, *act* and experiment with their new knowledge outside the larp. It should be noted, however, that because edu-larp is still developing, not much research has previously been done on the subject (Bowman, 2014) and so the sources used in the theory part are mostly emphasizing theoretical principles and the experience of educators using larp.

Bowman argues that well designed role-plays can train several skills simultaneously; while subject matter knowledge is applied, students also learn social skills such as diplomacy,

leadership and critical thinking (Bowman, 2014b, p. 113). She uses three dimensions of learning - the cognitive, the affective and the behavioural - to categorize the student developments that can be achieved through edu-larps. This is in line with the work done by then master student in psychology on larps, Yaraslau I. Kot (Kot, 2012). Another advantage of larp is that it activates the students, and is associated with a high level of intrinsic motivation (Bowman, 2014b).

| <b>Learning Dimension</b> | <b>Student Development</b>   |
|---------------------------|--|
| <b><i>Cognitive</i></b>   | <ul style="list-style-type: none"> <li>• Critical ethical reasoning</li> <li>• Exercising creativity, spontaneity, and imagination</li> <li>• Intrinsic motivation</li> <li>• Improved problem-solving skills</li> <li>• Learning multiple skills and knowledges simultaneously</li> <li>• Self-efficacy, perceived competence</li> </ul>  |
| <b><i>Affective</i></b>   | <ul style="list-style-type: none"> <li>• Active engagement</li> <li>• Enhanced awareness of other perspectives</li> <li>• First-person identification improving emotional investment</li> <li>• Increased empathy</li> <li>• Increased self-awareness</li> <li>• Intrinsic motivation</li> <li>• Raising social consciousness</li> <li>• Social skills development, e.g. cooperation, debate, negotiation</li> </ul> |
| <b><i>Behavioral</i></b>  | <ul style="list-style-type: none"> <li>• Active engagement</li> <li>• Exercising leadership skills</li> <li>• Intrinsic motivation</li> <li>• Improving team work</li> </ul>   |

Figure 7: Cognitive, affective, and behavioural dimensions of student learning through edu-larp, from the article “Educational Live Action Role-playing Games: A secondary Literature Review” published in the Wyrd Con Companion book 2012, page 115.

Examples from the cognitive dimension include developing self-efficacy by having opportunities to successfully use skills (Balzac, 2011). Self-efficacy can be defined as an individual’s belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1997). Enactive mastery experiences are listed as the first of four principal sources of information which self-efficacy beliefs are constructed from. Studies have shown that the sail with SL previously have had a positive effect on the cadets self-efficacy as well (Erstad, 2020) Furthermore, Harder suggests that role-playing allows the student to connect their theoretical knowledge to practical knowledge through experience, and thus bridging the gap between the two (Harder, 2007). Dewey likewise argues that knowledge we have first-hand experience with is easier to internalizes than so called bookish knowledge, or theoretical knowledge (Shook, 2000). Finally, Hyltoft calls attention to the benefits of the

freedom playing a role in a larp can provide, by setting aside the normal social roles which no longer apply within the fiction (Hyltoft, 2010).

Looking at the affective dimension, one example is training of the three qualities of empathy as defined by Robert W. Levenson and Anna M. Ruef; knowing what another person is feeling, feeling what another person is feeling, and responding compassionately to another's distress (1992, p. 234). This can be related to the part of role flexibility connected to reading situations correctly and choosing the appropriate behaviour. Tim Marsh has exemplified this in his article, "Vicarious experience: staying there connected with and through our own other characters"(Marsh, 2005, p. 14):

For example, compassionate empathy can be demonstrated by a player-character responding kindly to another character. Cognitive empathy can manifest itself through a player knowing how other characters are feeling by observation or spectatorship, or through interacting with other characters. Emotional empathy is similar to cognitive empathy, but in addition to knowing how other characters are feeling, the player feels these emotions as their own.

The behavioural dimension involves being able to make decisions within the fiction of the larp, and see the consequences of these decisions, without it having any impact on the real world. Having this safety enables participants to try new things and fail when attempting something new or unfamiliar, and then take what they learned with them out of the larp (Hoge, 2013). This removes the social pressures that normally hold people back from practicing roles outside their comfort zone.

---

### 3. Research design

The purpose of this part is to outline the research design used to answer the research question and examine the hypotheses. First, the method will be described. Secondly, the research process is explained. Continuing, a thorough description of what a typical larp session looked like and the three data acquisition methods that were utilized follows. Finally ensues a description of how two new variables were created for the analysis.

#### 3.1 Method

The research method utilized was a quasi-experiment with a pre-test post-test comparison-group design and a non-equivalent control-group (Myers et al., 2010). In order to answer the research question and assess if larps could be useful in the leadership training at RNNA, five larp sessions were run with all the cadets in the class of 19-22 (N=64). The class of 19-22 was chosen as a sample group from the entire population of cadets because they were in their first year of training and therefore had the greatest focus on leadership training. For practical reasons, the only time where it was possible to run the sessions was on board the tall ship SL. This meant that having an objective control group on board was unmanageable, as the cadets lived so close together and impacted each other. Instead, it was decided that all the cadets should undergo the same training, and as a reference the class of last year, 18-21 would be used. The mean ages at the time of admission in the class of 18-21 (M=X) and 19-22 (M=X) differed with only half a year. However, the class of 19-22 had six cadets with war experience from Afghanistan, whereas the class of 18-21 had none. Observation, a questionnaire (appendix B) and SPGR-tests were used to collect empirical data. These three data collection methods are thoroughly described below. To test the hypotheses, a quantitative approach was chosen. Due to the scope of the thesis, it will not go into the details of all the effects the larps have had, but rather focus on the effects they had on the cadets' ability to be role flexible. The results and analysis are presented by using the four levels of the Kirkpatrick Model, which is a broadly used model for evaluating training programs (Kirkpatrick & Kirkpatrick, 2016).

---

## 3.2 Research process

The research process began in December 2019. The choice of topic was inspired by my own experiences with the education at the RNNA. Even though the theory taught us that role flexibility was one of the most important factors for a team to function in complex situations, I experienced that my fellow cadets and I fell back on what we were comfortable with and hesitated to try new behaviours in our leadership. I saw the need for a new training arena in which we could experiment without the fear of failing. Seeing potential in larps, I created five larp sessions with the purpose of training cadets to become more role flexible.

A strict time constraint for the execution of the larps led to a design that focused completely on role flexibility, cutting away any elements not contributing to this. To ensure the quality of the larp sessions, they were play-tested twice with different participants. Larp session one and three was play tested with 16 of the students at Metis high school. Though the high school students were younger than the cadets and not organized in teams the same way, the play test still gave a general feel for how a group with no prior experience with larp would react to them. Through a questionnaire filled out by the students and an in depth interview with one of them, valuable feedback was acquired, and the sessions adjusted accordingly. Larp session one was play tested a second time at the Norwegian Larp Festival Spillerom 2020. These participants were all experienced larpers. Feedback was also received from this group, and some final adjustments were made.

In the meantime, the first year cadets at the RNNA had set sail from Bergen to Tenerife. Just prior to their arrival at Tenerife, all teams conducted a Systematizing Person-Group Relation (SPGR) test. This test will be explained in more detail below in the part about data acquisition. I joined them at Tenerife, and conducted five larp sessions with each team during the following two weeks. None of the cadets had ever played a larp before. Each session consisted of a workshop, a larp, and a debrief. In the first and second session, they played the same larp. The first time half of the team were observers, and the other half were players, and the next time they switched positions. The same happened in the third and fourth session, but in the fifth, everyone played at character at the same time, and there were no observers. This gave a total of three different larp scenarios played out in five sessions. After this, all the cadets filled in a questionnaire about their experience with the larp sessions and what they had learned. I left the

cadets in Bermuda, and they continued their sail to Norfolk, Virginia. A few days before their arrival in Norfolk, the teams conducted another SPGR-test.

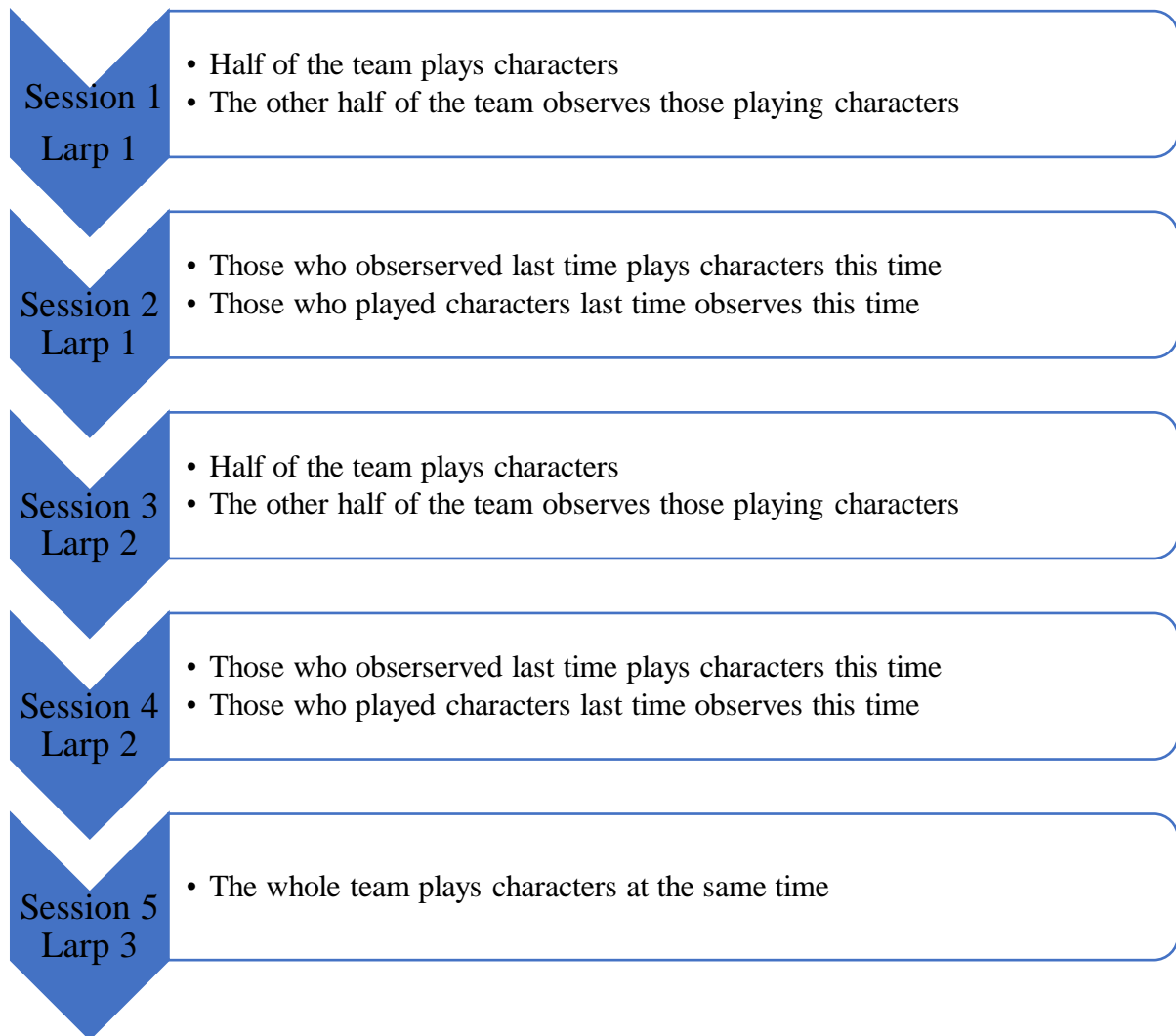


Figure 8: Overview of the five larp sessions.

When I got back to Norway, the processing of all the empirical data that had been collected began. The responses from the questionnaire were quantified and analysed using the computer program SPSS. Two new variables addressing the cadets' inclination towards the sessions and how challenged they felt by the characters they played were created from the data in order to examine hypothesis number 2 and 3. Finally, the results were discussed in light of the hypotheses.



| <b>Date</b>         | <b>Activity</b>          | <b>Description</b>   |
|---------------------|--------------------------|--|
| 01.12.19            | Start-up bachelor thesis | Larp and role flexibility was chosen as research area                                      |
| 27.01.20            | Play test 1              | Play test of larp session one and three with students at Metis High School                 |
| 01.02.20            | Play test 2              | Play test of larp session one with experienced larpers at the Larp Festival Spillerom 2020 |
| Around 04.02.20     | SPGR-test 1              | The teams conduct the first SPGR-test internally   |
| 07.02.20            | Arrival at SL            | I joined the cadets on SL in Tenerife  |
| 10.02.20 - 21.02.20 | The larp sessions        | All teams take part in five larp sessions  |
| 24.02.20 - 26.02.20 | The questionnaire        | All participants fill in a questionnaire about the larp sessions                           |
| 27.02.20            | Departure from SL        | I left the SL in Bermuda, and the cadets sailed on   |
| Around 05.03.20     | SPGR-test 2              | The teams conduct the second SPGR-test internally  |

Table 1: Timeline showing the research process

### 3.3 The larp sessions



Figure 9: One of the teams playing characters during a larp.

In order to give the reader insight into what a typical larp session entailed, a detailed description will follow. First, a 20 minute workshop was conducted. This contained an ice breaker exercise, encouraging silliness and focus. Then the characters sheets were distributed based on the participants wishes. The characters were based on the different roles listed in Endre Sjøvold's book "Teamet" (Sjøvold, 2006, p. 108), each focusing on one of the four functions; nurture, control, opposition or dependence. They were encouraged verbally to pick characters that would challenge them. The participants who were going to train observation - about half of the team - received one or two observation forms written for characters they were going to pay special attention to. The players did a round where they presented their characters and the relations they had to the other characters. Next, the larp ran for 30 minutes, starting with the facilitator playing a supervisor giving them a task to solve. This could for instance be inventing a plan to improve the organization's reputation. The group got time to discuss, and the

supervisor re-entered the larp right before the time was up, demanding to hear their plan. The larp ended after this. During the larp, the observers filled out their forms from the side line. Finally, there was a 20 minute debrief where everyone participated. The debrief always begun with a round where all the players got to say a bit about how they were feeling as themselves (as opposed to as their characters). This was followed by a round where the players could share something they had learned, experienced, though or observed during the larp. Then the observers got to share one to two observations they had made where the player they had focused on succeeded in depicting their character's traits and the effect this behaviour had had on the group. This could for example involve being nurturing or task oriented. After this, the remaining time would be used for a more open discussion where the facilitator would typically bring up own observations as well. The session finished after 70 minutes in total.

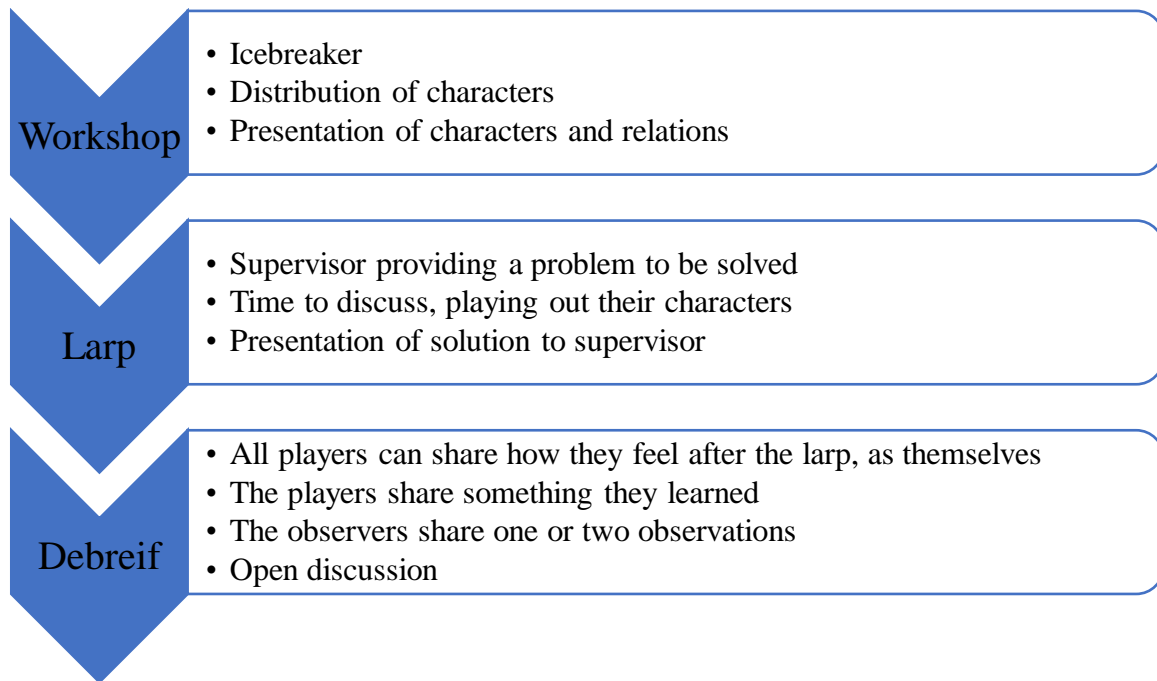


Figure 10: A typical larp session

---

### 3.4 Data acquisition

This part describes in depth how the empirical data used to examine the hypotheses was collected. Three main methods of data acquisition were used. The first was observation during the larp sessions, the second was a questionnaire, and the third was the results from SPGR-tests. The questionnaire and the SPGR-tests have received the most weight in the analysis, and the observations have been used to verify the results from the other two.

#### Observation

The first method of data collection was observation. Observation can be defined as attentive perceiving, and it distinguishes itself from just seeing or sensing something because it is a conscious effort, and preferably systematized in scientific contexts (Kirkpatrick & Kirkpatrick, 2016). Observation of both first and second order was used. First order observation, also called non-participant observation, means that the observer is outside the situation and has observation as their primary task (Guthrie, 2012). This was the main level of observation during the larps. Second order observation, also called participant observation, entails that the observation happens as an auxiliary activity. During the workshop and debrief, the observations were of the second order.

To systematize the observations, they were written down in a single document giving a good overview of the data. The observations commented on the general feel of the sessions, the characters in play, episodes that stood out, and how deep the discussions in the debrief went. The reliability is reinforced by the fact that observations were made from 100 percent of the sessions, eliminating the risks of errors that a small sampling group represents. There was complete transparency concerning the fact that notes were made during the sessions, and the participants were informed of what the notes would be used for.

In general, there are many factors that make objective observation problematic, such as personal biases and the way the observer influences the situation (Bjørndal, 2002). As the role of a researcher was filled simultaneously as the roles as a facilitator in the larp sessions, this is especially true in this case. In the role as a facilitator, I was highly motivated to make the sessions work as intended and maximize the learning outcome for the cadets. This means that adjustments were made underway in order for the sessions to run as smoothly as possible. The

observations were made in light of this, and are likely coloured by the wish for the project to succeed. However, I was aware of possible biases as I observed, and strove to be objective with the notations.

### **The questionnaire**

The second method of data collection was a questionnaire filled out by all the cadets after the finalization of the last larp session. The questionnaire had two main goals; the first was to collect data for this thesis, and the second was to get feedback to improve the sessions in the future. There was a meeting with each team with introductory information about the questionnaire and then up 30 minutes to complete it. The questionnaire consisted of 23 questions, combining closed response scales with open response questions (Guthrie, 2012).

The questionnaire design is based on the New World Kirkpatrick Model. This model describes four levels for evaluating a training program: level 4, the desired results; level 3, the behaviour needed to accomplish the desired result; level 2, the knowledge, skills and attitudes needed to utilize these behaviours; and level 1, the participants' initial reaction to the training program itself (Kirkpatrick & Kirkpatrick, 2016). The questionnaire sought to reveal the degree to which each of these levels were achieved.

### **The Four Levels**

|                              |   |
|------------------------------|---|
| <b>Level 1:<br/>Reaction</b> | The degree to which participants find the training favorable, engaging and relevant to their jobs   |
| <b>Level 2:<br/>Learning</b> | The degree to which participants acquire the intended knowledge, skills, attitude, confidence and commitment based on their participation in the training |
| <b>Level 3:<br/>Behavior</b> | The degree to which participants apply what they learned during training when they are back on the job  |
| <b>Level 4:<br/>Results</b>  | The degree to which targeted outcomes occur as a result of the training and the support and accountability package  |

Table 2: The four levels of the New World Kirkpatrick Model (Kirkpatrick & Kirkpatrick, 2016, p. 25).

---

The questionnaire utilized both open response and closed response questions to ensure high validity and reliability. The open response questions had a high degree of validity, as they left room for the cadets to express themselves freely, but lacked a bit on the reliability as the cadets could interpret the questions differently. This can be seen in question 1 in the results further down where a great part of the respondents did not really answer the first part of the question. The closed response scales had a much higher degree of reliability, but lower validity than the open response questions, as they were more restrictive. The combination of the two types of questions yields a high degree of both validity and reliability.

A hazard to the validity of questionnaires in general is the emotional states of the respondents when they fill it in (Kirkpatrick & Kirkpatrick, 2016). To lessen the effect of the cadets' immediate affects towards the larp sessions, the questionnaire was not handed out until at least three days after the last session was completed. Because of the exhausting nature of the cadets' days on board the ship, the ideal was for them to fill in the questionnaire in the daytime when they were most awake and ready. This was accomplished with all teams except one, which did it late in the evening. This provided a high level of validity. Other parallel activities on board could also have affected the respondents emotional states and thereby their answers, such as exam dates which were closing in. It was observed that many of the cadets were eager to finish the questionnaires as quickly as possible so that they could get back to studying or other duties. To counter this, the importance of reading the questions thoroughly was explained - that the results would be used for research later - and it was voluntary to fill in the questionnaire.

## **SPGR**

The third and last data collection method is Systematizing Person-Group Relation (SPGR) tests. SPGR is an operationalization of the abovementioned spin theory, and can be applied as a tool to illustrate the dynamics in groups (Sjøvold, 2014). These tests have been used for several years at the RNNA to map the group dynamics within the teams and as a starting point for discussions around the topic. The results used in this thesis were obtained from the school archives. Though SPGR-tests results from earlier years were available, only those of last year was used to ensure the highest possible degree of comparability. A major reform in the education in 2018 led to many changes, including cutting the education by one year, compared years previous years. On board, the SPGR-tests were conducted internally in the teams, and at the same geographical points of the sail each year. This enabled the thesis to compare this year's results with those of

last year. The time of the first test was approximately one week prior to the first larp session. The second test took place around two weeks after the last larp session.

The test itself consisted of a form the team members filled in about each other. The form had a list of 24 types of behaviour, and the team members scored each other on each behaviour based on the frequency with which they had observed the behaviour in each other the last weeks. They could choose 0, 1 or 2 where, 0 meant “never or seldom”, 1 meant “sometimes” and 2 meant “often or always”. Based on the scores from the other team members, each member received a diagram and a final score, indicating how they were perceived within the team in the time period covered by the test. This score can among other things be represented as numbers in a coordinate system with an x, y and z axis. The x-axis represents self-oriented behaviour to group-oriented behaviour, the y-axis emotional expressions and spontaneity to task-oriented behaviour, and the z-axis passivity to a high level of influence (Nissestad, 2007). Comparing the scores from 389 successful Nordic leaders has resulted in a Nordic “norm” (Sjøvold, 2014). This gives scores of  $x=12$ ,  $y=7$  and  $z=5$ . It has previously been argued that a good military officer should have even more influence than a civilian leader, and that the ideal z-value for a military officer should be 8 instead of 5 (Nissestad & Espevik, 2004).

The z-score is used as a measurement for the ability to show role flexibility in this thesis. A high z-score is considered desirable, as it signifies influence within the team, and an ability to balance the different functions within the group – nurturing, dependence, control and opposition. Sjøvold describes a high z-score as an indicator of robustness and role flexibility within a group (Sjøvold, 2006). It is therefore considered to be an adequate measurement of the ability to be role flexible.

### 3.5 New variables

As a means to examine hypothesis number 2 and 3, two new variables were produced. The first measured the cadets' *inclination towards the larp sessions* and the second *degree of challenge* the cadets felt in the roles they played. Concerning the degree of challenge they felt by the roles, a component based score was generated based on the average score each participant reported for the roles they played.

Question 3, 4, 7, 8 and 9 were combined into a single variable that could be used to explain the participants' inclination towards the larp sessions. These questions all measure different aspects of the cadet's motivation and attitude towards this way of learning. The parallels to habitual behaviour, context sensitive behaviour and current concerns that influence the student in a learning situation - recognized from the theory about learning and motivation - are many. Question 1 would have been natural to include as well, but was excluded due to the high number of ambiguous answers. An exploratory factor analysis was performed on the five questions to make sure that they all measured the same underlying construct: inclination towards the larp sessions. The overall Kaiser-Meyer-Olkin (KMO) measure was 0,83, classified as "meritorious" according to Kaiser (1974). Barlett's test of sphericity was statistically significant  $p < 0,0005$ , indicating that the correlation structure was adequate for the factor analysis. A maximum likelihood factor analysis, a direct oblimin rotation, and the Kaiser's criterion of eigenvalues greater than 1 was used. This yielded a one-factor solution as the best fit for the data, accounting for 65,58 percent of the variance. Visual inspection of the scree plot (Diagram 1) supports that one factor should be retained. The interpretation of the data was consistent with the factor the questions were designed to measure inclination towards the larp sessions. This resulted in a component score, which was later used in the analyses.



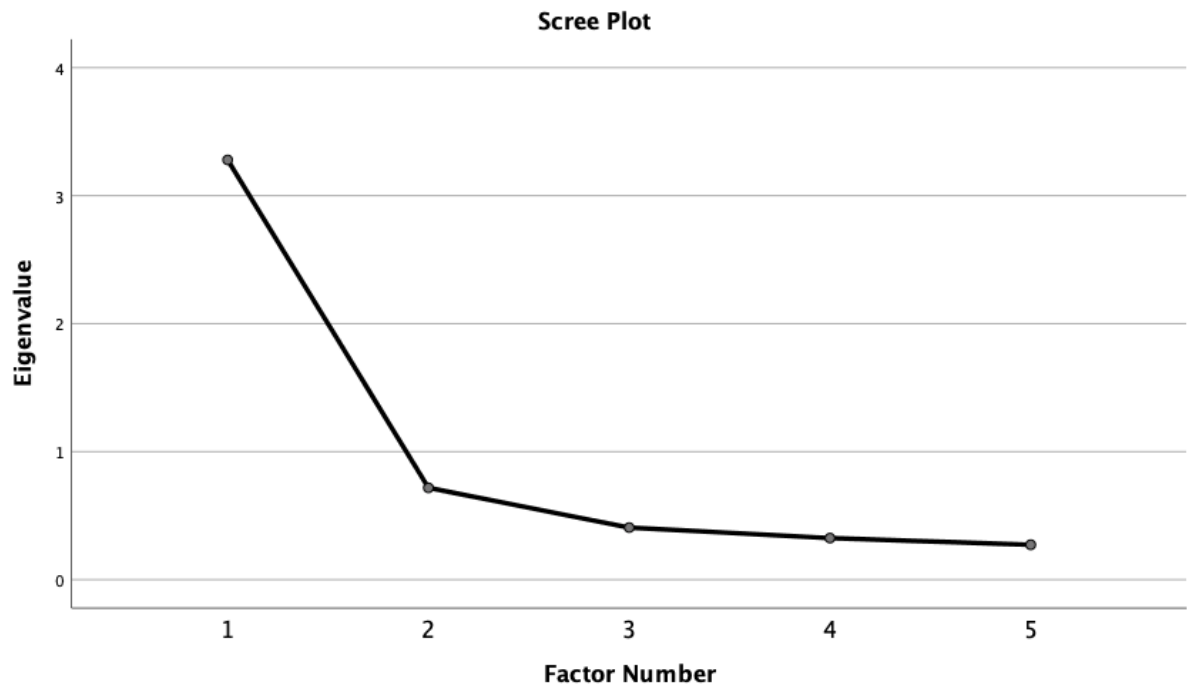


Diagram 1: Scree plot showing the eigenvalue of the different factors from the exploratory factor analysis

## 4. Results

This part consists of the results that were found using the method described above. The results are presented using the four levels in the Kirkpatrick evaluation method, which were also employed to structure the questionnaire. Level 1 is used to evaluate the participants' initial reaction to the larp sessions themselves. The theory states that students need to be motivated to learn, and how the program is structured is an important part of this (Volet & Järvelä, 2001). Level 2 measures if the participants acquired the intended knowledge, skills, attitude, confidence, and commitment from the sessions. It was hypothesised that the positively inclined cadets would have the greatest development in their ability to observe and that the positively inclined cadets who played characters they found challenging would have the greatest broadening of their behavioural spectra. Level 3 includes the results concerning whether the cadets began to use the knowledge and skills they acquired in the larp sessions outside the larp sessions as well. Hypothesis number 1 predicted that the cadets would increase their ability to show role flexibility. Level 4 is concerned with whether the behaviour that occurred as a result of the larp sessions helped the Navy reach its main goal; to defend Norway (Kirkpatrick & Kirkpatrick, 2016). Because of the scope of the thesis, it was not possible to measure level 4 directly, but it was inquired into the cadets' expectations. The account below will cover all of this, starting from the lowest level concerning their immediate reactions to the larp sessions and moving up to the real life results.

### 4.1 Level 1 - Reaction

Level 1 of the Kirkpatrick evaluation model can be described as “*The degree to which participants find the training favourable, engaging, and relevant to their job*” (Kirkpatrick & Kirkpatrick, 2016, p. 50). The theory shows us that the cadet's motivation, appraisals towards the situation and emotions are important factors that impact whether learning will take place. If the students do not find the class engaging or relevant, their attention will soon slip away to other things. Have we not all at some point listened to a monotone voice reading from a power point slide, and felt our minds begin to wander just a little? Thus, we can expect to find a greater effect of the role plays in the students with a positive attitude towards the sessions, and who liked this way of learning. These aspects are covered by four questions from the questionnaire.

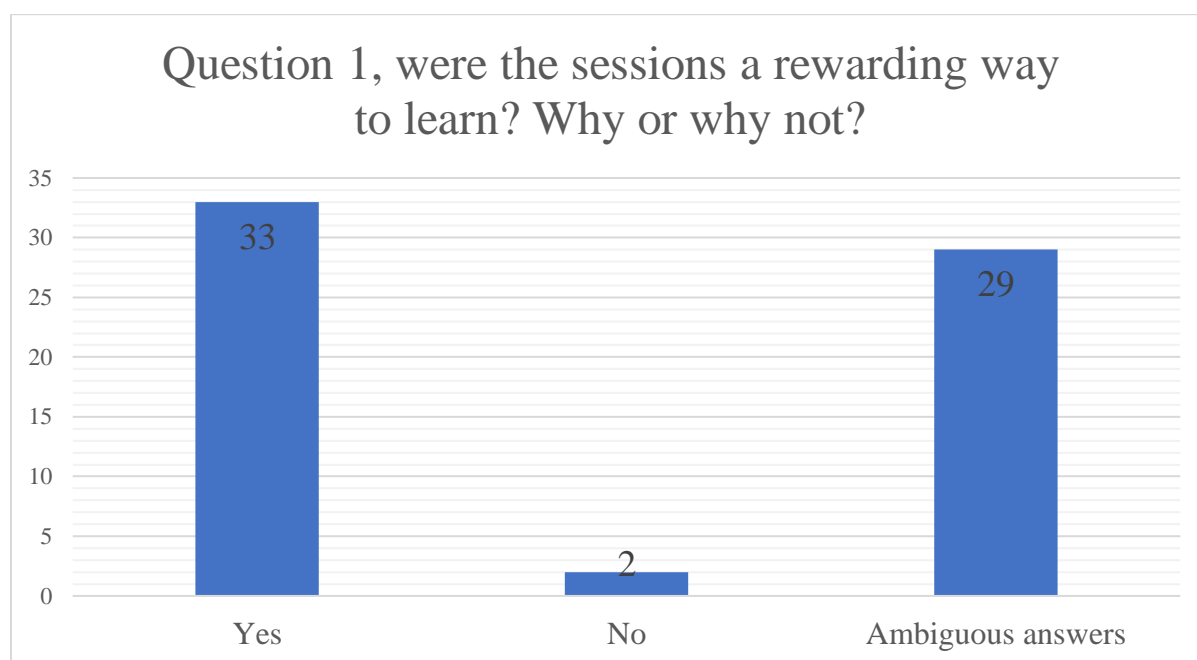


Diagram 2: Question 1, were the sessions a rewarding way to learn? Why or why not?

These are habitual behaviour, context sensitive behaviour and current concerns.

First, level 1 will consider how *favourable* the cadets found this way of learning. Question 1 relates to the cadets' appraisals toward the learning situation. The responses to question 1 are divided into three categories, "yes", 51,6 percent, "no" 3,1 percent and "ambiguous answer", 45,3 percent. As the questionnaire did not have boxes in which to answer "yes" or "no" directly, many of the answers were ambiguous, or did not answer the actual question, but rather contained more general comments on what they had learned. Only those who answered the question clearly is listed as "yes" or "no" above. For more details, please see appendix C.

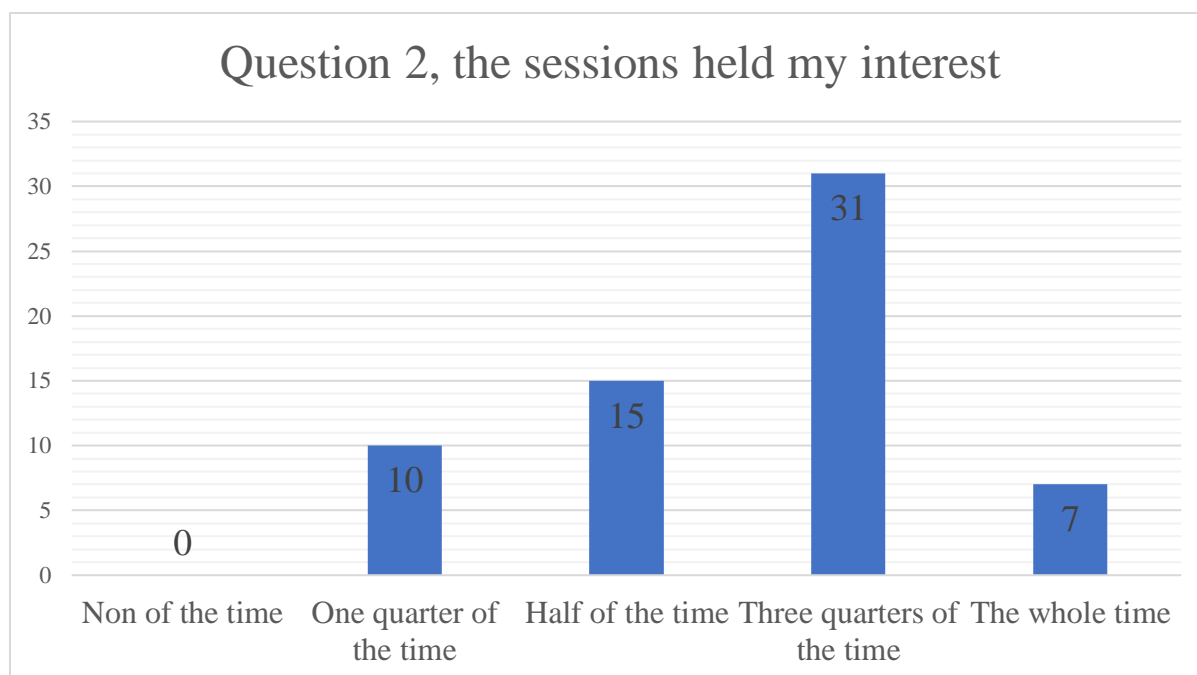


Diagram 3: Question 2, the sessions held my interest (this much of the time).

The next point to consider is how *engaging* the larp sessions were perceived. Question 2 is mainly related to the habitual behaviour and context sensitive behaviour. From the diagram above, we see that 38 cadets, 60,3 percent, report that the sessions held their interest for three quarters of the time or more. The remaining 25 cadets, 39,7 percent, found the sessions interesting half of the time or less. This fits well with the observations conducted during the sessions. Though the level of student activation was high throughout the sessions for everyone, some cadets were clearly more reserved than others, and took little initiative. The majority though, appeared to be serious in their efforts to contribute. Another trend noted in observations was that the cadets seemed to be somewhat tired and reserved at the beginning of each session, but that the energy level rose after the workshop, and remained high (at least for the players) during the larp. The debriefs were more varied, where some lead to lively discussions with great engagement, while others would be shorter and characterised by their readiness for their recreation time afterwards.

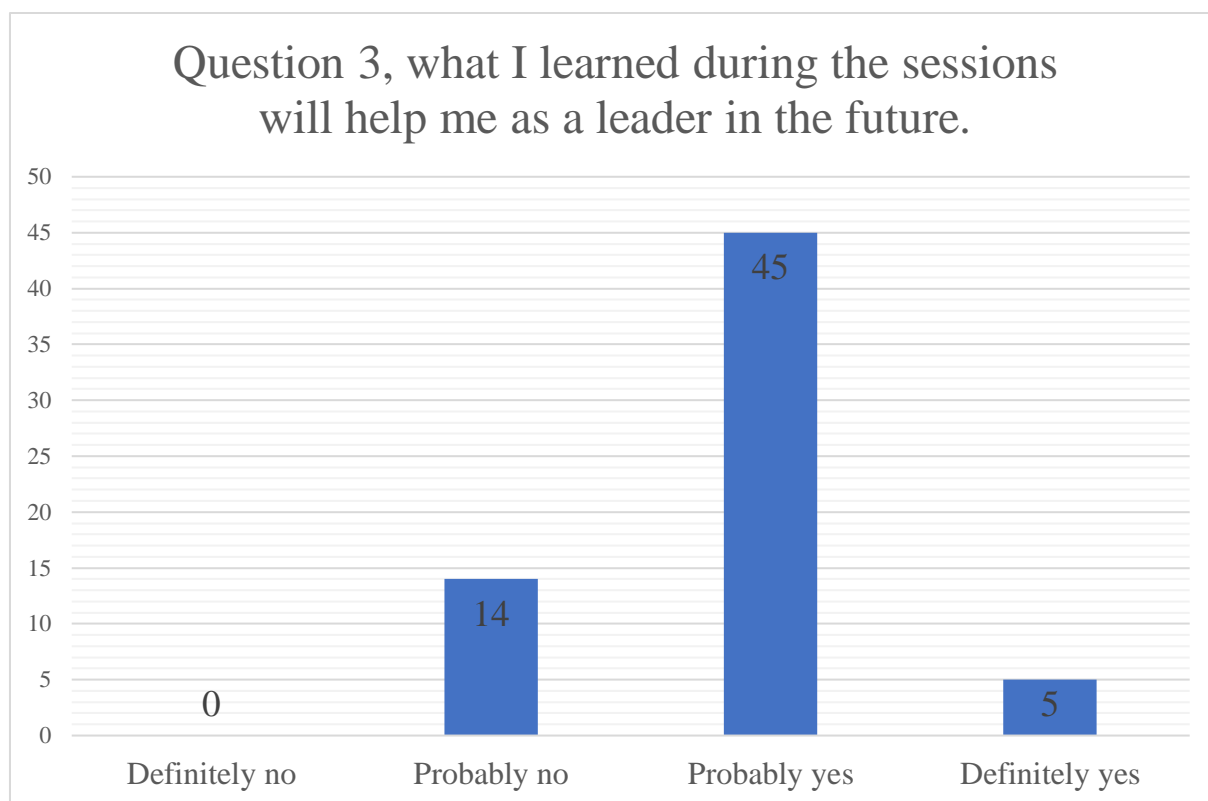


Diagram 4: Question 3, what I learned during the sessions will help me as leader in the future.

The last aspect of level 1 is how *relevant to their jobs* the cadets found the sessions. This question relates to the cadets' goal setting (Volet & Järvelä, 2001). The diagram above, representing question 3, shows us that 78,1 percent think what they learned during the sessions probably or definitely will help them as leaders in the future, while 21,9 percent answer probably no.

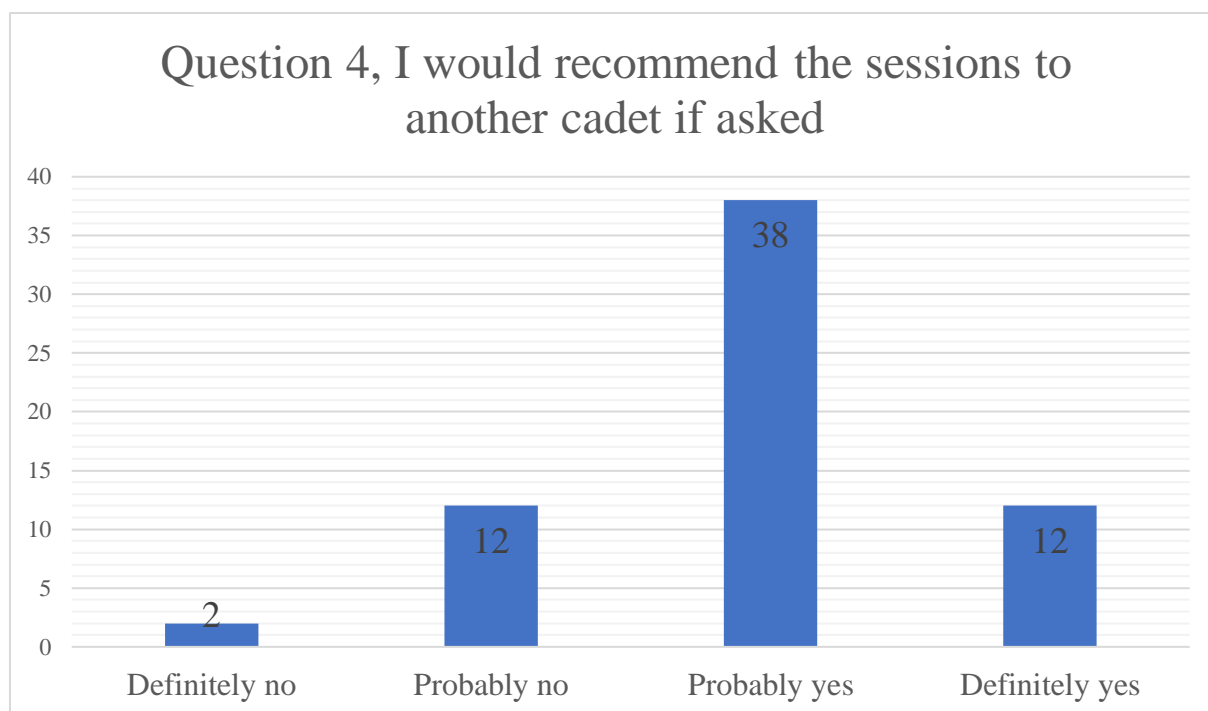


Diagram 5: Question 4, I would recommend the sessions to another cadet if asked.

All the three aspects covered above - how favourable, engaging and relevant to their job the participants found the training – are covered in question 4, about whether they would recommend the sessions to another cadet if asked. 78,1 percent were generally positive to the sessions and would probably or definitely recommend them, while 21,9 percent would probably or definitely not recommend them.

---

## 4.2 Level 2 – Learning

The next level that the thesis will examine is level 2. It is defined by Kirkpatrick as “*The degree to which participants acquire the intended knowledge, skills, attitude, confidence, and commitment based on their participation in the training*” (Kirkpatrick & Kirkpatrick, 2016, p. 53). Only skill, knowledge and attitude will be examined here because they are the factors included in the analysis later on, though the thesis acknowledges that flaws in confidence or commitment are common reasons why some training programs fail (Kirkpatrick & Kirkpatrick, 2016). The thesis hypothesises that the cadets will increase their ability to show role flexibility after participating in the larp sessions. The skills and knowledge required to show the ability role flexibility can be divided into two main areas; having a wide behavioural repertoire; and being able to read a situation and choose an appropriate behaviour in order to solve it. According to hypothesis number 2, the widening of the cadets behavioural repertoire is expected to have been greatest when they felt positively inclined towards the larps sessions and found the roles they played challenging. Hypothesis number 3 predicts that the positively inclined cadets will develop their ability to observe the ones around most. To distinguish between the skills and knowledge acquired through the larp sessions, as opposed to the other training arenas on board, question 5 and 6 covers addresses these aspects in the questionnaire. Question 7 covers the level of challenge the cadets experienced.

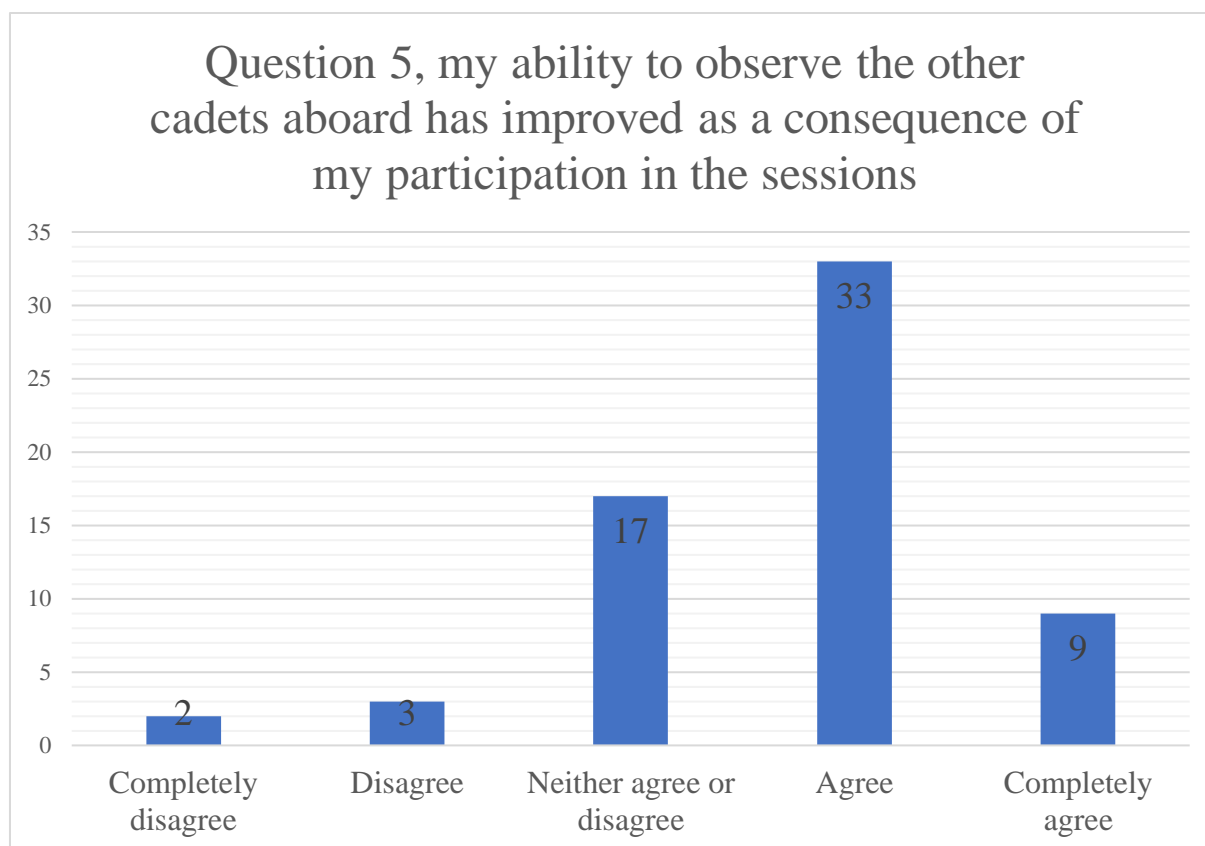


Diagram 6: Question 5, my ability to observe the other cadets aboard has improved as a consequence of my participation in the sessions.

First, level 3 will look at the *skills* and *knowledge* needed to *read a situation and choose the appropriate behaviour*. The first step to reading a situation is to actively observe it and understand what is happening. We can recognize this from Kurt Lewin's model for experience based learning from on Kolb's interpretation, which is found in the theory above. In the larp sessions, the participants *experienced* the different characters and roles either through playing or observation. If they were interested and motivated to do so, they would *reflect* on what they observed as the scenario played out and *think* about the implications during the debrief afterwards. Those who finished the whole learning circle would also continue with *active experimentation* outside the larp sessions in real life. From the diagram above, we read that 65,6 percent of the cadets report that their ability to observe other cadets have improved as a consequence of participating in the larp sessions. 17 cadets, 26,6 percent neither agree or disagree that their ability has been improved, and 7,8 percent disagree or completely disagree. According to hypothesis number 2, we would expect the cadets who were positively inclined towards the larp sessions to have had the greatest development in their ability to observe other cadets. This was further examined in a Mann-Whitney U test.



Next, a Mann-Whitney U test was run to determine if there were differences in self-reported increase in ability to observe as a result of participation in the larp sessions (question 5) based on whether or not the cadets were positively inclined towards the larp sessions. The cadets were divided into two groups based on their component score on inclination towards the sessions; those who scored 0 or below were placed in the negatively inclined group(N=22), and those who scored above 0 in the positively inclined group(N=40). Distribution of observation scores for positively and negatively inclined cadets were similar, as assessed by visual inspection of the population pyramid. Observation development scores were statistically significantly\*\* higher in the positively inclined participants (Mdn=4,00) than in the negatively inclined (Mdn=3,50),  $U=619,5$ ,  $z=2,883$ ,  $p=0,004$ . This means that the positively inclined cadets reported a greater development in their ability to observe other cadets than the negatively inclined cadets.

## Independent-Samples Mann-Whitney U Test Inclination towards the larp sessions

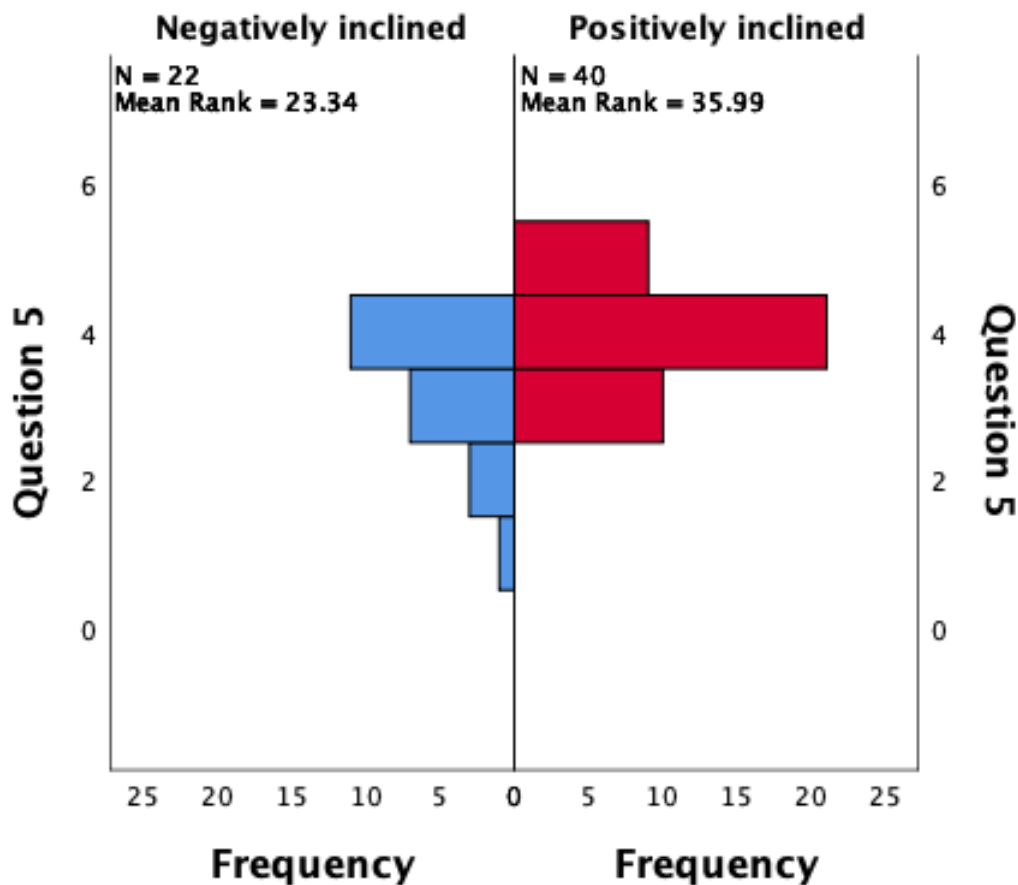


Diagram 7: population pyramid from the Mann Whitney U test

| Groups               | N  | Median | Mean |
|----------------------|----|--------|------|
| Negative inclination | 22 | 3.50   | 3.27 |
| Positive inclination | 40 | 4.00   | 3.97 |
| Total                | 62 | 4.00   | 3.73 |

Table 3: Scores showing development of the ability to observe other cadets

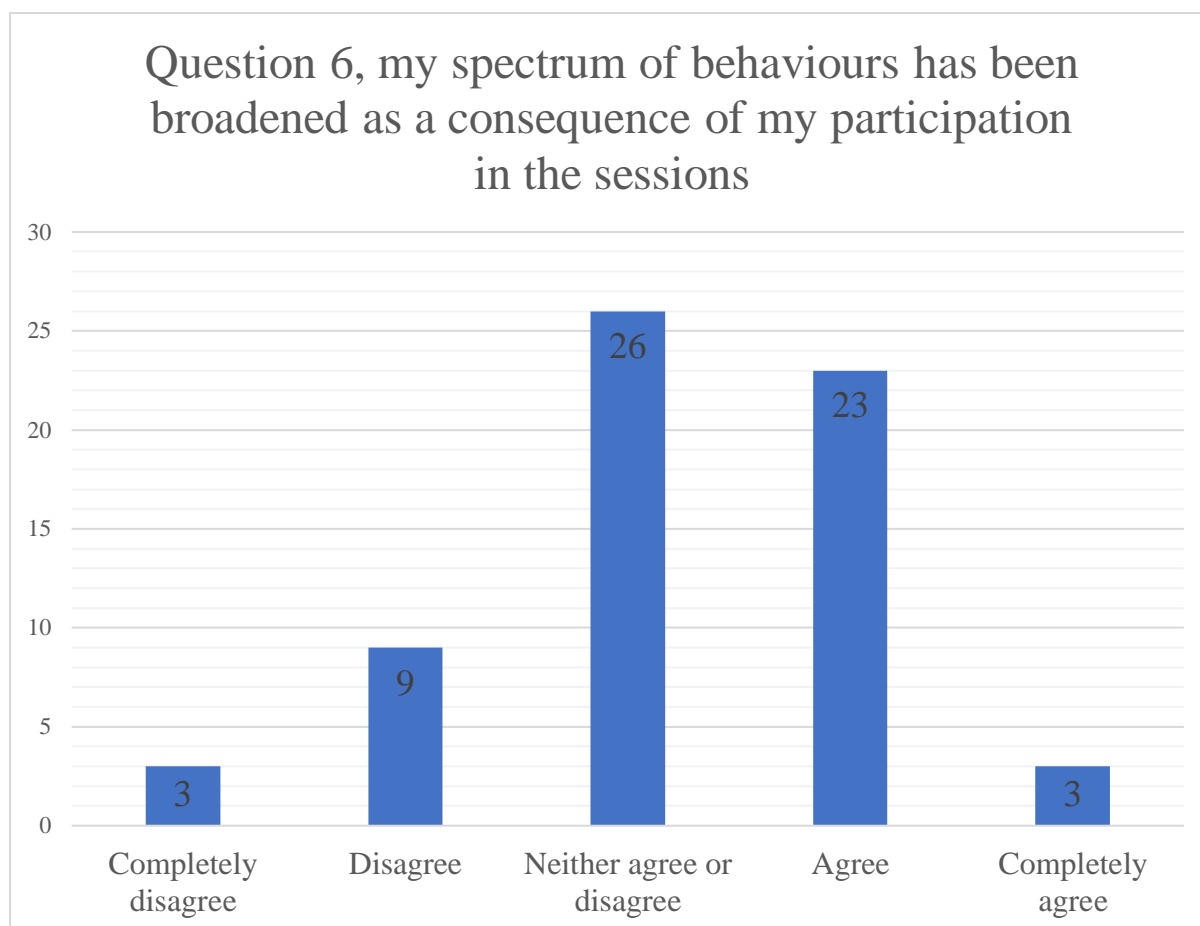


Diagram 8: Question 6, my spectrum of behaviours has been broadened as a consequence of my participation in the sessions.

Continuing, the *skills* and *knowledge* needed to broaden the cadet's *spectrum of behaviours* will be examined. Once a person with a well-developed ability to be role flexible has read a situation, he or she has a wide repertoire of behaviours to comfortably choose from. The spin theory teaches us that members of newly formed groups naturally take on roles they are comfortable with, even though this might not be the best solution for solving the task at hand. In order to extend one's tool box with more options to choose from, it is necessary to practice behaviours outside the comfort zone. The diagram above shows us that 26 cadets, 40,6 percent, agree or completely agree that their spectrum of behaviours have been broadened as a consequence of their participation in the sessions. The same number, 40,6 percent, neither agree or disagree, and 12 cadets, 18,8 percent, disagree or completely disagree. According to the hypothesis number 2, it was expected that those who were positively inclined towards the larp sessions would have the greatest development in their spectrum of behaviours, as reported in question 6.

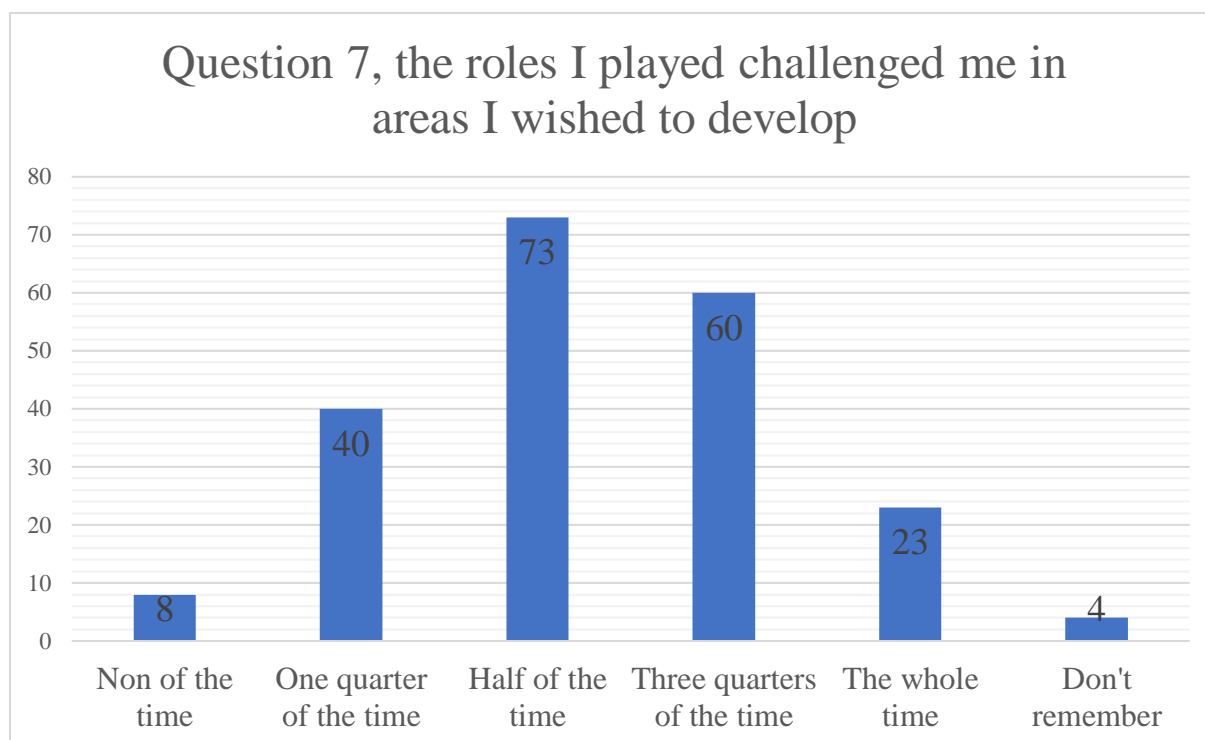


Diagram 9: Question 7, the roles I played challenged me in areas I wished to develop.

Another important part of mastering a new behaviour is getting out of one's comfort zone and practicing (Sjøvold, 2014, p. 23). Question 7 inquired into how challenging the participants found the roles they played. The diagram above shows the degree of challenge in the roles for all the five sessions, hence the high number of answers. Most of the cadets played a character in a larp three times, but some played four. According to hypothesis number 2, we would expect those who picked challenging roles to have had the greatest development. This is further inspected in the Kruskal-Wallis H test below.

A Kruskal-Wallis H test was conducted to determine if there were differences in self-reported broadening of the behavioural spectrum score (SRBBS, question 6) between four groups of cadets. In hypothesis number 2 it was hypothesised that the cadets who were positively inclined towards the larp sessions and played characters they found challenging would have the greatest development in their behavioural spectrum. To examine this closer the cadets were divided into four groups:

- a) Negatively inclined towards the sessions and played roles that were not challenging (N=16)
- b) Negatively inclined towards the sessions and played roles that were challenging (N=6)

- c) Positively inclined towards the sessions and played roles that were not challenging (N=10)
- d) Positively inclined towards the sessions and played roles that were challenging (N=28)

Distributions of SRBBS scores were similar for all groups, as assessed by visual inspection of the boxplot below. Median SRBBS scores were statistically significantly\*\*\* different between the groups,  $X^2(3) = 20,908$ ,  $p < 0,0005$ . Pairwise comparisons were performed using Dunn's procedure with a Bonferroni correction for multiple comparisons to see which groups were different from the others. This post hoc analysis revealed statistically significantly\*\*\* differences in the SRBBS-scores between group a) the cadets who were negatively inclined towards the sessions and played roles that were not challenging (Mdn = 2,50), and group d) the participants who were positively inclined towards the sessions and played roles that they found challenging (Mdn=4,00),  $p < 0,0005$ . There were not statistically significant differences between any of the other groups. This means that there was a difference between the development of the positively inclined cadets who played challenging roles and the cadets who were negatively inclined and played unchallenging roles.

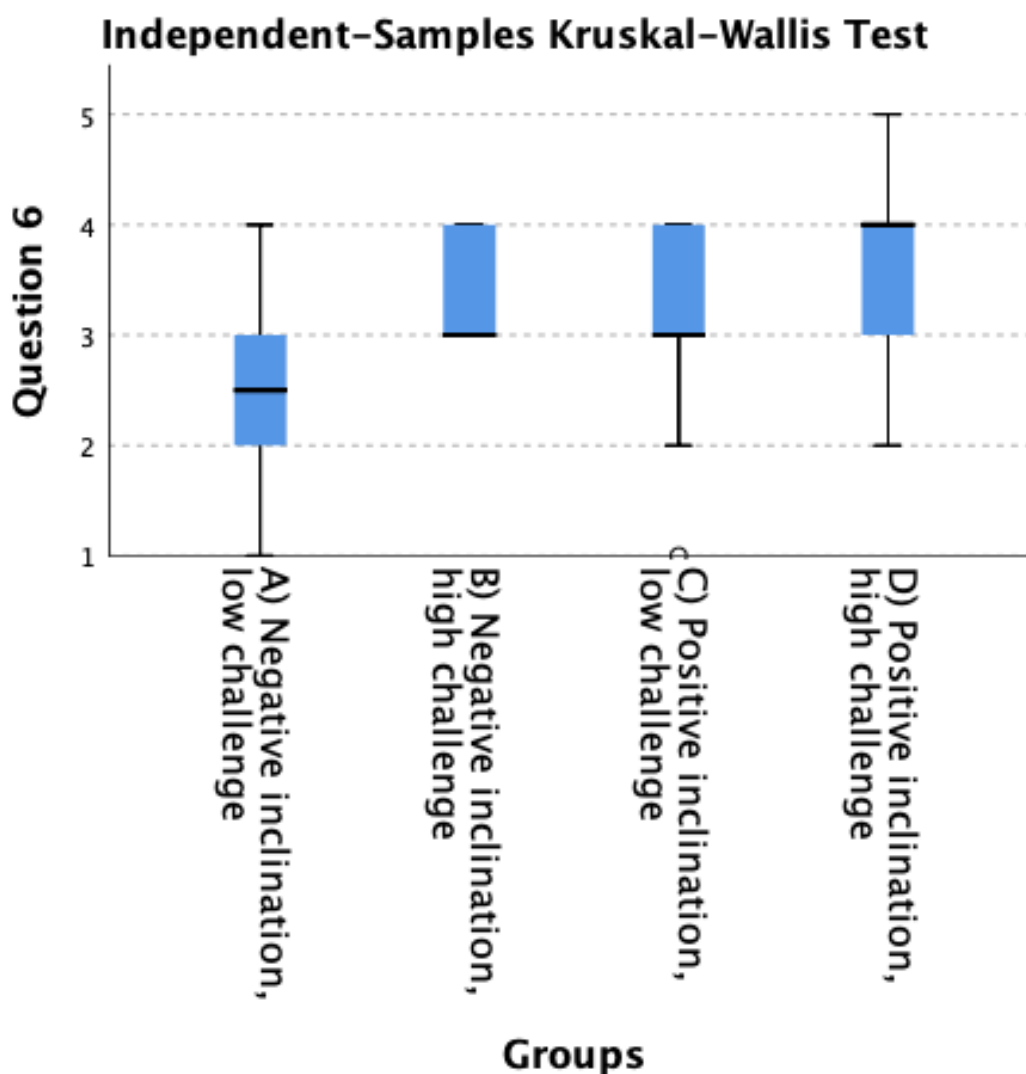


Diagram 10: Independent-Samples Kruskal-Wallis Test

### Medians and means question 6

“My spectrum of behaviours has been broadened as a consequence of my participation in the sessions”

| Groups                               | N  | Median | Mean |
|--------------------------------------|----|--------|------|
| Negative inclination, low challenge  | 16 | 2.50   | 2.44 |
| Negative inclination, high challenge | 6  | 3.00   | 3.33 |
| Positive inclination, low challenge  | 10 | 3.00   | 3.10 |
| Positive inclination, high challenge | 28 | 4.00   | 3.75 |
| Total                                | 60 | 3.00   | 3.25 |

Table 4: Scores showing development of the behavioural spectrum

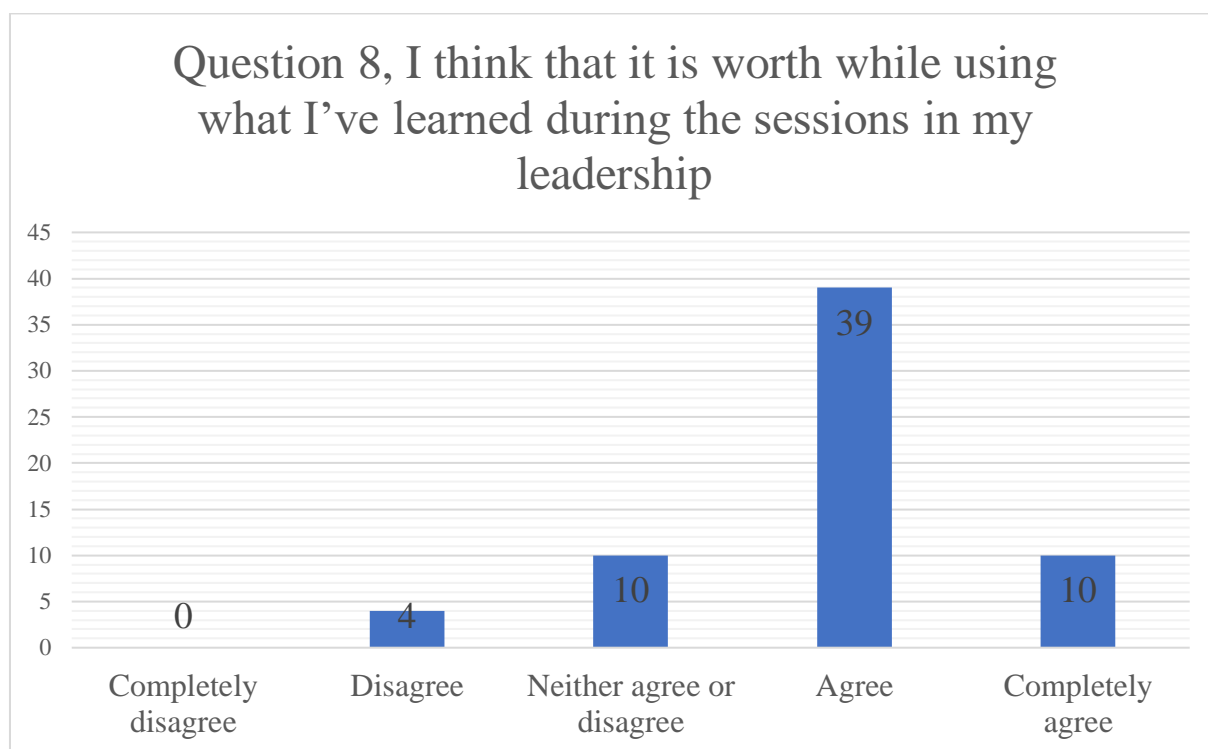


Diagram 11: Question 8, I think that it is worth while using what I've learned during the sessions in my leadership.

Next, the thesis will examine the cadets' *attitude* towards the skills and knowledge that they have acquired through the sessions. This question is connected to the cadets' habitual behaviour and goal setting. Question 8 is in many ways similar to question 3, but also addresses the cadets' attitude towards using what they learned. This point is included because sometimes people have the skills and knowledge needed to implement what they have learned, but they might not see any point in going through the trouble. An example of this is washing one's hands after using the bathroom; "everyone" knows it is important to do it avoid getting sick, but many skip the soap and hot water, or the washing all together because of deficient attitude. If the cadets in the same way do not think the reward of having the ability to be role flexible is worth the effort of learning it, they are unlikely to put in much effort into developing the skill. We find that 77,8 percent agree or completely agree that what they learned is worth using, while 15,9 percent neither agree or disagree, and 6,3 percent disagree.

### 4.3 Level 3 - behaviour

Continuing, the thesis will consider the third level in the New World Kirkpatrick model, “*The degree to which participants apply what they learned during training when they are back on the job*” (Kirkpatrick & Kirkpatrick, 2016, p. 60). According to hypothesis number 1, we would expect to see the results manifest as increased role flexibility also outside the larp sessions, if they worked as intended. This could have happened through single loop learning, as described by Argyris; by the new experiences acquired through the larps prompting them to change their behaviour to better handle similar situations in the future. It could also have occurred as a result of double loop learning, where reflective observation and abstract thinking – as described in Kolb’s interpretation of Kurt Lewin’s model for experience-based learning – has sufficiently impacted the cadet’s assumptions and beliefs to influence their behaviour.

In the case that the cadets have increased their ability to show role flexibility, we could expect to be able to observe this as a development in the z-score in the second SPGR-test compared to the first SPGR-test. A low score on the z-axis indicates passivity, while a high score indicates influence and agency within the team. A high score on the z-axis would also signify that the cadet displays the four functions nurture, control, dependence and opposition in an appropriate manner. None of the cadets had reached the desired z-value for a military officer of 8 at the first SPGR-test, and thus a favourable outcome would be if the z-score increased for all the cadets. A paired samples t-test was performed to see if there had been a development in the class of 19-22 as a whole in the time period the larp sessions were conducted.

A paired samples t-test was carried out to examine if there had been any development in the z-score of the cadet mass as a whole and to see if they had *applied what they learned during training when they are back on the job*. The results from the first SPGR-test were compared to those of the second SPGR-test after the completion of the five larp sessions. Examination of a box plot representing the scores revealed nine outliers that were more than 1,5 box-lengths from the edge of their box. After inspection of their values, it was uncovered that none of them were extreme. In order to evaluate whether the outliers had a notable effect on the analysis, a second paired-samples t-test was performed without the outliers. The results from the two tests were essentially identical, and so the outliers were kept in the analysis. The assumption of normality was not violated, as assessed by visual inspection of a Normal Q-Q Plot. The mean score on the z-axis was higher on the second SPGR-test ( $M= 0,88$ ,  $SD = 3,124$ ) than on the first



SPGR-test ( $M=0,27$ ,  $SD=3,497$ ). The difference was statistically significant\*\*\*, with a mean increase of 0,609 of the z-score, CI [0,263, 0,956],  $t(63)=3,514$ ,  $p<0,001$ ,  $d=0,44$ . This means that a statistically significant development had taken place.

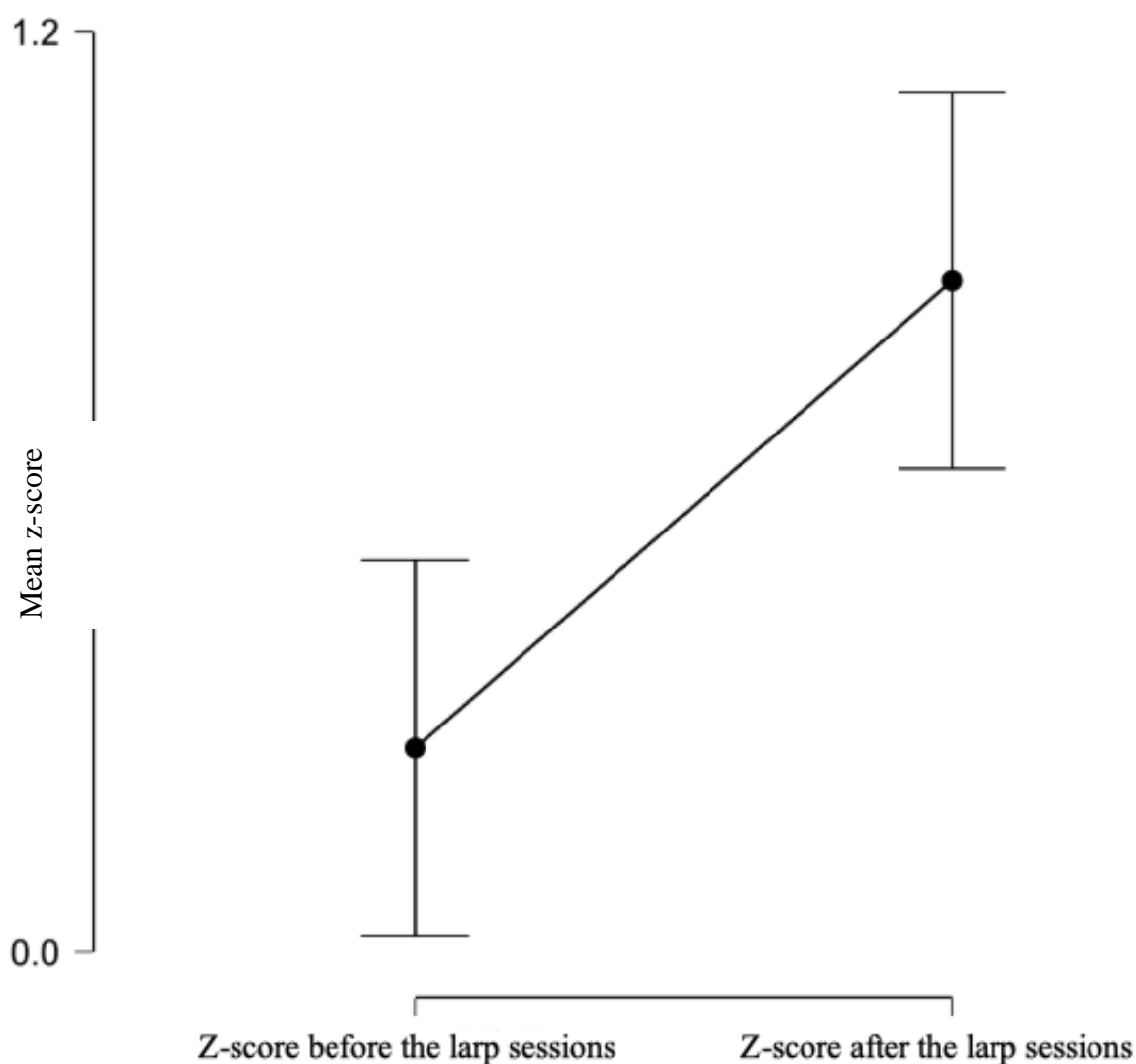


Diagram 12: Development in z-score comparing results from before and after the larp sessions

Secondly, the analysis will inspect the development of this year's class compared to the class of 18-21, that of last year. 51 of 64 cadets from the class of 18-21 consented to their results being used in this thesis. An independent samples t-test was conducted to see if there were any statistically significant differences between the classes. There was one outlier in the data, as assessed by inspection of a boxplot, it was not extreme. A second independent samples t-test was run without the outlier, and the results were essentially the same. It was decided to keep the outlier in the data. The development in the z-scores was normally distributed, as assessed by visual inspection of a Q-Q plot. There was homogeneity of variances, as assessed by Levene's

---

test for equality of variances ( $p=0,426$ ). There were not statistically significant difference (95% CI,  $-0,666-0,424$ ),  $t(114)=-0,441$ ,  $p=0,660$ , between the class of 18-21 ( $M=0,73$ ,  $SD=1,573$ ) and 19-22 ( $M=0,61$ ,  $SD=1,387$ ).

Finally, a mixed two-way ANOVA was used to examine if the development of the ability to show role flexibility differed among various groups. Their z-scores from the SPGR-tests were used as a measurement of role flexibility. Hypothesis number 2 and 3 predicted that the part of the cadet mass that was positively inclined towards the larps sessions and played characters they found challenging would show the greatest development. The cadets were divided into the same groups as in the Kruskal-Wallis H test:

- a) negatively inclined towards the sessions and played roles that were not challenging (N=16)
- b) negatively inclined towards the sessions and played roles that were challenging (N=6)
- c) Positively inclined towards the sessions and played roles that were not challenging (N=10)
- d) Positively inclined towards the sessions and played roles that were challenging (N=28)

There were no outliers, as assessed by checking that no studentized residuals were greater than  $\pm 3$  standard deviations. The data was normally distributed, as assessed by Shapiro-Wilk's test of normality ( $p>0,05$ ) and visual inspection of the Q-Q-plot. There was homogeneity of variances ( $p>0,05$ ) as assessed by Levene's test, and also homogeneity of covariances ( $p>0,05$ ) as found using Box's M test. Mauchly's test of sphericity, however, indicated that the assumption of sphericity was violated for the two-way interaction  $X^2(0)=0,00$ ,  $p<0,0005$ . The results were corrected using the Greenhouse-Geisser estimate. There was a statistically significant\* interaction between the groups and the development in the z-score from the SPGR-tests,  $F(3,56) = 2,984$ ,  $p=0,039$ , partial  $\eta^2=0,138$ .

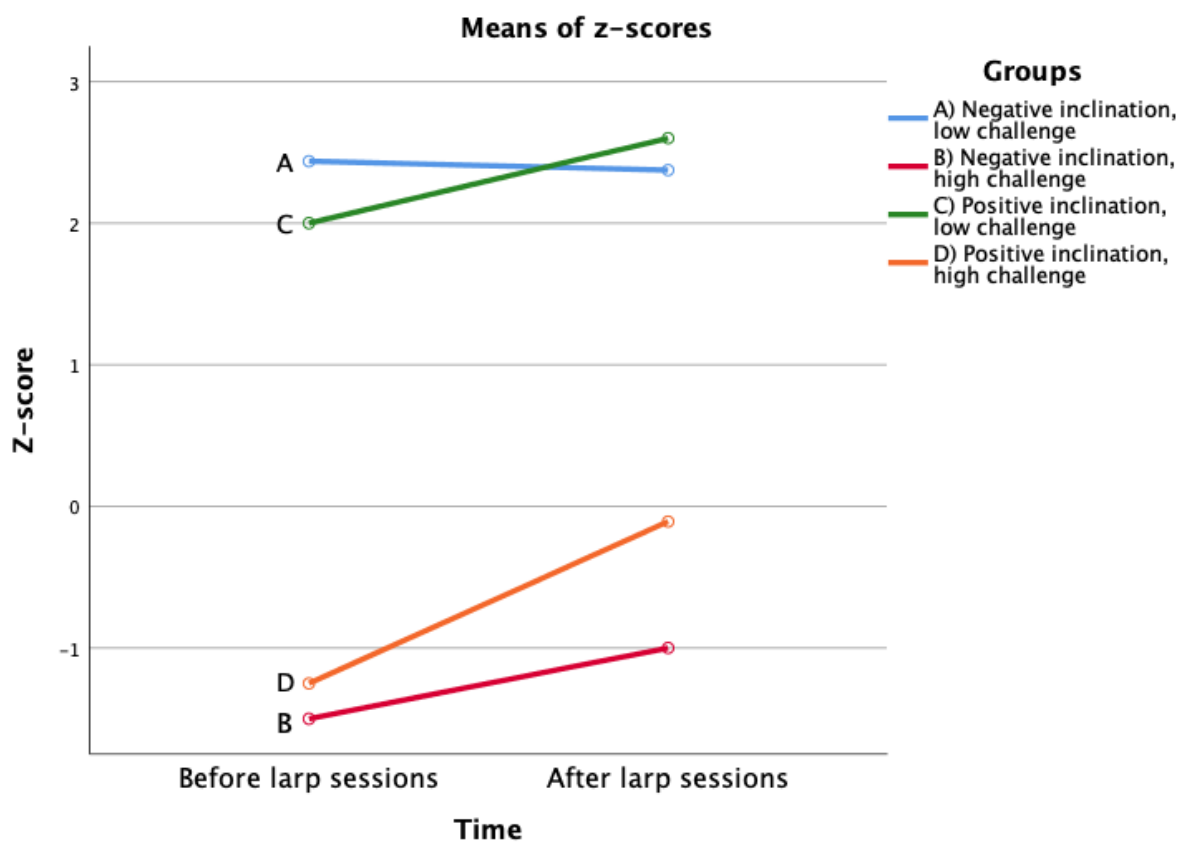


Diagram 13: Means of z-scores before and after larp sessions

## Z-scores

| Groups                                  |                | Z-scores before<br>the sessions | Z-scores after<br>the sessions | Development<br>in z-score |
|---|----------------|---------------------------------|--------------------------------|---------------------------|
| Negative inclination,<br>low challenge  | Mean           | 2.44                            | 2.38                           | -.06                      |
|   | N              | 16                              | 16                             | 16                        |
|   | Std. Deviation | 2.581                           | 2.419                          | 1.340                     |
|   | Variance       | 6.662                           | 5.850                          | 1.796                     |
| Negative inclination,<br>high challenge | Mean           | -1.50                           | -1.00                          | .50                       |
|   | N              | 6                               | 6                              | 6                         |
|   | Std. Deviation | 2.429                           | 2.098                          | .548                      |
|   | Variance       | 5.900                           | 4.400                          | .300                      |
| Positive inclination,<br>low challenge  | Mean           | 2.00                            | 2.60                           | .60                       |
|   | N              | 10                              | 10                             | 10                        |
|   | Std. Deviation | 1.944                           | 2.547                          | 1.174                     |
|   | Variance       | 3.778                           | 6.489                          | 1.378                     |
| Positive inclination,<br>high challenge | Mean           | -1.25                           | -.11                           | 1.14                      |
|   | N              | 28                              | 28                             | 28                        |
|   | Std. Deviation | 3.597                           | 3.337                          | 1.407                     |
|   | Variance       | 12.935                          | 11.136                         | 1.979                     |
| Total                                   | Mean           | .25                             | .92                            | .67                       |
|   | N              | 60                              | 60                             | 60                        |
|   | Std. Deviation | 3.448                           | 3.142                          | 1.361                     |
|   | Variance       | 11.886                          | 9.874                          | 1.853                     |

Table 5: Z-scores in the different groups.

Further examination of the simple main effects through the univariate procedure in SPSS showed a statistically significant difference in the z-scores of the groups both before,  $F(3, 56) = 6,865$ ,  $p < 0,001$ , partial  $\eta^2 = 0,269$  and after,  $F(3, 56) = 4,529$ ,  $p = 0,007$ , partial  $\eta^2 = 0,195$ , the larp sessions. The post hoc Tukey method was used to determine in which of the cases the null hypothesis was rejected.

Before the sessions, there were no statistically significant difference between group a) and c) (both low challenge,  $M = 0,44$ ,  $SE = 1,22$ ,  $p = 0,984$ ) or between b) and d) (both high challenge,  $M = -25$ ,  $SE = 0,998$ ,  $p = 0,998$ ). Between the other groups, however, there were statistically significant\* differences before the larp sessions. This divergence is illustrated in the graph

above, where group a) and c) have similar z-scores before the larps sessions, and the same for group b) and d). See the table below for more details.

### Multiple Comparisons

Dependent Variable: SPGR Z-value **before** the larp session

Tukey HSD

| (I) Groups                                 | (J) Groups                                 | Mean<br>Difference<br>(I-J) | Std.<br>Error | Sig. | 95% Confidence<br>Interval |                |
|--|--|-----------------------------|---------------|------|----------------------------|----------------|
|  |  |                             |               |      | Lower<br>Bound             | Upper<br>Bound |
| A) Negative inclination,<br>low challenge  | B) Negative inclination,<br>high challenge | 3.94*                       | 1.448         | .042 | .10                        | 7.77           |
|  | C) Positive inclination,<br>low challenge  | .44                         | 1.220         | .984 | -2.79                      | 3.67           |
|  | D) Positive inclination,<br>high challenge | 3.69*                       | .948          | .001 | 1.18                       | 6.20           |
| B) Negative inclination,<br>high challenge | A) Negative inclination,<br>low challenge  | -3.94*                      | 1.448         | .042 | -7.77                      | -.10           |
|  | C) Positive inclination,<br>low challenge  | -3.50                       | 1.562         | .125 | -7.64                      | .64            |
|  | D) Positive inclination,<br>high challenge | -.25                        | 1.361         | .998 | -3.85                      | 3.35           |
| C) Positive inclination,<br>low challenge  | A) Negative inclination,<br>low challenge  | -.44                        | 1.220         | .984 | -3.67                      | 2.79           |
|  | B) Negative inclination,<br>high challenge | 3.50                        | 1.562         | .125 | -.64                       | 7.64           |
|  | D) Positive inclination,<br>high challenge | 3.25*                       | 1.115         | .025 | .30                        | 6.20           |
| D) Positive inclination,<br>high challenge | A) Negative inclination,<br>low challenge  | -3.69*                      | .948          | .001 | -6.20                      | -1.18          |
|  | B) Negative inclination,<br>high challenge | .25                         | 1.361         | .998 | -3.35                      | 3.85           |
|  | C) Positive inclination,<br>low challenge  | -3.25*                      | 1.115         | .025 | -6.20                      | -.30           |

Based on observed means.

The error term is Mean Square(Error) = 9.155.

\*. The mean difference is significant at the .05 level.

Table 6: Multiple comparisons of SPGR z-value before the larp sessions.

After the larps sessions there was only a statistically significantly\* difference between group a) and d) ( $M= 2,48$ ,  $SE=0,907$ ,  $p=0,040$ ). This shows that the mean z-score in the different groups were closer to each other after the larps sessions than before. For more details, please refer to the table below.

### Multiple Comparisons

Dependent Variable: SPGR Z-value **after** the larps sessions

Tukey HSD

| (I) Groups                              | (J) Groups                              | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval |             |
|---|---|-----------------------|------------|------|-------------------------|-------------|
|   |   |                       |            |      | Lower Bound             | Upper Bound |
| A) Negative inclination, low challenge  | B) Negative inclination, high challenge | 3.38                  | 1.385      | .082 | -.29                    | 7.04        |
|   | C) Positive inclination, low challenge  | -.23                  | 1.166      | .997 | -3.31                   | 2.86        |
|   | D) Positive inclination, high challenge | 2.48*                 | .907       | .040 | .08                     | 4.88        |
| B) Negative inclination, high challenge | A) Negative inclination, low challenge  | -3.37                 | 1.385      | .082 | -7.04                   | .29         |
|   | C) Positive inclination, low challenge  | -3.60                 | 1.494      | .087 | -7.56                   | .36         |
|   | D) Positive inclination, high challenge | -.89                  | 1.302      | .902 | -4.34                   | 2.55        |
| C) Positive inclination, low challenge  | A) Negative inclination, low challenge  | .23                   | 1.166      | .997 | -2.86                   | 3.31        |
|   | B) Negative inclination, high challenge | 3.60                  | 1.494      | .087 | -.36                    | 7.56        |
|   | D) Positive inclination, high challenge | 2.71                  | 1.066      | .065 | -.12                    | 5.53        |
| D) Positive inclination, high challenge | A) Negative inclination, low challenge  | -2.48*                | .907       | .040 | -4.88                   | -.08        |
|   | B) Negative inclination, high challenge | .89                   | 1.302      | .902 | -2.55                   | 4.34        |
|   | C) Positive inclination, low challenge  | -2.71                 | 1.066      | .065 | -5.53                   | .12         |

Based on observed means.

The error term is Mean Square(Error) = 8.372.

\*. The mean difference is significant at the .05 level.

Table 7: Multiple comparisons of SPGR z-value after the larps sessions.

A general linear model procedure in SPSS for the simple main effects of time showed that group b), c) and d) saw a positive development in the z-score. Only group d), the positively inclined and challenged cadets, saw a statistically significant\*\*\* effect of time on the z-score,  $F(1, 27)=18,481$ ,  $p<0,0005$ , partial  $\eta^2=0,406$ . The mean scores and developments are illustrated by graph and with yellow cells in table 5 above, a)  $M=-0,06$ , b)  $M=0,50$ , c)  $M=0,60$  and d)  $M=1,14$ .

#### 4.4 Level 4 – Results

The final level the thesis will regard at is number four in the Kirkpatrick Model. This level is explained as “*the degree to which targeted outcomes occur as a result of the training and the support and the accountability package*” (Kirkpatrick & Kirkpatrick, 2016, p. 71). Kirkpatrick argues that training only truly is beneficial to an organization if it contributes to the organizations main goal. In the case of the larp sessions, level 4 would have been reached if the cadets have become more role flexible, and this contributes to robust teams capable of handling complex situations on board the ships, which in turn would strengthen the defence of our country. As the results of the larp sessions not truly will manifest themselves until at least two years have passed, and the cadets have begun their work in the navy, this will not receive a big focus in this thesis. However, it will consider the cadets’ expectations for the future, as expressed in question 9.

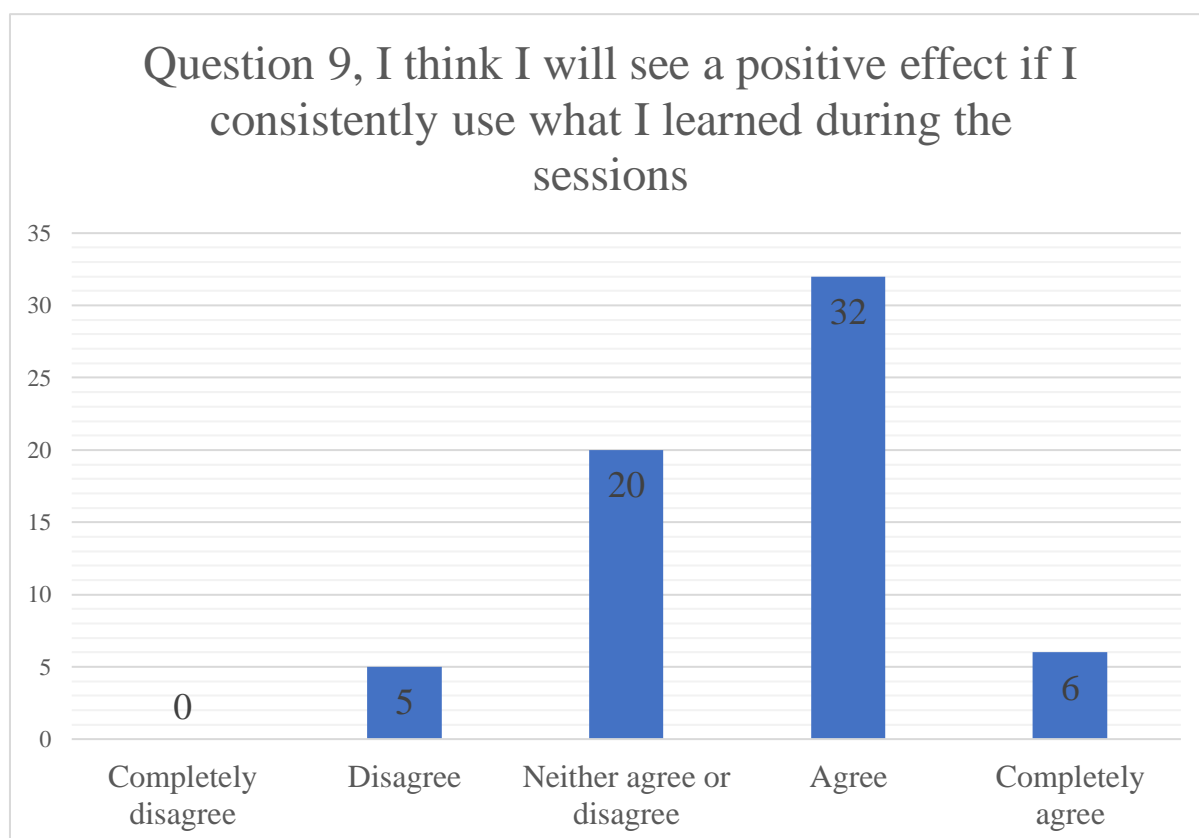


Diagram 14: Question 9, I think I will see a positive effect if I consistently use what I learned during the sessions.



Question 9 reveals that 38 cadets, 60,3 percent, completely agree or agree that they will see a positive effect if they consistently use what they have learned, 20 cadets, 31,7 percent neither agree or disagree, while 5 cadets, 7,9 percent disagree. This shows that the majority of the cadets think what they learned will have a positive effect if they continue to use it.

## 5. Discussion

In the discussion the thesis will seek to answer the research question and the hypotheses. The discussion will progress by first addressing each of the hypotheses. Next, the difference in the groups based on how challenged the cadets felt by their roles will be discussed. Finally, the research question will be answered, and the implications for the RNNA discussed.

### Hypothesis number 1

First, the discussion will look at hypothesis number 1 “The cadets will become more role flexible after completing five larp sessions”. The paired-samples t-test revealed a statistically significant\*\*\* development in the z-score of the cadet mass as a whole, with a mean development of 0,609 of the z-score. This shows a general positive trend in the class of 19-22, where the cadets moved from a mean z-value of 0,25 to 0,92. It could be argued that this shows that the larp sessions have increased the cadets’ ability to show role flexibility, and that hypothesis number 1 should be accepted. However, it could be that this development would have happened without the larps sessions as a result of the other training on board. To put the results into perspective, we have to compare them to the results of the non-equivalent control group; the class of 18-21. An independent samples t-test did not yield any significant difference in the development of the z-score in the class of 19-22 (M=0,61) compared to that of 18-21(M=0,73), showing a mean difference of 0,12. This could indicate that the larp sessions had little or no influence on the class as a whole, and that hypothesis number 1 should be rejected.

Nevertheless, this cannot be concluded with certainty. There are several examples of previous classes where development has differed greatly, in spite of seemingly similar frameworks (Nissestad, 2007). We must also take into account that the comparisons group was inequivalent, meaning that there were differences between the class of 19-22 and 18-21. For instance, due to the education reform, it is highly likely that there would have been some adjustments to the cadets’ education this year compared to last year, and so both their training on board and their backgrounds would have differed somewhat. A recent change in the recruitment policy of the RNNA has altered the target group for recruitment from an experienced audience with previous experience from the military, to young men and women straight from high school. It could have been that the class of 19-22 (Mean age 20,7 years at admission at the RNNA) had a younger and less experienced base of cadets than that of 18-21(Mean age 21,3 years at admission).

However, this difference amounted to only half a year. Other factors on board such as the counselors, the teachers, the weather and academic requirements are also likely to have impacted the development of the classes in various ways. With this in mind, we must consider that hypothesis number 1 could still be accepted.

Another consideration the discussion will draw attention to is that the SPGR-tests measured the development of the cadets during the entire period between the tests. Even though the larp sessions came between these, it is important to keep in mind that the leadership training on board went far beyond the larp sessions, and it is unlikely that all of the progress can be attributed to the larp sessions. The questionnaire addressed this challenge by asking specifically about the cadets' development due to the larp sessions. 26 of the cadets reported that they agreed or completely agreed that their spectrum of behaviours had been broadened as a result of participating in the sessions (question 6). This constitutes 40,6 percent of the total cadet mass. 42 of the cadets agreed or completely agreed that their ability to observe the other cadets had been improved as a result of their participation in the larp sessions(question 5). This number amounts to 65,6 percent of the cadet mass. These numbers indicates that hypothesis number 1 should be partially accepted.

To sum up the discussion on hypothesis number 1, "The cadets will become more role flexible after completing five larp sessions", we see that the cadet mass of 19-22 as a whole has had a positive development. However, this did not differ statistically significantly from the development of the class of 18-21. This was not enough to reject the hypothesis completely, as great differences have been seen between classes before, in spite of seemingly similar frameworks. Many of the cadets reported that the larp sessions had helped them develop their spectra of behaviours and ability to observe other cadets. Considering all this, we can conclude that hypothesis number 1 should be partially accepted.

## **Hypothesis number 2**

Secondly, the thesis will discuss hypothesis number 2, "The cadets who are positively inclined towards the larp sessions and choose to play characters that challenge them will have the greatest development in their spectrum of behaviours". Since motivation and a positive attitude towards a way of learning are important factors for learning to take place, we would expect the cadets who were positively inclined towards the larp sessions to have learned the most. To

---

challenge oneself and go outside one's comfort zone are listed as important factors in developing one's behavioural spectrum (Sjøvold, 2014). Because of this, it was predicted that the cadets who played characters that challenged them would have reported the highest development in the behavioural spectrum. A Kruskal-Wallis H test confirmed that there was a statistically significant difference in the self-reported development between the cadets who were negatively inclined and played unchallenging roles (Mdn=2,50) and the cadets who were positively inclined and played characters they found challenging (Mdn=4,00). This suggests that hypothesis number 2 should be accepted.

On the other hand, the results have some weaknesses, such as the fact that they only compare opinions on the cadets' development, and not any test results that measure actual ability. Furthermore, the development was self-reported, and subsequently the responses are likely influenced by personal biases. Still, the requirement of going outside one's comfort zone to develop the ability to show role flexibility is fulfilled, and so it could be argued that the results are plausible. The results need further examination through comparisons with the findings from the SPGR-tests.

The analysis also examined the development of the cadets as reported by their peers through the SPGR-test, as opposed to the self-reported development addressed above. The z-score measured role flexibility as a whole and included both the ability to read situations and having a wide behavioural spectrum. A point that substantiates the validity of the results from the questionnaire is that they are consistent with the distribution of development from the SPGR-tests. The mean and median agreement with the statement "my spectrum of behaviours has been widened as a result of my participation in the larp sessions" was slightly negative for group a), approximately neutral for group b) and c), and positive for group d). The change in the mean z-score for the same groups were -0,06 for group a), 0,50 for group b), 0,60 for group c), and 1,14 for group d). These results indicate that hypothesis number 2 should be accepted.

Nonetheless, there is a weakness to the mixed two-way ANOVA test that must be addressed. This is the assumption that cases need to be *unrelated* in order to use the test. In this case, the assumption was met to the extent that none of the cadets were classified to be in more than one of the groups (a, b, c or d). However, the cadets will inevitably have had an effect on each other on board the ship, living as close as they did. It is likely that they have influenced one another's inclinations towards the sessions, making the cases related. Due to the nature of the sail, this

---

effect was inevitable. On one hand the setting on board the ship eliminated many other factors that could have impacted the results in a less isolated location, but on the other, it made having completely unrelated groups impossible, including having an effective control group on board. In spite of this, the test is considered to be valid in the sense that all the cadets went through the same sessions, and that the groups used in the mixed two-way ANOVA were created based on their responses in the questionnaire afterwards.

In summary, hypothesis number 2, “The cadets who are positively inclined towards the larp sessions and choose to play characters that challenge them will have the greatest development in their spectrum of behaviours” appears to be correct, based on a Kruskal-Wallis H test which confirmed that there was a statistically significant difference in the self-reported development between the cadets who were positively inclined and played challenging roles and the cadets who were negatively inclined and played unchallenging roles. These findings were consistent with the findings from the mixed two-way ANOVA comparing the SPGR-results. In spite of the fact that the tests had some weaknesses, it can be concluded with reasonable certainty that hypothesis number 2 should be accepted.

### **Hypothesis number 3**

Thirdly, the discussion will consider hypothesis number 3, “The cadets who are positively inclined towards the larp sessions will have the greatest development in their ability to observe situations and select an appropriate behaviour”. Based on logical deduction, it was predicted that the participants who were motivated would pay more attention during the sessions and continue their reflection also after the sessions, thus completing a double looped learning cycle. The Mann-Whitney U test showed statistically significantly\*\* higher self-reported observation development scores in the positively inclined cadets(Mdn= 4,00) compared to the negatively inclined cadets(Mdn=3,50). This suggests that hypothesis number 3 should be accepted.

On the other hand, the results have similar weaknesses as the self-reported development in the behavioural spectrum. These include that the test only compares opinions on the cadets’ development, and not any test results that measure actual ability. In addition to this, the results are possibly influenced by personal biases and the expectation that the larp sessions would help them develop. Still, the logical deduction that the cadets who favour such a learning situation

would develop more is in line with the results, and so it could be argued that the results are plausible.

In short, it is hard to measure accurately how much the cadets developed their ability to observe other cadets and read situations. However, based on the self-reports made by the cadets, it seems plausible that hypothesis number 3 should be accepted.

### **The cadets with the lowest z-scores before the sessions also felt most challenged**

A final point that needs to be included in the discussion is the gap in the z-scores between the groups that felt challenged by the characters they played, and the cadets who did not. From graph 5 showing a visual representation of the results from the mixed two-way ANOVA, we can clearly see that two and two of the groups have starting points that are close together. The analysis discovered that the groups with the same level of challenge had similar z-scores before the larp sessions, while there were statistically significant differences between the other groups. This gives rise to the suspicion that what roles they choose to play in the larps might not be the only factor deciding how challenging they would find the characters. One possibility is that the cadets who have reached a certain level of role flexibility are past the stage where the relatively simple characters used in these larp sessions are considered challenging. It could also be that simply practising observation and different roles is no longer helpful at a certain stage, and that they need some other stimuli or training to develop further.

On the other hand, it is also possible that the teams prioritized the members that needed development the most and let them have the roles they needed to practice. This could have left the most developed members with unchallenging roles. As there was a limited number of characters, it was observed several times that some cadets had to play the “leftover roles”, even though they wished to practise some other aspect of their role flexibility. Even so, it seems unlikely that this is the only cause for such a statistically significant difference.

Regardless of the cause, the larp sessions seem to have been most beneficial to the cadets with low z-scores to begin with. After the larp sessions, there was a smaller discrepancy in the mean scores between the groups, indicating that the larp sessions had helped raise the cadets who struggled the most with being role flexible from the start. In addition to representing a poor ability to show role flexibility, a low z-score indicates scant influence in the team, which makes

---

it harder for these cadets to challenge the status quo and stand up to the social pressure in the first place. This makes it plausible that the cadets with low z-scores would benefit the most from the larp sessions where the social pressures and expectations are reduced. Furthermore, the theory argues that larps can be used to help raise self-efficacy, and it is likely that they will have benefitted from the larp sessions in this way as well (Bowman, 2014a).

### **Can the use of larps be beneficial in the leadership training at the RNNA?**

The last part of the discussion addresses the research question, “Can the use of live action role plays (larps) be beneficial in the leadership training at the RNNA?”. The results from this thesis showed that the larp sessions ran with the class of 19-22 in their current form most likely not had any effect that was statistically significantly on the class as a whole, compared to the class of 18-21. However, the results indicate that the larps sessions had a positive effect on some cadets, especially those who were positively inclined towards the larp sessions and who played characters that they found challenging. The larp sessions seems to have been most beneficial for the cadets who had a low z-score prior to the session.

Taking the Nordic ideal of a z-score of 5, and the ideal for an officer of 8 into account, it is clear that the RNNA has a long way to go with its young cadets before they reach their goal. With a mean z-value of 0,27 at the first SPGR-test and 0,88 at the second SPGR-test, they are on the right path, and hopefully they will be able to develop further in the remaining two and a half years before they graduate. If the larp sessions are to be beneficial to develop the role flexibility of cadets with higher z-scores, it appears as though adjustments are needed. However, it can be argued that at this point of their training, a sufficiently high number of cadets have low enough scores for the larp sessions to be a useful tool.

In addition to this, the responses to question 1, “I would recommend the sessions to another cadet if asked” should be taken into account. 78,1 percent of the cadets were generally positive to the sessions and would probably or definitely recommend them to another cadet if asked. This shows that a large part of the cadet mass found the larp sessions beneficial to their training. Though this thesis mainly explores the effects the larp sessions had on role flexibility, many other benefits, such as gaining a better understanding of the spin theory, acquiring new perspectives and achieving a greater understanding of group dynamics were reported in the

questionnaire. It should therefore be considered that several other benefits from the larp sessions are plausible.

With this in mind, I would like to conclude that, **yes, the use of larps can be beneficial in the leadership training at the RNNA.**

### **Implications for the leadership education at the RNNA**

Considering the results, I would recommend keeping the sessions in the training program of the first year cadets next year as well, though with some adjustments based on the findings and the feedback from the cadets:

1. Create five different scenarios instead of replaying two of them. This is likely to increase the interest and thus the learning trade-off. Even though having the element of recognizability can be an advantage - in the sense that the participants know what to look for and mimic - this could also be achieved by changing the scenario yet keeping the characters similar.
2. Increase the number of characters to choose from in each scenario. This would allow more of cadets to choose roles they find challenging. Though it will likely make the scenario and the dynamics that will arise more unpredictable, it is possible to experiment to find the best solution. One cadet expressed it like this “It was rewarding because it broke the ice to new behaviours in the group. It was not as giving when someone got a role [character] that they already mastered because of the [limited] remaining roles to choose from”.
3. Considering using more time on each scenario to include subject matter learning as well. For example, this could be achieved through a scenario where they have to lead an operation, while still playing the characters. However, this is not advised unless more time is prioritized for each scenario, as it becomes increasingly difficult to stay in character with short preparation time if the scenario in itself is demanding. One cadet expressed the following, “It was a good introduction. To achieve a greater trade-off, I think the sessions need to be longer, and take place in a less hectic time period than onboard the SL”.



I would also recommend further research on the effect of the larp sessions after the adjustments have been made, in order to maximize the learning outcome for as many cadets as possible.

## 6. Conclusion

The aim of this thesis was to examine the research question “*How can the use of larps be beneficial in the leadership training at the RNNA*”. Three hypotheses were derived by logical deduction, using the theory presented above, personal experience from the RNNA and previous experience with the use of larps. The hypotheses were tested using a quasi-experiment with a pre-test post-test comparison-group design and a non-equivalent control-group. Empirical data was collected through observation, a questionnaire and SPGR-tests, and analysed. The findings were then discussed, leading to this conclusion.

Based on the findings, hypothesis number 1 should be partially accepted, in the sense that the larp sessions helped certain groups of cadets develop their role flexibility. Furthermore, hypothesis number 2 and 3 should be accepted, as the results showed that the greatest development in role flexibility happened in the cadets who felt challenged by the roles they played and who were positively inclined towards the larp sessions. The majority of the cadets would recommend the larp sessions to another cadet if asked. With this in mind, the answer to the research is: yes, the use of larp can be beneficial in the leadership development at the RNNA. This is especially true for the cadets who struggle with role flexibility to begin with. With adjustments in accordance with the recommendations in the discussion, it is my belief that it is possible to reach an even bigger part of the cadet mass and give them a meaningful learning outcome.

My recommendation for future research is that the RNNA continues to investigate ways to enhance the cadets’ role flexibility and leadership skills. A good place to start is to run the larp sessions next year as well with the recommended adjustments to see if the desired results are obtained. I would also recommend experimenting with larps and role plays in other subjects as well, for example as a practical approach to international humanitarian law, English, bridge resource management (BRM) and operations and tactics.

## Reference List

- Balzac, Stephen R. Balzac. (2011). *The use of structured goal setting in simulation design*. Journal of Interactive Drama, vol. 4.1, 51-58.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman.
- Bjørndal, C. R. P. (2002). *Det vurderende øyet observasjon, vurdering og utvikling i undervisning og veiledning*. Gyldendal akademisk.
- Boe, Ole. (2016). *Character strengths and its relevance for military officers*. Lesehefte, Forsvarets Høgskole.
- Bowman, S. L. (2014a). *Educational Live Action Role-playing Games: A Secondary Literature Review*. In The Wyrd Con Companion Book 2014.
- Bowman, S. L. (2014b). *The Wyrd Con Companion Book 2014*. Wyrd Con under Creative Commons License.
- Clausewitz, C. von. (2010). *On war. Vol. I Vol. I*. Floating Press.  
<http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=350491>
- De nasjonale forskningsetiske komiteene. (2016). *Forskningsetiske retningslinjer for samfunnsvitenskap, humaniora, juss og teologi*. Acquired 24.03.20 from <https://www.etikkom.no/forskningsetiske-retningslinjer/Samfunnsvitenskap-jus-og-humaniora/>
- Eriksen, J. (2017). *Krise- og beredskapsledelse teamtrening*. Cappelen Damm akademisk.
- Forsvaret. (2012) *Forsvarssjefens grunnsyn på ledelse i Forsvaret*.
- Guthrie, G. (2012). *Basic research methods: An entry to social science research*. SAGE Publications.
- Harder, Sanne. (2007). *Confessions of a schoolteacher: experiences with roleplaying in education*. In Donnis, Jesper, Gade, Morten & Thorup, Line(eds.), *Lifelike* (p. 228-235). Copenhagen: Prosjektgruppen KP07, Landsforeningen for Levende Rollespill
- Hoge, Mark. (2013). *Experiential Learning for Youth Through Larps and RPGs*. In Bowman, Sarah Lynne & Vanek, Aaron(eds.), *The Wyrd Con Companion Book 2013* (p. 49-51), Creative Commons
- Hyltoft, Malik. (2010). *Four Reasons Why Edu-larp Works*. In Dombrowski, Karsten (eds.), *LARP: Einblicke* (p. 43-57). Braunschweig: Zauberfeder Ltd.
- Kaiser, H. F. (1974). *An index of factorial simplicity*. Psychometrika, 39, 32-36.

- Kirkpatrick, J. D., & Kirkpatrick, W. K. (2016). *Kirkpatrick's four levels of training evaluation*. ATD Press.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.
- Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development*. From 21.06.20  
<https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1600830>
- Kot I. Yaraslau. (2012). *Educational Larp: topics for Consideration*. In Bowman, Sarah Lynne & Vanek, Aaron (eds.), *The Wyrd Con Companion Book 2012* (p.116-125). Creative Commons.
- Levenson, R. W., & Ruef, A. M. (1992). *Empathy: A physiological substrate*. *Journal of Personality and Social Psychology*, 63(2), 234–246. <https://doi.org/10.1037/0022-3514.63.2.234>
- Lindholm, M., Sverige, & Försvarsmakten. (2006). *Pedagogiska grunder*. Försvarsmakten.
- Marsh, T. (2005). *Vicarious experience: Staying there connected with and through our own other characters*. From 21.06.20  
[https://www.researchgate.net/publication/228392433\\_Vicarious\\_experience\\_Staying\\_t\\_here\\_connected\\_with\\_and\\_through\\_our\\_own\\_and\\_other\\_characters](https://www.researchgate.net/publication/228392433_Vicarious_experience_Staying_t_here_connected_with_and_through_our_own_and_other_characters)
- Myers, J. L., Well, A., & Lorch, R. F. (2010). *Research design and statistical analysis* (3. ed). Routledge.
- Nissestad, O. A. & Espevik, R. (2004). *Sjøkrigsskolens SPGR arbeidsbok*. Sjøkrigsskolen.
- Nissestad, Odd Arne. (2007). *Leadership development: An empirical study of effectiveness of the leadership development program at The Royal Norwegian Naval Academy and its impact on preparing officers to execute leadership in today's conflicts and the conflicts in the years ahead* (Doctoral dissertation, Norges Handelshøyskole). From 21.06.20 <https://fhs.brage.unit.no/fhs-xmlui/bitstream/handle/11250/2449975/Nissestad.pdf?sequence=1&isAllowed=y>
- Peterson, K., & Kolb, D. A. (2017). *How you learn is how you live: Using nine ways of learning to transform your life*. Berrett-Koehler Publishers, Inc.
- Richards, C. W. (2004). *Certain to win: The strategy of John Boyd, applied to business*. Xlibris.
- Sandvik, K., Wade, A. M., & Sørense, A. S. (2006). *Rollespil: - I æstetisk, pædagogisk og kulturelt perspektiv*. Aarhus University Press. <http://site.ebrary.com/id/10171131>

- 
- Shook, J. R. (2000). *Dewey's empirical theory of knowledge and reality* (1st ed). Vanderbilt University Press.
- Sjøvold, E. (2006). *Teamet*. Universitetsforl.
- Sjøvold, E. (2007). *Systematizing Person-Group Relations (SPGR): A Field Theory of Social Interaction*. *Small Group Research*, 38(5), 615–635.  
<https://doi.org/10.1177/1046496407304334>
- Sjøvold, E. (2014). *Resultater gjennom team*. Universitetsforl.
- Stark, L. (2012). *Leaving mundania: Inside the transformative world of live action role-playing games*. Chicago Review Press.
- Stern, T. (2014). *What Is Good Action Research? Considerations About Quality Criteria*. In: T. Stern, A. Townsend, F. Rauch & A. Schuster (Eds.), *Action Research, Innovation and Change: International perspectives across disciplines*. London, UK: Routledge.
- Sverige, & Försvarsmakten. (2000). *Pedagogiska grunder*. Försvarsmakten.
- Volet, S., & Järvelä, S. (Eds.). (2001). *Motivation in learning contexts: Theoretical advances and methodological implications* (1. ed). Pergamon.
- Østerskov Efterskole. (Undated). *Undervisningen på Østerskov*. Acquired 25.04.20 from <https://osterskov.dk/undervisningen/undervisningen-paa-oesterskov/>

## **Appendices**

Appendix A – Agreement of publication

Appendix B – The questionnaire

Appendix C – Question 1

---

## Appendix A

### **Agreement on publication**

#### **Agreement on electronical publication of bachelor thesis**

##### **Copy rights**

The cadet owns all copy rights to the thesis, including the rights to publish it.

##### **Approval of publication**

I hereby allow the Royal Naval Academy to publish this thesis electronically, free and without costs

##### **Plagiarism declaration**

I hereby declare that the thesis is my own work and that I have used correct references.

I hereby declare that I have not received other help than that declared in the thesis.

I am aware that violations to the abovementioned will result in the thesis being rejected.

**21.06.2020, Bergen**

Maria Kolseth Jensen

\_\_\_\_\_  
Cadet name

\_\_\_\_\_  
Cadet, signature

## Appendix B

The questionnaire filled in by the cadets after completion of the larp sessions

This questionnaire was filled in by the cadets after having completed all five larp sessions. It was written and filled in in the cadets' mother tongue, Norwegian.



# Bruk av rollespill i lederutvikling ved Sjøkrigsskolen

- Spørreundersøkelse etter gjennomføringen av alle tre rollespill -

Fyll inn din kode: \_\_\_\_\_

*Kryss av for det alternativet som passer best med din oppfatning, kommenter utfyllende der det er plass til det. Med «opplegget» menes alle 5 gjennomføringer, fra start til slutt på 1 time og 10 min. Dersom du trenger mer plass kan du skrive på baksiden av arket, husk nummerering!*

1. Hvor mange ganger deltok du i selve rollespillet i løpet av de 5 gjennomføringene?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
|   |   |   |   |   |

2. Hvor mange ganger var du en observatør i løpet av de 5 gjennomføringene?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
|   |   |   |   |   |

3. Det jeg lærte under opplegget vil hjelpe meg som leder i fremtiden

| Definitivt nei | Trolig nei | Trolig ja | Definitivt ja |
|----------------|------------|-----------|---------------|
|                |            |           |               |

4. Min evne til å observere mine medkadetter ombord er blitt bedre som en følge av min deltagelse på opplegget

| Helt uenig | Uenig | Verken eller | Enig | Helt enig |
|------------|-------|--------------|------|-----------|
|            |       |              |      |           |

5. Mitt adferdsspekter har blitt utvidet som en følge av min deltagelse på opplegget

| Helt uenig | Uenig | Verken eller | Enig | Helt enig |
|------------|-------|--------------|------|-----------|
|            |       |              |      |           |

6. Oplegget holdt interessen min:

| Ingen del av tiden | En fjerdedel av tiden | Halvparten av tiden | Tre fjerdedeler av tiden | Hele tiden |
|--------------------|-----------------------|---------------------|--------------------------|------------|
|                    |                       |                     |                          |            |

Kommentar:

7. Rollene jeg spilte utfordret meg på områder jeg ønsket å utvikle (fyll ut i henhold til hvor mange rollespill du spilte i. Spilte du f. eks i 3 rollespill, fyller du ut for rolle 1, 2 og 3):

|         | Ingen del av tiden | Lite av tiden | Halvparten av tiden | Mesteparten av tiden | Hele tiden | Husker ikke |
|---------|--------------------|---------------|---------------------|----------------------|------------|-------------|
| Rolle 1 |                    |               |                     |                      |            |             |
| Rolle 2 |                    |               |                     |                      |            |             |
| Rolle 3 |                    |               |                     |                      |            |             |
| Rolle 4 |                    |               |                     |                      |            |             |
| Rolle 5 |                    |               |                     |                      |            |             |

8. Var opplegget en givende måte å lære på? Hvorfor eller hvorfor ikke?

9. Var det noe ved læringssituasjonen som etter din mening forstyrret læringen? Hvis ja, hva? Kryss av på så mange som nødvendig

- Nei
- Ja, sjøsyke
- Ja, for lite søvn i forkant
- Ja, forhold ved rommet, som luft, lys, plass etc
- Ja, noe annet, utdyp her:

10. Hvilken del av opplegget synes du var mest relevant for din lederutvikling?

11. Var det noen deler av opplegget som var mindre relevant?

12. Jeg vil anbefale opplegget til mine medkadetter hvis jeg blir spurt

| Definitivt nei | Trolig nei | Trolig ja | Definitivt ja |
|----------------|------------|-----------|---------------|
|                |            |           |               |

13. Jeg mener at det er verdt å bruke det jeg har lært i løpet av opplegget i lederskapet mitt

| Helt uenig | Uenig | Verken eller | Enig | Helt enig |
|------------|-------|--------------|------|-----------|
|            |       |              |      |           |

14. Jeg føler meg sikker nok på det jeg har lært i løpet av opplegget til å kunne bruke det i min ledelse

| Helt uenig | Uenig | Verken eller | Enig | Helt enig |
|------------|-------|--------------|------|-----------|
|            |       |              |      |           |

15. Jeg forventer at medkadettene i laget mitt vil gi meg den støtten jeg trenger for å implementere det jeg har lært

| Definitivt nei | Trolig nei | Trolig ja | Definitivt ja |
|----------------|------------|-----------|---------------|
|                |            |           |               |

Kommentar:

16. Hvilke barrierer forventer du kan komme i veien for å bruke det du har lært i løpet av opplegget?

17. Jeg føler forpliktelse til å bruke det jeg har lært i løpet av opplegget i min ledelse

| Helt uenig | Uenig | Verken eller | Enig | Helt enig |
|------------|-------|--------------|------|-----------|
|            |       |              |      |           |

18. Jeg tror jeg vil se en positiv virkning hvis jeg konsistent bruker det jeg har lært i løpet av opplegget

| Helt uenig | Uenig | Verken eller | Enig | Helt enig |
|------------|-------|--------------|------|-----------|
|            |       |              |      |           |

19. Hvilket spesifikt resultat håper du å se som en følge av innsatsen din med å implementere det du har lært under opplegget?
20. Hva har du lært om deg selv gjennom opplegget?
21. Har du allerede brukt noe av det du lærte igjennom opplegget? I så fall; hva har du brukt, og hvordan? (For eksempel rolleflexibilitet, konkret adferd du øvde på i rollespillet, observasjon av andre, oppgaveskriving, avklaring av status, osv...)
22. Hva er dine forslag til hvordan opplegget kan forbedres?
23. Har du noen avsluttende kommentarer som spørsmålene over ikke dekker?

## Appendix C

### The responses to question 1 in the questionnaire

The responses to question 1 in the questionnaire are listed below. The replies are cited directly from the questionnaire. Because the respondents answered in their mother tongue, Norwegian, they are recited in this language below.

Were the sessions a rewarding way to learn? Why or why not?

1= Yes

2= No

3= Ambiguous answer

| <b>Respondent number</b> | <b>Answer</b> | <b>Written response</b>  |
|--------------------------|---------------|--|
| 1                        | 3             | Det var interessant å se hvordan ulike atferder reagerte på hverandre  |
| 2                        | 1             | Ja, fordi man fikk se hvordan forskjellig type adferd fungerer på andre  |
| 3                        | 1             | Ja, men det ble brukt utrolig mye tid i forhold til hvor mye som ble lært  |
| 4                        | 3             | Man får se hvilken type atferd man selv eller med-kadetter bør vise mer av, men vanskelig å implementere i hverdagssituasjon                             |
| 5                        | 3             | Det var givende fordi det brøt isen til ny adferd i gruppen. Ikke like givende når noen fikk en rolle de egentlig mestret på grunn av utvalget av roller |
| 6                        | 1             | Ja, man fikk kommentarer på atferd som burde vises mer   |
| 7                        | 3             | Trygg og fin arena til å prøve ut atferd   |
| 8                        | 1             | Ja, trygge rammer med liten konsekvens på utsiden av rollespillet gjør det lettere for deltakerne å gå ut av sin «rolle» og teste andre atferdstendenser |

|    |   |  |
|----|---|--|
| 9  | 3 | I begynnelsen var det interessant. Føler litt av utbyttet forsvant for den gruppen som hadde gjennomføring nr. 2 av samme case/når man fikk samme «rolle» flere ganger                 |
| 10 | 3 | Det var spennende i starten, men føler ikke jeg sitter igjen med så mye  |
| 11 | 1 | Ja, var en god måte til å oppleve og forstå SPGR atferd  |
| 12 | 3 | Til en viss grad – får prøvd ut ulike måter å håndtere situasjoner på  |
| 13 | 1 | Ja, åpnet synspunkt for hvordan man kan reagere på adferd  |
| 14 | 3 | Det ga et bedre forståelse over hvordan ulike personer kan påvirke en gruppe. Man fikk på en måte et større overblikk  |
| 15 | 1 | Ja, det var veldig grei å få se noen eksempler på alle disse atferdene vi leser så mye om. At det var praktisk.  |
| 16 | 1 | Ja, ble litt kjedelig, mer var å sid gjere   |
| 17 | 3 | Det var givende etter første gjennomføring, men opplegget ble for langdrøyt og dermed dabbet engasjementet mitt  |
| 18 | 3 | Litt givende. Ufarliggjorde uvant atferd   |
| 19 | 1 | Det var givende av den grunn at jeg ble mer bevisst på hvordan jeg kan observere lagsmedlemmenes adferd. Jeg fikk også, som lytteren, erfare hvor vanskelig jeg har for å ikke si noe. |
| 20 | 1 | Ja, praksis gjør alt mer forståelig og lett å huske  |
| 21 | 2 | Jeg spilte karakterer med adferdstrekk jeg i hovedsak ikke ønsker å utvikle i stor grad (tilbaketrukkethet). Derfor følte ikke jeg at det var givende.                                 |
| 22 | 3 | Både og, introen gjorde at fokuset forsvant og de ble «kjedelig» Samtidig tok det tid før en kom igang   |
| 23 | 1 | Ja, var underholdene samt at man ble gjort oppmerksom på atferd man kan benytte seg av selv  |
| 24 | 1 | Ja, det var nyttig å observere hvordan enkelte adferder påvirker en gruppe, og hvordan en blir påvirket av andres adferd når en selv prøver en gitt adferd                             |
| 25 | 3 | Det var fint å prøve rollen som observatør. Videre gå litt ut av komfortsonen skader aldri   |

|    |   |  |
|----|---|--|
| 26 | 1 | Ja. Man får kjent på kroppen hvordan det føles å innta ulike roller. Ved å overdrive såpass blir det tydeligere hvilke elementer jeg ønsker/ikke ønsker å ta med videre  |
| 27 | 3 | Ny måte å lære på. Greit å bruke arbeidstid på, men kanskje ikke fritiden  |
| 28 | 1 | Ja, ved å prøve ut ny adferd i et trygt miljø fikk jeg sjansen til å overdrive atferden og kunne da implementere den i en mer tilpasset grad i «ekte» situasjoner med laget  |
| 29 | 3 | Det var bra at man kunne prøve ut ekstreme versjoner av atferd. Så kunne man implementere det i en mindre skala senere   |
| 30 | 1 | Det var givende fordi man fikk utfordre seg selv i et trygt miljø, pluss at det ble tatt opp utenfor rollespilltiden og diskutert i laget  |
| 31 | 1 | Ja, jeg ble mer bevisst på hvordan spesifikke atferder påvirker gruppedynamikken   |
| 32 | 1 | JA. Jeg fikk mer innsyn i hvilke adferder som fungerer i ulike situasjoner, og hvor mye av adferden som er nødvendig å ta i bruk. Det gjorde meg mer bevisst.  |
| 33 | 1 | Ja. Det var veldig læringsrikt å ha en etablert arena hvor man fikk anvende teorien man har lært. Det ble betydelig lettere å bruke det under opplegget enn å skulle prøve å anvende teorien direkte i den «virkelige verden». Kortet ned avstanden mellom teori og praksis. |
| 34 | 3 | Det var i noen grad givende.<br>Hvorfor: Det ble bevisstgjort tydelige trekk til ulike roller og det var underholdene<br>Hvorfor ikke: Det var ofte useriøst og falsk, noe som gjorde det dårlig   |
| 35 | 3 | Øver blikket på å observere  |
| 36 | 3 | Det var givende på så måte at det var morsomt å holde på med og vi ble bevisst på ulik adferd. Jeg følte derimot ikke at vi lærte å bruke en ny adferd på grunn av det ble så assosiert med lek.   |
| 37 | 1 | Ja, Bra å få utfordre seg på adferder man ellers ikke er så komfortable med.   |

|    |   |   |
|----|---|---|
| 38 | 1 | Ja, fordi man fikk oppleve ulike gruppedynamikker og hvordan det påvirker gruppen. Fikk prøvd og sett ekstreme varianter av noen roller.  |
| 39 | 3 | Det var givende å se medkadetter utfordre seg i ukomfortable situasjoner  |
| 40 | 3 | Jeg synes opplegget gir en trygg arena for å prøve ny adferd, men det er vanskelig å ta den med ut i den virkelige verden   |
| 41 | 1 | Ja. Synliggjorde markante typer i SPGR feltdiagram og gav et sammenlikningsgrunnlag til senere. Også interessant å se karakteren jeg typisk naturlig heller mot spilt av noen andre |
| 42 | 3 | Det var givende å se en levende visualisering av gruppefunksjonene/adferdene som Sjøvold refererer til.   |
| 43 | 1 | Ja. Interessant å se hvordan man tolker ulike roller utifra situasjonen man er i. Man går også sett hvordan andre reagerer på en gitt type adferd.                                  |
| 44 | 3 | Det var givende i form av at den gjorde meg mer bevisst på adferd med utgangspunkt i SPGR.  |
| 45 | 3 | For meg synliggjorde det de litt mindre synlige rollene i en gruppe, noe som i større grad tillater med å gjenkjenne og inkludere disse.  |
| 46 | 3 | Tja, føler egentlig at det ikke var det store læringsutbyttet   |
| 47 | 1 | Ja. Selve opplegget var bra med å få prøve ulike roller i praksis, men lite tid og energi ombord var en hemmer.   |
| 48 | 3 | Det var en god introduksjon. For å få utbytte mener jeg opplegget må være lengre, og foregå i en mindre hektisk periode enn på SL.  |
| 49 | 3 | Fint å teste ulike adferder, men tror for min del at det hadde vært mer givende med caser vi kan møte på i den militære profesjon.  |
| 50 | 3 | Fikk prøvd ut nye adferdsmønstre og merker at jeg mestrer spesielt opposisjon bedre etter dette. Ikke fordi jeg spilte opposisjon, men pga at jeg har øvd på annen atferd.          |



|    |   |   |
|----|---|---|
| 51 | 1 | Jeg synes det var en kul måte å lære fordi man kunne si og gjøre ting uten konsekvenser. Det ble en form for å prøve og feile uten negative konsekvenser dersom man feilet.                         |
| 52 | 3 | Det var morsomt og en annerledes måte å lære på   |
| 53 | 3 | Det var morsomt å være med på, men min personlige mening er at jeg ikke var så motivert til det fordi det tok opp tid jeg gjerne skulle brukt til noe annet   |
| 54 | 1 | Ja. Det var en trygg arena å teste seg selv på.   |
| 55 | 3 | Det var givende for enkelte andre å prøve annen atferd, men for min del var det mindre givende lærdom ut av det. Selve måten å lære å lese atferd på er givende.                                    |
| 56 | 3 | Givende i form av å få synliggjort/bevisstgjort egen atferd.  |
| 57 | 1 | Ja, opplegget var givende for det bevisstgjorde kadettene på ulik atferd og hvordan det påvirker andre.   |
| 58 | 1 | Jeg synes det var lærerikt og artig å være med på. Man tenker gjerne ikke at man kan lære på denne måten før det blir lagt opp på en måte som dette. Man blir mer bevisst.                          |
| 59 | 1 | Ja, kult å se forskjellige atferdsmønstre. Jeg sliter med å holde meg fokusert, jeg synes alt virker tilgjort.  |
| 60 | 1 | Skjemaene som gav kjennetegn på ulike «sirkler» var hjelpsomt. Det har gjort at jeg kan kjenne noe igjen hos andre rundt meg. Lærte meg å bli mer komfortabel i laget, og å utfordre normene innad. |
| 61 | 1 | Var givende når det kom til å observere atferd. Fikk et bedre bilde av de ulike atferdstypene under rollespillet.   |
| 62 | 1 | Ja, fikk en større forståelse for de forskjellige rollene i en gruppe og hvordan man kommer seg fram til en løsning i et problem  |
| 63 | 2 | Nei, jeg følte det ble for konstruert og lite reelt da man ikke kan veksle på sin atferd.   |