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# “Increased mastery of student life through mastery courses at Sit Råd?”

A glance at self-efficacy and growth mindset within a quasi-experimental design

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## Abstract

The purpose of the present study was to carry out a program evaluation with mastery courses of the student counseling service from SiT in Trondheim (SiT Råd). The main goal of the courses is to increase mastery of student life. In the wake of the operationalization of the main goal, Bandura`s (1997) concept of self-efficacy was used. Furthermore, Dweck`s (2006) theory of fixed and growth mindset represented the basis for the second concept investigated. A quasi-experimental design with an experimental group and a control group constituted the methodological frame of the present study. The experimental group consisted of 54 students who participated in one of the courses *Facing the speech anxiety 1*, *Facing the speech anxiety 2*, *Are you shy?*, *Time management* or *Stress management* in the time period between January and March 2014. The control group did not participate in any of the courses and consisted of 39 students who attended the subject *Experts in team* at NTNU. Both groups filled out a questionnaire before and after the course. The results show that both the values for self-efficacy and mindset increased significantly in the experimental group, while there was no change over time in the control group. However, not all courses show a significant change within the experimental group. Furthermore, mindset at T1 was positively correlated with self-efficacy at T2 in the experimental group. The implications of the study are discussed, together with its limitations and suggestions for future research.

Key words: Fixed and growth mindset, mastery courses, Self-efficacy, SiT Råd, Program evaluation, quasi-experiment



## Preface

“To discover something is a completely subjective experience: it is just me who can discover something for me. Others can't do this for me. Others can just point at things, show me things, or make me aware of things or relations. But it is only me who can discover them - *for me.*”

Grendstad, 1995, p.17, own translation

This citation summarizes my personal journey through both the last two years in the counseling program and the present master thesis quite well. While it was only me who could discover things for me, I am deeply thankful for all the persons that pointed at things, showed me things, or made me aware of things or relations.

When it comes to the present thesis, I especially want to thank my two supervisors Jonathan Reams and Vegard Johansen for all their support, not the least for boosting my self-efficacy and growth mindset. I would also like to offer a big thank you to my colleagues at SiT Råd for being open, enthusiastic and welcoming when it comes to my research interests. Thanks for supporting me both through having a continuous dialogue prior to the study and through helping me with the collection of the data. Last but not least I want to thank my family and friends for supporting me throughout the whole process!

When going to work now after having conducted the present study, I have a completely different view of the courses. Besides the positive feedback we get about the *Facing the speech anxiety 1* course, I have evidence based on a quantitative study that the course indeed seems to increase mastery of student life. This gives me a new kind of confidence. Last but not least, my sense of self-efficacy was consolidated, making me believe that we, as counselors, are able to help our clients to strengthen their beliefs in themselves.

Trondheim, May 2014



“Modern psychology has been co-opted by the disease model. We’ve become too preoccupied with repairing damage when our focus should be on building strengths and resilience [...].”

Martin Seligman, 2002, p. 4





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## Abbreviations

CBT	Cognitive-behavioral therapy
GSE	General self-efficacy
NRK	Norsk rikskringkasting AS (Norwegian Broadcasting Corporation)
NSD	Norsk samfunnsvitenskapelig datatjeneste (the Data Protection Official for all the Norwegian universities)
NTNU	Norges teknisk-naturvitenskapelige universitet (Norwegian University of Science and Technology)
SiT	Studentsamskipnaden i Trondheim (student welfare organization in Trondheim)
SiT Råd	Rådgivningstjenesten til studentsamskipnaden i Trondheim (counseling service for students in Trondheim)
T1	Time 1/ pretest
T2	Time 2/ posttest



# 1. Introduction

Different stages in life are connected with different challenges one has to master (Erikson, 1980). Student life is one period in life that confronts us with several difficult tasks. Most of the college students move away from their parents and thus leave a unique feeling of security behind. With an increasing degree, they have to learn to stand on their own two feet, structure their lives and take responsibility. It seems obvious and understandable that some students see themselves confronted with challenges they cannot master. “When being a college student, one should experience a feeling of freedom, happiness and be full of energy. The truth is that most of us students feel the opposite” (Fuglesang, 2014, own translation). The 24<sup>th</sup> of May 2014 a newspaper article was published on NRK`s homepage and started with these sentences. The article points out that study life is often characterized by enormous pressure and the feeling of not being good enough. Furthermore the article stresses the fact that the amount of students with mental disorders has increased in recent years.

This current example illustrates that certain challenges in student life might seem difficult to overcome. In these cases it is of great importance to offer help and support. However, instead of just repairing damage, it is essential to build strengths and resilience (Seligman, 2002). This work intends to make a small contribution in the wider context of fostering mental health and preventing mental disorders through counseling.

## 1.1 The objective of this thesis

Two years ago I started a student job at SiT Råd, a student counseling service in Trondheim. SiT Råd offers mastery courses with a variety of different topics such as time management, stress management or depression management. I am giving courses for students who struggle with speech anxiety when standing in front of a larger number of people. The overarching goal of SiT Råd is to increase mastery of student life through their mastery courses. These should also have a preventive effect on the respective challenge (Bremer & Nedregård, 2008). I soon realized that the students were very satisfied with what they learned and that they in fact perceived some improvement concerning their problem. As a counseling student I got more and more interested in the different courses at SiT Råd and in the kind of influence they actually have on the students. What affects the perceived improvement? Are there certain attitudes or beliefs that change when participating in one of the courses?

The present work constitutes a quantitative study and investigates whether self-efficacy beliefs, which refer to the belief of being able to attain a desired outcome (Bandura, 1997), change through the participation in one of the mastery courses. In addition, I studied whether

the belief in change of personal qualities, and thus a certain mindset, is connected to self-efficacy beliefs. Dweck`s (2006) theory of fixed and growth mindset provides the basis for the investigation of this question<sup>1</sup>. A broad literature search revealed the importance of self-efficacy beliefs as a contributor to mental health and to the prevention of mental disorders (e.g. Blazer, 2002; Southwick & Charney, 2012). In their report on prevention of mental disorders Muñoz, Mrazek and Haggerty (1996) stress the fact that mental health promotion is not only about seeking “freedom from disorders” (p. 1121), but also about, amongst others, seeking self-efficacy. Since the present study does not constitute a longitudinal study, it will not be possible to make a statement about the long term effect and thus the preventive effect of the courses. The study may nevertheless have some implications for mastery of student life in general and a better mental health.

## **1.2 Counseling and its prevention focus**

The term counseling is accompanied by a variety of different definitions. I choose to mainly focus on the definition and description of the field of counseling by Johannessen, Kokkersvold and Vedeler (2012) since they present it holistically with all its related disciplines. They consider counseling to be both an overarching term and a discipline ranked equal to therapy, consultation, guidance and amongst others teaching. Johannessen et al. (2012) define counseling, consultation and guidance as a pedagogical activity that has the goal of helping the client to better be able to help himself. This should not only apply for the present challenge, but also for other similar challenges. This helping relation can also be applied to groups. In line with the focus of the present work, I will mainly focus on the difference between counseling, teaching, consultation and therapy. When seeing counseling as an overarching term, it is first and foremost not primarily a counselor`s job to provide the client with new knowledge. The act of learning to make use of one`s own resources and to independently obtain relevant knowledge should be in the focus (Johannessen et al., 2012). The British Association for Counseling (BAC, 1984 in McLeod, 2001) defines counseling in a similar way. The BAC emphasizes the importance of facilitating the act of exploring, discovering and clarifying so that the client can achieve a more satisfying and resourceful life. Feltham and Dryden (1993 in McLeod, 2001) support the notion that counseling is more about facilitating than giving direct advice or even putting pressure on the client.

When having a brief look at teaching as a part of the overarching term counseling, we will become aware of some differences to the previous description. Teaching includes contributing

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<sup>1</sup> The term *mindset* refers throughout the whole thesis to Dweck`s (2006) theory about fixed and growth mindset.



with information and certain knowledge. However, within counseling as a discipline, teaching is less about providing general knowledge, but about teaching in relation to the individual problems of the clients. Counseling as a discipline refers basically to psychological counseling that has the goal of helping the clients to solve their personal problems. Consultation deals rather with job related challenges than personal mental problems and the consultant has typically more knowledge in the respective area than the consulted. Therapy on the other hand, is in a strict sense not seen as a part of counseling when one relates the term therapy to clinical psychology or psychiatry. While counseling and therapy however might overlap because of similar theoretical foundations, it is important to keep in mind that counselors usually do not have therapeutic competence (Johannessen et al., 2012).

Johannessen et al. (2012) stress the fact that all the mentioned disciplines merge into each other and can contain aspects from one another. SiT Råd illustrates this very well. It was meant to constitute an offer that fills the gap between study consultation and therapy (Bremer & Nedregård, 2008). SiT Råd's` mastery courses realize a balance between teaching and self-help facilitation as parts of counseling. They provide both with general knowledge and meet individual needs. Most of the courses also include a one-to-one counseling that allows a little more individual adjustment. Even though the courses are not meant to be therapeutic, it cannot be ruled out that they have a therapeutic effect on some participants.

After having given a brief overview of the term counseling, I would like to draw attention to the prevention focus in counseling. In this context, Alfred Adler (1979) and his pioneering work has to be mentioned. He was one of the first theorists and practitioners in the field of counseling and psychotherapy who stressed the importance of fostering psychological health in order to prevent the occurrence of problems (Ivey, D'Andrea & Ivey, 2012). Carl Rogers (1961) also approached helping with a positive focus. He placed a high value on the communication of positive regard in order to achieve positive counseling and therapy outcomes. Within the last years, these basic ideas got more attention within the framework of positive psychology. It represents a new way of thinking when it comes to personal health and well-being and directs the attention to people's potential rather than what people cannot do (Ivey et al., 2012). Martin Seligman (2002) contributed significantly to the emergence of this new concept by uttering: "Modern psychology has been co-opted by the disease model. We've become too preoccupied with repairing damage when our focus should be on building strengths and resilience, especially in children" (p. 4).

SiT Råd's` mastery courses are on the one side problem oriented with their focus on certain challenges in student life. On the other side they focus on building strengths in order to

prevent further occurrence of certain problems (Karlsen, Rønning Lund & Longva, 2014, personal correspondence<sup>2</sup>). This is accomplished through focusing on the participant`s potential rather than their deficits. This thesis intends to investigate the connection between the intention of the courses and actual changes in the participants` self-efficacy beliefs. This way it might make a contribution in the broader context of fostering psychological health in order to prevent the occurrence of problems.

### **1.3 Research question and important considerations**

Based on the overarching goal of the mastery courses at SiT Råd, I got interested in the following main research question:

“Does taking mastery courses at SiT Råd contribute to increased mastery of student life?”

It is important to mention that this work only takes a look at one counseling service and its mastery courses. That implies that it will not be possible to generalize the findings to other counseling services. However, the study might provide SiT Råd with useful information and lead to some general implications when it comes to self-efficacy and mindset in the context of counseling.

### **1.4 Outline**

After having introduced the topic of the present work, I will give a brief overview of SiT Råd, its mastery courses and the theoretical foundation of the courses. I will then present relevant theory and research that has been done on the two main concepts of this work; self-efficacy and mindset. In line with the theoretical background of SiT Råds` mastery courses, the main focus of the present work will be on the second major theoretical force in the evolution of counseling and psychotherapy theories; cognitive-behavioral counseling and therapy (Ivey et al., 2012). Based on the background of SiT Råd and the presented theory, I will present the research questions. Afterwards I will describe methodological aspects, including the choice of method, design and sample. I will also focus on the quality of the measures and essential ethical considerations. I will then move on to the results of the present study in order to discuss the findings in the light of the initially presented theory. Finally, I will conclude with the main findings, present limitations of the present study and possible directions for future research.

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<sup>2</sup> Informal interview with three counselors at SiT Råd

## **2. SiT Råd and its mastery courses**

In order to contextualize the chosen theory about self-efficacy and mindset, I will first situate it in relation to SiT Råd and its mastery courses. Thus a brief description will provide a frame for this work.

### **2.1 SiT Råd and its origin**

SiT Råd is a counseling service for students in Trondheim. Originally SiT Råd was planned as a three-year project from 2005 to 2008 in order to increase mastery of student life. It was based on a health and well-being survey which was conducted by SiT among students in Trondheim in 2004. The results of the survey indicated that there was need for a new service for students. Even though most of the students were active and had a lot of resources, there were some students who struggled with their study situation and experienced especially stress and bad conscience when it comes to their studies (Report, 2004 in Bremer & Nedregård, 2008). SiT Råd was planned to constitute a bridge between therapy and a student service that focuses on study techniques. One of the goals was to create an offer with a low threshold that has a preventive function when it comes to challenges in student life. It should offer different courses that should help students to better being able to handle their studies and especially to increase mastery of student life. The courses should treat different topics like stress, motivation and sorrow and give the students more knowledge about the different topics. In addition, the courses should give the students the possibility to talk to somebody about their problems (Bremer & Nedregård, 2008). In 2007 there was conducted a follow-up of the health- and well-being survey from 2004. Based on the results it was concluded that there was still need for a service like SiT Råd. Most of the well-being issues were related to insecurity, worries, lack of structure in daily life, unclear future plans, poor self-confidence and even anxiety disorders (Bremer & Nedregård, 2008).

When having a closer look at the overarching goal of SiT Råd, Bremer and Nedregård (2008) make use of Imsens (2005) description of mastery. They state that the feeling of increased mastery of student life depends on whether students experience “a feeling of strength and confidence in their own power” after having participated in one of the courses (Bremer & Nedregård, 2008, p.7). In order to measure this, SiT Råd has evaluated the different courses in the period between March and April 2008 by sending the course participants a link to an evaluation sheet. The participants have given a written feedback by scoring the usefulness of the courses and commenting on which aspects had been most helpful. The evaluation of the courses showed that students experienced substantially

increased mastery of student life and a belief in their own resources in study situations (Bremer & Nedregård, 2008).

Based on the results of the health- and well-being survey from 2007 and the feedback from the students to SiT Råd, the service was kept and developed further (Bremer & Nedregård, 2008). SiT Råd still exists and evaluates each course by investigating the participant's satisfaction and the perceived usefulness of the courses. However, besides these evaluations there have not been further quantitative evaluation studies after 2008. Now the present work makes an attempt of operationalizing the overarching goal of the courses in order to evaluate the effect they have on the participants.

In the following section I will present the content and the goals of the different courses. As mentioned, all the courses have the overarching goal of increasing mastery of student life. While the different courses have different sub goals and content, there is some general theoretical background that all the courses are based on. I will first present the individual focus of the different courses in the framework of cognitive-behavioral counseling before going deeper into some essential common theoretical background in the theory chapter.

## **2.2 Different mastery courses at SiT Råd**

SiT Råds` mastery courses underlie a cognitive-behavioral approach to counseling (Karlsen et al., 2014, personal correspondence). I will briefly outline some essential aspects of cognitive-behavioral counseling in order to place the courses into a context. The structure and the techniques used in the courses can be classified within Meichenbaum`s (1995) theory of cognitive-behavioral therapy (CBT). In his tradition, the attention is directed towards defining problems both cognitively and behaviorally. This should lead to cognitive, emotional and behavioral changes. CBT attaches, amongst others, great importance to giving clients the possibility of making their own discoveries. In order to facilitate the discovery process one can use different behavioral techniques like charting the changes clients have made, leading relaxation trainings or using anxiety scales that display the clients` fears. Furthermore CBT has a big emphasis on relapse prevention and prevention in general (Meichenbaum, 1991 in Ivey et al., 2012). The following paragraphs illustrate the cognitive-behavioral approach to counseling at SiT Råd.

### **2.2.1 Facing the speech anxiety 1**

The course *Ta ordet 1 (Facing the speech anxiety 1)* is intended for students with speech anxiety. This type of anxiety is connected to the fear of speaking in groups and being negatively evaluated by others (Mogård, 2005). The course has the goal to make the students

more confident when talking in front of a larger number of people. It provides information about what speech anxiety is and why it occurs (SiT, 2014). Exposure training, one of the CBT techniques (McLeod, 2013), constitutes the main technique in this course (Karlsen et al., 2014, personal correspondence). Students expose themselves to their anxiety by holding several presentations in front of the other course participants. In this way the students get the possibility to experience that the anxiety usually declines after a short while (Mogård, 2005). This process is facilitated by using an anxiety scale. Furthermore the course treats the topic self-acceptance and the relation it has with speech anxiety. The course consists of four course days with weekly intervals. Each course day lasts three hours. It has an average of 10 participants (SiT, 2014). Apart from the regular course days every course participant is offered a one-to-one counseling with the course instructor. It consists of showing the students a video of them holding a presentation on the third course day. The purpose is to elaborate the positive aspects of the presentation together with the student (Karlsen et al., 2014, personal correspondence).

### **2.2.2 Facing the speech anxiety 2**

The course *Ta ordet 2 (Facing the speech anxiety 2)* can be seen as a continuation of the course *Facing the speech anxiety 1*. It has the goal to increase knowledge and experience when it comes to holding presentations. The course treats the topic performance anxiety and gives information about what characterizes a good presentation. Furthermore there is focus on both verbal and non-verbal communication. By doing exercises, giving and getting feedback the students get the chance to practice the theoretical contents of the course. The course consists of two course days with one week in between. Each course day lasts three hours and has an average of 10 participants (SiT, 2014).

### **2.2.3 Are you shy?**

The course *Sjenert (Are you shy?)* is designed for students who feel insecure when meeting strangers. The goal is to work with this insecurity by giving different tools for how to come in contact with strangers. The course treats, amongst others, the topics what shyness is, what inhibits and what promotes Smalltalk, what impact body language has on communication and how to start and keep a conversation going. To do exercises and to exchange experiences should complement what the students theoretically learn about shyness (SiT, 2014).

Particularly exposure training and getting out of one's comfort zone becomes increasingly important in the course. The course consists of three course days with weekly intervals where each course day lasts three hours. In addition, SiT Råd has recently decided to offer a one-to-

one counseling with the course instructor after the course (Karlsen et al., 2014, personal correspondence). It has an average of 10 participants (SiT, 2014).

#### **2.2.4 Time management**

The course *Tidsplanlegging (Time management)* has the goal to give the students a basis for structuring their time in an appropriate way and to set personal priorities. The course gives information about time management techniques and helps to identify and focus on the activities that give the greatest benefit. Furthermore there is focus on group discussions. The course consists of two course days with one week in between and is followed by a one-to-one counseling with the course instructor. Each course day lasts three hours and has an average of 12 participants (SiT, 2014).

#### **2.2.5 Stress management**

The course *Stressmestring (Stress management)* is intended for students who often feel stressed. The course has the goal that the students should learn how to recognize stressors in their lives and how they can avoid an overexposure to negative stress. The course gives some information about what stress is and what leads to the feeling of stress. Furthermore it gives some advice about how to handle stress in a better way and how one can prevent it. Through both relaxation techniques, group discussions and several tasks the students get the chance to work with the topic stress. The course consists of two course days with one week in between. Each course day lasts three hours and has an average of 15 participants (SiT, 2014).

All the courses have furthermore a special focus on goal setting and how to use the acquired knowledge in the future (Karlsen et al., 2014, personal correspondence). The presented five courses are the courses that have been in the focus of the present study. At this point I have to mention that SiT Råd offers a number of other courses. Since the other courses differ to a high degree from the chosen ones when it comes to the duration and the severity of the challenge, I decided to focus on the mentioned five courses.

### 3. Theory

In the following chapter I will first focus on one essential theoretical background of SiT Råds` mastery courses before directing the attention to the main concepts of this thesis. There are many theoretical influences in the background of SiT Råds` mastery courses. However, because of the scope of the thesis and in line with the relevance for this thesis, I choose to focus on one theoretical influence, namely experiential learning.

#### 3.1 Experiential learning

SiT Råds` mastery courses have a big emphasis on facilitating discovery processes as one essential feature of CBT (Karlsen et al. 2014, personal correspondence). Nils Magnar Grendstad (1995) directs in his book *Å lære er å oppdage* (Learning by discovery) the attention to discovery processes. He stresses the difference between knowing something on the one hand and understanding and making sense out of something on the other hand. In this context he emphasizes that it is not sufficient to being told what other people know and have experienced. One has to develop a personal connection to something in order to be able to make sense out of it. These statements are based on the fact that one can have knowledge about something and even retell it without really understanding. Grendstad (1995) connects the process of discovering something with the term experiential learning. To experience something requires much more than only “hearing, seeing or thinking about something” (Grendstad, 1995, p. 136, own translation). It requires a direct encounter. This encounter leads to a personal holistic experience that is connected to physical reactions and feelings. At this point I would like to draw a line to the initially presented definitions of counseling. There can especially be seen similarities between BAC`s (1984 in McLeod, 2001) definition of counseling as facilitating the act of exploring, discovering and clarifying and Grendstad`s (1995) description of experiential learning.

The term experiential learning appeared already in connection to Kolb`s learning cycle. Kolb (1984) based his theory of experiential learning on the three major traditions of experiential learning of Dewey (1938 in Kolb, 1984), Lewin (1951 in Kolb, 1984) and Piaget (1970 in Kolb, 1984). Experiential learning represents a holistic integrative approach to learning that stresses the importance of experience in a learning process and where experience, perception, cognition and behavior are interconnected. This definition shows clear parallels to Grendstad`s (1995) description of experiential learning.

According to Kolb (1984), there are some aspects that the three major traditions of experiential learning have in common. I choose to highlight one of those aspects briefly since

I perceive it as especially relevant for this work. Earlier behavioral theories of learning were based on the assumption that learning is a result of the accumulation and combination of consistent elements of thought, so-called mental atoms. Thus, Kolb (1984) concludes that it seems possible to measure the amount of learning by the amount of these fixed thoughts, respectively atoms. However, in the experiential learning theory learning is understood as a process and is not defined by its outcomes. Thus, experiential learning is based on the assumption that “ideas are not fixed and immutable elements of thought but are formed and re-formed through experience. (...) No two thoughts are ever the same, since experience always intervenes” (Kolb, 1984, p. 26). Thereby, experience is seen as an important aspect that continuously changes and affects concepts (Kolb, 1984).

Kolb`s learning cycle includes four learning stages: concrete experience, reflective observation, abstract conceptualization and active experimentation. This implies that the process of learning starts with observations and reflections that are based on concrete experiences. These reflections provide the basis for building abstract concepts that again lead to new implications for action. Finally, these new implications can be tested through active experimentation (Kolb, Boyatzis & Mainemelis, 2001). Through their cognitive-behavioral approach SiT Råds` mastery courses give several opportunities for making concrete experiences in a group environment. Both group discussions and individual counseling focus on reflections around these experiences and might form the basis for building abstract concepts and thus new implications which can be tested both in and outside of the courses.

After having presented one essential theoretical background of the courses, I will present relevant theory and research when it comes to self-efficacy and mindset. This will be linked to the context of counseling at SiT Råd. I consider it to be relevant to have the theory of experiential learning in mind since I will relate to it both in the following sections and the discussion chapter of this work.

### **3.2 Self-efficacy**

In line with the overarching goal of the mastery courses I decided to operationalize the term *mastery of student life* with the concept of self-efficacy. The reason for choosing this concept will become clearer in the next paragraphs and will be further elaborated in the method chapter.

Self-efficacy represents a concept that has been the object of a lot of research in relation to psychological and health-related processes (Harris, Thoresen & Lopez, 2007). It plays a particularly important role in research about amongst others motivational, cognitive and affective processes of human beings (Bandura, 1994). Albert Bandura (1997) developed the



concept of self-efficacy within the framework of social cognitive theory. It is based on the assumption that human beings are agents in their own lives. This implies that people are not seen as products of their life conditions. They are perceived as agents that intentionally contribute to and influence their own functioning and their life circumstances (Bandura, 2008).

Perceived self-efficacy is described as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Bandura (1997) sees these beliefs as the most central and pervasive mechanisms of personal agency. Being able to achieve desired outcomes and to prevent undesired outcomes has a big impact on the development and exercise of personal control. However, it should be emphasized that self-efficacy refers to *the belief* in being able to attain a desired outcome and not to what objectively is the case. If people hold the belief that they do not have influence on certain results, they will not initiate actions. Self-efficacy beliefs have effects on many different areas like one’s own motivation, affect, thought processes and actions. Thus, they have an impact on how people motivate themselves, feel, think and act. More precisely, self-efficacy beliefs have an influence on how much effort people put into actions, how long they persevere when meeting hindrances or experiencing failures and to which degree they experience stress and depression when being confronted with challenges (Bandura, 1997).

High perceived self-efficacy is connected to a variety of different aspects that increase performance and personal well-being (Bandura, 1994). First of all, people with high perceived self-efficacy have the attitude that difficult tasks are challenges one can work with instead of perceiving them as a threat. Furthermore they do not only keep up their efforts in the face of setbacks or failures, they even increase their striving. In addition it does not take long for them to regain their efficacy beliefs after having experienced setbacks. These mentioned aspects are connected to lower stress and lower vulnerability to depression. People with low perceived self-efficacy, on the other hand, perceive difficult tasks as a threat and are preoccupied with their personal weaknesses. When meeting challenges, they have a tendency to give up early. Further, it takes much longer for them to regain efficacy beliefs when experiencing setbacks. These aspects are related to higher stress and vulnerability to depression (Bandura, 1994).

### **3.2.1 Generalizability and stability of self-efficacy beliefs**

In the following paragraphs I will place the question of generalizability and stability of self-efficacy beliefs in the center of attention. These aspects are essential for certain decisions I made and might have an impact on the implications of the present study.

There are divided opinions among researchers about the generalizability of self-efficacy beliefs. Bandura (1997) refers to self-efficacy as a domain- respectively task-specific construct. He points out that it cannot be seen as a “contextless global disposition” (p. 42). While people can have a high perceived self-efficacy in one activity domain, it does not imply that they have a high perceived self-efficacy in every other domain (DiClemente, 1986 in Bandura, 1997; Hofstetter, Sallis & Hovell, 1990 in Bandura, 1997). According to Bandura (1997) this aspect has to be kept in mind when measuring self-efficacy beliefs.

On the other hand there are researchers who have conceptualized the so-called general self-efficacy (GSE). It refers to a generalized concept that represents the belief in being able to deal with challenges in many different areas. Furthermore it is considered to be a stable concept (Schwarzer & Jerusalem, 1995a). Luszczynska, Scholz and Schwarzer (2005) could in fact show that GSE seems to be a universal construct that is connected to a broad variety of psychological constructs like adaptive, problem-focused coping with stress, high positive affect and more life satisfaction. Thus, GSE applies to different domains of human functioning. In addition they found a positive relation between GSE and domain-specific self-efficacy beliefs. They recommend using GSE measures in addition to situation-specific self-efficacy measures.

Miyoshi (2012) did some research on the stability and causal effects of self-efficacy. One focus of the research was directed towards the question whether changes in task-specific self-efficacy have an influence on GSE. This question was based on the fact that GSE cannot necessarily be seen as a stable concept. Literature research about the stability of self-efficacy beliefs showed that GSE in fact can be increased by certain interventions (e.g. Kennedy, Taylor & Hindson, 2006; Smith, 1989). Smith (1989) comes to the conclusion that training in generalizable coping skills leads to changes in self-efficacy that do not only concern the situations that were in the center of interest in the specific training program. However, Miyoshi (2012) found that GSE is more stable than task-specific self-efficacy. In addition he could show that both GSE had an effect on task-specific self-efficacy and that task-specific self-efficacy affected GSE. To sum up, it can be said that there is both evidence that GSE is a rather stable concept, and that GSE can be increased by certain interventions<sup>3</sup>.

### **3.2.2 Sources of self-efficacy beliefs**

Within the context of counseling, not only knowledge about the characteristics of self-efficacy might be of great importance, but also knowledge about how to strengthen these

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<sup>3</sup> At this point it has to be mentioned that the mentioned studies use different scales for measuring GSE. Thus, the studies can only be compared under reserve.

beliefs. According to Bandura (1994) there are four main sources of influence that can evolve self-efficacy beliefs. First of all he attaches great importance to having mastery experiences. They constitute the most influential source (Bandura, 1997). While experiencing successes creates stable self-efficacy beliefs, failures weaken them. Here, it is important to distinguish between easy successes and success accomplished through continuous effort and meeting obstacles and challenges. Only the latter leads to a stable sense of efficacy beliefs. In this case, experiencing setbacks and failures is seen as a useful thing, as it can contribute to realizing that effort is needed in order to succeed. Skaalvik (1995b in Skaalvik & Skaalvik, 2013) differentiates further between real mastery and perceived mastery. Self-efficacy beliefs are mainly influenced by perceived mastery, the subjective perception of mastering. This again depends to a high degree on real mastery which can be registered objectively. The second source of influence on self-efficacy beliefs is seen in observing social models experiencing success or failure. Bandura (1994) calls this a vicarious experience. The act of observing people similar to oneself having a success is directly linked to an increase of one's own belief in being able to achieve success in similar activities. The opposite is the case when observing a similar person experiencing a failure or setback. Here, it is essential to stress that the impact of this source of influence increases with the perceived similarity between the observed person and oneself.

Social persuasion is considered to be the third source of influence on self-efficacy beliefs (Bandura, 1994). The act of convincing a person verbally of being able to exercise control over certain situations is related to putting more and continuous effort into an activity. Trying to increase a person's belief in his capability is not necessarily sufficient when the person does not have much chances of experiencing a success. Therefore a "successful efficacy builder" (Bandura, 1994, p. 72) aligns situations so that there is high possibility of succeeding rather than failing. The fourth possible way of developing self-efficacy beliefs is connected to the way of perceiving emotional and physical reactions. This aspect plays an important role since people have a tendency to use their emotional and physical states as a basis for estimating their capabilities. People who hold high self-efficacy beliefs rather perceive their affective arousal as something positive and energizing. By contrast, people with low self-efficacy beliefs, perceive their affective arousal as debilitating. Based on these aspects, it is important to diminish people's stress reactions and help them to change their negative perception of their emotional and physical reactions (Bandura, 1994).

After having given an overview of the concept self-efficacy, its characteristics and ways of strengthening self-efficacy beliefs, it appears likely that SiT Råds` mastery courses might

have a positive effect on self-efficacy beliefs. Both its focus on mastery experiences through experiential learning, the possibility of observing social models through the group setting and the support one gets from the other participants and the course instructor are consistent with the mentioned sources of self-efficacy beliefs. Most of the courses also work with decreasing stress reactions and changing the perception of emotional and physical reactions.

### **3.3 Fixed and growth mindset**

The next paragraphs deal with the second concept that has been in the focus of the present research. After having given an overview of the characteristics of this concept, I will focus on its connection to self-efficacy beliefs based on previous research.

Are human qualities things that can be changed or things that are predetermined through our genes? This question, under the name of nature-nurture debate, has been in the focus of a lot of research for many years (Ceci & Williams, 1999; Hernandez & Blazer, 2006).

However, Carol Dweck (2006), a psychologist and researcher at Stanford University, directs her research towards the question of how people think about this question and what kind of consequences these beliefs have. She distinguishes between two mindsets. On the one hand there are people who mainly believe that their qualities like intelligence, personality or character are fixed and therefore show a fixed mindset (entity theory) (Dweck, 2008). On the other hand you can find people with a growth mindset (incremental theory) who believe that effort can lead to a change in their basic qualities. Having a growth mindset does not imply believing that anyone can become anything by using effort, but it is connected to the belief that one does not know a person's true potential (Dweck, 2006).

Dweck (2006) has dedicated her research for more than 20 years to the consequences of the described self-theories and came to the conclusion that "the view you adopt for yourself profoundly affects the way you lead your life" (p. 6). She could show that self-theories especially have an impact on challenge seeking, self-regulation and resilience (Dweck, 2008). Blackwell, Trzesniewski and Dweck (2007) for example could show that people who hold an incremental theory have higher learning goals, hold more positive beliefs about effort and do not attribute failure to their abilities. This again leads to choosing more positive, effort-based actions when experiencing failures. People who hold an entity theory, on the other hand, have a negative attitude towards effort (Dweck, 2010). Having to work hard in order to reach a goal is interpreted as not having the ability to reach it. In addition they struggle with experiencing setbacks. They have a tendency to react discouraged or defensive when not reaching their goals immediately. To sum it up, people with an entity theory show a helpless pattern by avoiding challenges and showing worse performance when confronted with obstacles. People

with an incremental theory show a mastery-oriented pattern by looking for challenges and continuing to show effort in the case of a failure (Dweck, 2000).

Having a certain mindset in one area, does not necessarily imply having the same mindset in another area (Dweck, 2006). Thus, implicit theories are domain specific. A person might be convinced that his intelligence is fixed. At the same time he might believe that his personality can be changed. While the intelligence mindset plays a role in situations that are related to mental ability, the personality mindset comes into focus in situations related to personal qualities like how cooperative or socially skilled a person is.

Dweck (2006) did a lot of research on self-theories about intelligence and their consequences. She also got interested in whether a certain mindset in another area leads to similar consequences as in the intelligence mindset. Erdley, Loomis, Cain, Dumas-Hines and Dweck (1997) were interested in how students' theories about their personality were related to their social goals. They could show that children who hold an entity theory of personality were striving for reducing the possibility of negative evaluation by others by choosing low-risk goals. Children with an incremental personality theory, in contrast, were not that concerned with avoiding risks and opportunities in order to avoid rejection. Dweck (2006) comes to the conclusion that people with a fixed personality mindset usually worry about how they will be judged by others. Generally, a fixed mindset is often connected to an internal monologue about judging: "This means I'm a loser" (p. 215). In contrast to that, people with a growth personality mindset rather focus on improving themselves. They are also aware of positive and negative information, but they handle this information in a different way: "What can I learn from this? How can I improve?" (Dweck, 2006, p. 215).

After having looked at the consequences the two different mindsets have, it seems to be obvious that it is important to help people develop a growth mindset. Dweck (2010) stresses in her article *Even geniuses work hard* the importance of "creating a culture of risk taking" (p. 17). She shows how to encourage a growth mindset on the basis of what kind of environment a teacher can create for his students. First of all she stresses the importance of praising the students for the process they went through rather than for the result and thereby the students' ability. This way, they can emphasize that it was the students' efforts that were the reason for progress and improvement. "Person praise essentially ignores the essence (...) and appreciates the work only as a reflection of some ability" (Dweck, 2000, p. 121). Furthermore she mentions the possibility of teaching the students about the different mindsets directly. Just the fact of having knowledge about the growth mindset might lead to a change in how people think about themselves and their lives (Dweck, 2006). Teaching can be done with the help of

a website ([www.brainology.us](http://www.brainology.us)) that informs about the scientific background of the different mindsets, about the brain and its plasticity and experiences of teachers having taught about the mindsets (Dweck, 2010).

Knowledge about how to promote a growth mindset might be relevant in a counseling setting. When having a closer look at the relation between self-efficacy beliefs and mindset, the importance of promoting a growth mindset becomes even more obvious.

### **3.4 Relation between self-efficacy and mindset**

When reading about self-efficacy beliefs and Dweck`s mindsets, one might see a lot of similarities or get the impression that these are almost identical concepts. Having a closer look at the two concepts in connection with each other illustrates the differences. While perceived self-efficacy represents the belief in being able to exercise control over certain events (Bandura, 1997), a certain mindset rather refers to the belief in being able to exercise control over basic human qualities by using effort (Dweck, 2006). Being aware of these differences, I became curious about the possibility that the latter beliefs might have an impact on self-efficacy beliefs.

Literature research on Dweck`s mindsets in connection to self-efficacy turned out to be a confusing and informative process at the same time. I realized that a lot of researchers have looked at this connection from different angles using different terms for mindset depending on what was investigated (e.g. conception of ability, implicit theory of ability, implicit theory of intelligence or goal orientation). Bandura (1997) uses the term *conception of ability* in relation to mediating processes for self-efficacy beliefs. These mediating processes refer to processes “through which efficacy beliefs produce their affects” (Bandura, 1997, p. 116).

Wood and Bandura (1989) did some research on the relation between the conception of ability and self-efficacy beliefs. They tested in their study whether seeing ability as a stable entity or as an acquirable skill had an impact on perceived self-efficacy. They came to the conclusion that believing skills can be acquired leads to a highly resilient sense of personal efficacy. Making people believe that ability is connected to a stable personal capacity, on the other hand, weakens self-efficacy beliefs when experiencing failures. Martocchio (1994) could confirm these results and show that believing that one can acquire a skill though training leads to a significant increase in self-efficacy. Thus, he showed that conceptions of ability can be seen as a determinant of self-efficacy. The studies presented here provide evidence that the development of self-efficacy beliefs might not just be a direct result of the four sources mentioned. The studies indicate rather that individual differences with respect to a certain mindset influence the development of self-efficacy beliefs. Gerhardt and Brown

(2006) investigated this connection and confirmed that individual differences in goal orientation, and thus a certain mindset, have an effect on self-efficacy development.

While I could give a detailed description of the results found, a broad literature search on studies that were investigated within the last 10 years showed that it was particularly focused on beliefs about intelligence or ability in connection to self-efficacy and academic success (e.g. Baird, Scott, Dearing & Hamill, 2009; Gerhardt & Brown, 2006). Since the present study investigates the connection between beliefs about personal characteristics in connection to self-efficacy, I will not go into more detail when it comes to former research. It will be interesting to find out if the mentioned connections also apply for the present study.

### **3.5 Summary and research questions**

The previous sections gave an overview of SiT Råd and its mastery courses and presented relevant theory and research on the two main concepts of the present thesis; self-efficacy and mindset. While being aware of the fact that there is a variety of related theories that could have been mentioned like for example the theory of locus of control (Rotter, 1954), I decided on basis of the scope of the thesis to rather delve into the main concepts. Based on the presented theory, I am going to study the following research questions, while the first research question represents the main focus of the present study:

- (1) Does taking mastery courses at SiT Råd contribute to increased mastery of student life, and thus to higher self-efficacy?
- (2) Is a certain mindset regarding personal characteristics correlated with the concept of self-efficacy?





## 4. Method

The following chapter will deal with the methodological decisions I took in the present study. I will especially focus on the design I chose, the way of collecting data, the construction of the survey and the quality of the measures. I will also describe what kind of statistical tests I used and what they measure. Before I proceed to the result chapter, I will direct the attention to essential ethical considerations and my role as a researcher.

### 4.1 A quasi-experimental design within quantitative method

The present study is based on a quasi-experimental design within a quantitative method. Method can in general be seen as a systematical way of studying and examining reality. The use of different methods enables us to create new knowledge through finding causes for certain events and meaning behind certain actions. By choosing a certain research method, one decides what kind of knowledge one wants to achieve (Halvorsen, 2008). Qualitative research leads to knowledge based on rich and profound information about a small number of people. In quantitative method one mainly achieves knowledge by registering comparable and structured information from a large number of people (Ringdal, 2013). The latter method is the focus in this study.

Why did I choose a quantitative approach in the present study? Two qualitative studies were conducted at SiT Råd (Dahl, 2008; Hirsch, 2011). However, there has not been a statistical evaluation of the courses since 2008 (Bremer & Nedregård, 2008). Furthermore the evaluation consisted of only one measurement point and focused mainly on the subjective perception of mastery of student life. In addition to the fact that I got personally interested in working with quantitative methods, I liked the idea of writing a master thesis that can have a great relevance for a counseling service. A quantitative study could both complement earlier research and build the basis for further research. Thus, I decided to do a program evaluation.

Different quantitative designs could be used to evaluate SiT Råds` mastery courses. These designs aim to find an answer to the following fundamental question: what would have happened with the participants if they had not participated in one of the mastery courses? Even if it is possible to observe the factual situation (what happens with the participants when participating in one of the mastery courses?), it is not possible to observe the counterfactual situation. For this reason, an approximation of the counterfactual situation becomes necessary (Johansen & Clausen, 2011). In order to approximate the counterfactual situation, most evaluation studies have used comparison-group designs (Mohr, 1995). These designs are characterized by including a group of participants (e.g. the experimental group) which is

compared to a group of non-participants (e.g. the control group). The control group is then used as an estimate of the counterfactual situation. In order to estimate the causal influence of a program, one uses the difference in the average score (on some indicator) between these two groups (Johansen & Clausen, 2011).

Within program evaluation, using the randomized experiment is perceived to be the best design (Mohr, 1995). Randomization involves assigning respondents randomly to treatments. This ensures that there are no systematic differences between the two groups and that any differences will be due to chance (Ringdal, 2013). However, within social science it is often not possible, and in some cases not desirable, to carry out randomized experiments (Langdridge, 2006). Therefore, most evaluation research has been done using quasi-experimental designs which are characterized by non-random assignment of individuals to either the experimental or control group (Johansen & Clausen, 2011).

When dealing with quasi-experimental designs, one can further distinguish between different approaches. In the next section I will show what kind of approach is most suitable for my master project. Robson (2011) recommends avoiding a *posttest only non-equivalent groups* design and a *pretest posttest single-group* design. In the first case there is no pretest. This means that I would not get an answer to if the experimental and the control group showed a difference before the course or not. In the second case there is no control group. Thus, it would not be possible to approximate the counterfactual situation. A good solution to these weaknesses would be to integrate those two designs into a *pretest posttest non-equivalent groups* design. This implies a pre- and posttest with the experimental and control group and that these groups are established in a different way than by random assignment (Robson, 2011). Based on these facts, I chose a *pretest posttest non-equivalent groups* design within a questionnaire survey. However, it can be imagined that it is still difficult to determine whether any difference in outcome for the two groups is a result of the intervention or due to other differences between the groups resulting from non-randomness.

Non-randomness is connected to several statistical problems resulting from, amongst others, self-selection (Mohr, 1995; Wooldridge, 2006). Self-selection implies having a test group consisting of respondents who decided on their own to take advantage of a certain program (Mohr, 1995). However, this leads to another essential problem; the possible existence of a correlation between the factors that influence assignment outcome in either the experimental or control group and the dependent variable. Quasi-experiments can lead to biased estimates of the influence of a program, if one is not able to control for all the factors that are both correlated with assignment outcome and the dependent variable using

multivariate analysis (Johansen & Clausen, 2011). In the present chapter I will show what kind of steps I took in order to ensure a methodologically strong quasi-experimental research design.

## **4.2. Hypotheses**

In the following sections I will present the hypotheses that are in the focus of the present research and argue for why I have these assumptions. With these hypotheses I intend to answer the research questions whether taking mastery courses at SiT Råd contributes to increased mastery of student life, and thus to higher self-efficacy and whether a certain mindset regarding personal characteristics is correlated with the concept of self-efficacy.

### **4.2.1 Change from the first to the second measurement**

- (1) The course participants (the experimental group) will show higher values on the self-efficacy scale<sup>4</sup> on the last course day compared to the first course day.
- (2) There is no change from the first to the second measurement in the control group.

The first hypothesis reflects the overarching goal of SiT Råds` mastery courses that there should be a change when it comes to mastery of student life when participating in one of the courses. I presume this hypothesis based on the presented theoretical and empirical background of self-efficacy. Furthermore I presume that there will not be any change in self-efficacy for the group that does not participate in one of the mastery courses. This assumption is based on the presented theory about the stability of general self-efficacy beliefs (Schwarzer & Jerusalem, 1995a). They are characterized as quite stable, particularly when no intervention takes place.

### **4.2.2 Experimental groups and control group**

- (3) The experimental group will have lower values on the self-efficacy scale than the control group on the first measurement.
- (4) There are differences between the participants of the different courses in terms of the rate of change.

I presume the third hypothesis based on the assumption that students who sign up for a mastery course might struggle with certain aspects in their student lives. Thus, it is conceivable that this is reflected in the self-efficacy score. Since students in the control group did not sign up for a mastery course, it seems likely that they do not struggle with mastery of their student lives or at least not to the same degree. It is also conceivable that they do struggle with mastery of their student lives, but that they are not able to perceive the issues

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<sup>4</sup> The scales used in the present study will be presented below.

they have in this context and thus do not seek help. When it comes to the different mastery courses, I presume that the different courses lead to different degrees of change. I imagine that the rate of change is higher in courses that have a longer duration and include individual counseling, since there is a bigger platform for the different sources of self-efficacy beliefs producing their effects.

#### **4.2.3 Other relevant variables**

- (5) Self-efficacy beliefs are different for certain groups of students, such as men and women, younger and older students, inexperienced and experienced students, students at various institutions, and students with or without previous experiences of mastery courses or therapy.

As part of the health- and well-being survey from 2010, Nedregård and Olsen (2011) studied the degree of mastery when it comes to the study situation of 6053 Norwegian students by using a slightly adapted version of the GSE scale (Jerusalem & Schwarzer, 1992). The results show that there are more women that have low self-efficacy in the study situation than men, that there is a proportional connection between the amount of study years and self-efficacy in the study situation and that there are differences between certain study institutions. However, these results are not statistically significant (Nedregård & Olsen, 2011). Even though the present study examines mastery of student life in general and not particularly mastery of the study situation, it can be assumed that the described conditions also might be reflected in the present study. Furthermore it seems plausible that age and participation in other courses or therapy can have an effect on the dependent variable. Even though the results of the health- and well-being survey from 2010 are non-significant and in spite of the fact that this hypothesis is not directly connected to the main research question, I intend to test if the described differences play a role for self-efficacy in the present study. This might imply important information for SiT Råd.

#### **4.2.4 The connection between mindset and (change in) self-efficacy**

- (6) Individuals with a high score on mindset before the participation in one of the courses have also a high score on self-efficacy after the participation in one of the courses.
- (7) Individuals with a high score on mindset will be prone to greater change in self-efficacy during the participation in one of the courses.

Since the present study constitutes the first study that investigates the connection between mindset and self-efficacy at SiT Råd, I chose to test the mentioned hypotheses in an

explorative way, however inspired by the research conducted by Wood and Bandura (1989) and Martocchio (1994).

### **4.3 Participants and sample selection**

As mentioned earlier, quasi-experiments and the concomitant non-randomness are associated with challenges in terms of selection (Mohr, 1995). This section shows the challenges I met and the choices I made when it comes to sample selection.

#### **4.3.1 Experimental group**

The experimental group consists of all the students who participated in one of the five different courses in the time period between January and March 2014. SiT Råd offers also other courses that focus on mastery of student life like depression courses. In accordance with my colleagues at SiT Råd, we came however to the conclusion that the other courses differ to a high degree from the chosen ones when it comes to the duration and the severity of the challenge. All in all there were taking place two courses in *Facing the speech anxiety 1*, one course in *Facing the speech anxiety 2*, two courses in *Are you shy?*, two courses in *Time management* and one course in *Stress management*. There were three different course instructors conducting the eight courses. Students who take part in one of SiT Råds` mastery courses sign up voluntarily for the courses in order to increase mastery of their student lives. The experimental group is thereby characterized by self-selection. The gross sample in the experimental group consists of 64 respondents. Out of the gross sample it was 54 respondents (84 %) who joined both the pre- and the posttest. This corresponds to the net sample.

#### **4.3.2 Control group**

When it comes to the selection of the control group, it would have been ideal to having found a group of students that was as similar as possible to the experimental group and thus struggled with the same difficulties as the experimental group. Since this was not possible within my design, I had to take other steps that ensured as much similarity to the experimental group as possible. Another challenge I encountered was to find a group of students that I could meet twice without having a high dropout rate on the second measurement point. With my background as a course instructor at SiT Råd I know that the course participants come from many different campuses. Since I am a learning assistant in the subject *Experts in team* at NTNU and since I knew that these students come from many different campuses, I decided to use some of these students as a control group. This way of selecting a sample is called convenience sampling. It implies choosing the nearest and most convenient persons for my control group (Robson, 2011).

*Experts in team* is a subject that has been introduced by NTNU for all master students. The purpose is to learn to cooperate with people who have a different academic background. Thus, it prepares the students for their career entry. The learning method is, as in SiT Råds` mastery courses, characterized by experiential learning and the main focus is directed to team work. There are two different versions of the subject. The students can choose between an intensive version where teaching takes place every day for three weeks and a longitudinal version where teaching takes place each Wednesday throughout the spring semester (Westad Brandshaug et al., 2014). In correspondence with the structure of SiT Råds` mastery courses, I decided to use two *Experts in team* classes that chose the longitudinal version. The gross sample in the control group consists of 42 respondents. The net sample consists of 39 respondents (93 %).

Estimations that are based on big samples are much more precise than estimations based on small samples since the margin of error decreases when the sample size increases (Ringdal, 2013). The sample consists of 54 respondents in the experimental group and 39 respondents in the control group. I acknowledge that statistical power depends on sample size, and effects can be hard to detect with a total of “only” 93 respondents.

#### **4.4 Procedure**

All the students were asked to fill out a questionnaire at two measurement points. When it comes to the experimental group, the first measurement point was on the first course day before the courses started (Time 1 [T1]). The last measurement point was right after the last course day or individual counseling, when this was a part of the course (Time 2 [T2]). The different courses had different starting dates in the period between January and March 2014 and, as mentioned, different durations. I took these aspects into account when planning the data collection for the control group. Since the first course started in the middle of January, I also decided to carry out the first measurement with the control group at that time. The average duration of the courses corresponds to three course days and thus a period of two weeks between T1 and T2. This time period was also applied for the control group.

I was aware of the fact that the experimental group would consist of a very small sample and that the subgroups would be somewhat smaller than what is recommended in the literature about quasi-experiments (Robson, 2011). Thus, it was essential to take certain steps in order to minimize the dropout rate. By choosing the postal way, I would have risked a dropout rate of 50% or more (Ringdal, 2013). This is why I chose to hand out the questionnaires personally. At the same time it was possible to personally give information

about my project. In addition to giving information orally, I handed out an information sheet (appendix F) before the respondents filled out the questionnaire (appendix G). The second measurement in the experimental group was conducted by the course instructor.

Before conducting the actual study, I conducted a pilot study with five persons in order to test the survey questions. Carrying out a pilot study makes it possible to test the questionnaire with a smaller sample and identify possible sources of error (Ringdal, 2013). The pilot study led to certain considerations and changes in the questionnaire. This will be in the focus of the next section; the measures.

## **4.5 Measures**

When constructing a questionnaire, it is often recommended to use existing questions, tests or scales (Halvorsen, 2008, Robson, 2011). Developing one's own questionnaire is complex, time consuming and makes it impossible to compare one's own study with other studies. Another option is adapting an existing scale in line with the purpose of the own study. However, this implies that the existing reliability, validity and norms do not apply for the changed scale and have to be re-established (Robson, 2011). The questionnaire of the present study is based on two existing scales and some relevant background variables. It was developed and adapted in cooperation with my supervisor Jonathan Reams and my secondary supervisor Vegard Johansen. They have a particular expertise in developing questionnaires and analyzing such data.

### **4.5.1 Self-efficacy**

Self-efficacy was measured by using a slightly changed version of the Norwegian version of the general self-efficacy scale (Røysamb, Schwarzer & Jerusalem, 1998). The original scale was developed in Germany, consists of 10 items and is one-dimensional (Schwarzer & Jerusalem, 1995a). A typical item is, "I can always manage to solve difficult problems if I try hard enough." The response format of the original scale corresponds to a 4-point scale: not at all true (1), hardly true (2), moderately true (3), exactly true (4). The final composite score can be calculated without recoding and ranges from 10 to 40. Based on samples from 23 nations, Cronbach's alpha ranged from .76 to .90 (Schwarzer & Jerusalem, 1995b). Earlier studies could show high reliability, stability and construct validity of the GSE scale (Leganger, Kraft & Røysamb, 2000 in Luszczynska et al., 2005; Schwarzer, Mueller & Greenglass, 1999 in Luszczynska et al., 2005).

On the basis of the feedback obtained through the pilot study, I decided to delete item number 8: "When I am confronted with a problem, I can usually find several solutions." This

item was perceived to be too close to many other items in the scale. Further, item number 3 was changed: “It is easy for me to stick to my aims and accomplish my goals.” This item asks about two different things at the same time. When creating a questionnaire it is recommended to avoid using multidimensional questions (de Leeuw, Hox & Dillman, 2008; Ringdal, 2013). This item was changed into a one-dimensional item: “It is easy for me to stick to my aims and goals.” In addition there were made some minor changes concerning grammar. Last, the 4-point scale was changed into a 5-point scale with a category in the middle: neither true nor untrue. According to Ringdal (2001), items with at least five categories can be used as continuous variables. I will return to this when talking about reliability analysis. With its nine items, the final composite score ranges from 9 to 45 in the adapted GSE scale. In line with Bandura’s (1997) recommendation when it comes to measuring self-efficacy beliefs, I intended to make the scale a bit more specific since the GSE scale measures a general sense of self-efficacy. I added the instruction that the participants should consider the statements based on challenges in their student life. It was not possible to make the scale even more specific since the different courses focus on different challenges in student life.

#### **4.5.2 Mindset**

Participants’ implicit theories of personality were measured by using a slightly changed version of the 8-item *Implicit Theories of Intelligence Scale* (Dweck, 2000). The complete scale consists of four entity theory statements (e.g. “Your intelligence is something about you that you can’t change very much”) and four incremental theory statements (e.g. “You can always substantially change how intelligent you are”). It assesses general beliefs about the fixedness of intelligence. The items of the scale were used in the same order as in the original scale. I translated the scale into Norwegian, and replaced the word *intelligence* by the words *personlige egenskaper* (personal characteristics). According to Dweck (2006) it is possible to substitute the word *intelligence* with other abilities or personal qualities like *artistic talent* or *certain kind of person*. On the basis of having been in regular contact with my colleagues at SiT Råd while planning the survey, I came to the conclusion that using the word *intelligence* in connection to mastery courses might be difficult to grasp for the course participants. In addition I did not intend to measure their belief in change when it comes to mental abilities. My intention was rather to connect the mindset scale to the belief in change when it comes to personal challenges in student life. Therefore I perceived it to be more suitable to use the term *personlige egenskaper*.

The response format of the scale corresponds to a 6-point scale: strongly agree (1), agree (2), mostly agree (3), mostly disagree (4), disagree (5), strongly disagree (6). With regard to



consistency with the response format of the GSE scale, the response format was reversed. Since the entity theory items were reverse-scored, the items had to be recoded in order to calculate the final composite score. The final score ranges from 8 to 48. The low end corresponds to a pure entity theory, while the high end represents agreement with an incremental theory (Blackwell et al., 2007). Blackwell et al. (2007) found an acceptable internal reliability and test-retest reliability over a two-week period of the *Implicit Theories of Intelligence Scale* with six items. Dweck, Chiu and Hong (1995) provide evidence from six validation studies showing that the implicit theory measures seem to be reliable and valid measures of the construct.

### **4.5.3 Other relevant variables**

Beside the self-efficacy scale and the mindset scale, the questionnaire includes questions on relevant background variables. These questions will make it possible to control for other possible explanations when it comes to the assessment of the impact of the mastery courses on self-efficacy. It was included gender, age, place of study and how many years the participants had studied. These background variables were placed at the beginning of the questionnaire, as it is recommended to start with neutral and easy questions. This should have a motivating effect (Ringdal, 2013). Finally I included the question whether they participated or once had participated in other mastery courses or therapy. In addition the control group had to answer the question if they at this time participated at one of the mastery courses at SiT Råd (see appendix H).

## **4.6 Quality of the measures**

In order to evaluate the quality of the measures, it is important to consider their validity and reliability (Cozby, 2009). In this chapter I mentioned already several aspects that have importance for validity and reliability. I will elaborate on this in the next sections.

### **4.6.1 Validity**

In the present study it is first of all of great importance to consider the construct validity. It refers to whether the measure that is used, in fact measures the construct one has intended to measure. One important indicator of construct validity is content validity (Cozby, 2009). This refers more specifically to whether the selected indicators of the construct cover the most important aspects of the construct and thus are linked to a hypothetical population of indicators (Ringdal, 2013). In line with the overarching goal of the mastery courses and in agreement with three counselors at SiT Råd, I chose to operationalize mastery of student life through the concept of self-efficacy. In order to strengthen the construct validity, I used a

well-established and often used self-efficacy scale and adapted it to challenges in student life. A further adaptation to the different topics of the courses would have strengthened the construct validity even more. At the same time it would have eliminated the possibility to compare the results of the different courses.

Besides construct and content validity, it is particularly important within experimental research to consider the internal validity. It refers to the extent to which a particular factor or variable actually is the reason for the effect that is found in a study and not other factors (Robson, 2011). Thus, one has to ask the question whether it is possible to make reliable conclusions about causalities (Ringdal, 2013). Applying this to the present thesis, I have to ask myself whether it was the mastery courses that actually caused an effect on mastery of student life or whether it was other possibly relevant variables. The present study is, as mentioned, characterized by non-randomness and thus selection. However, selection represents one of the most important threats for internal validity when the two groups initially are not equivalent (Ringdal, 2013). Having this in mind, I had to take other steps in order to isolate the effect of the courses and thus to strengthen the internal validity. As already mentioned, I included other independent variables in the questionnaire which have an empirical and theoretical basis for having an influence on mastery of student life. While quasi-experiments are connected to the risk of low internal validity, they are in comparison to real experiments characterized by a better ecological validity. This means that the data collected corresponds highly with the real world since they were collected in quite natural and spontaneous situations (Langdrige, 2006).

The last mentioned aspect leads to another relevant aspect of validity, namely the external validity. This refers to the question whether research results can be generalized to a clearly defined population (Ringdal, 2013). I will have a look at three aspects that affect the external validity: answer rate, dropout analysis and missing data. The answer rate corresponds to the proportion of the sample that filled out the questionnaire. A comparison between the gross sample and the net sample provides the answer rate. The response rates of 84.38 % (experimental group) and 93 % (control group) are acceptable. The dropout in the experimental group is due to dropout from the courses while the dropout in the control group is due to illness. When it comes to dropout from the courses, it is important to analyze if the dropout is random. If this is not the case, dropout weakens the representativeness of the sample (Ringdal, 2013). The dropout analysis revealed that the dropout consists of three men and seven women in the age between 19 and 33 ( $M = 24$ ,  $SD = 3.74$ ). Out of these ten persons, three dropped out of the *Time management* course, two out of the *Stress management*

course, three out of the *Are you shy?* course and two out of the *Facing the speech anxiety I* course. The dropout showed an average score of  $M = 19.5$  ( $SD = 4.74$ ) on the self-efficacy scale and an average score of  $M = 30.4$  ( $SD = 7.55$ ) on the mindset scale. When comparing these scores with the scores of the experimental group ( $M = 20.78$ ,  $SD = 3.15$  on the self-efficacy scale and  $M = 32.80$ ,  $SD = 6.44$  on the mindset scale), only minor differences can be found. The fact that there is no big difference in the scores between the dropout and the experimental group and that there is even dropout in almost every course indicates that the dropout is random. Thus, I can conclude that the dropout does not weaken the representativeness of the sample.

Missing data refers to the fact that some respondents do not answer to all the questions. This leads to a gap in the data matrix and can also weaken the representativeness of the sample. However, it is not problematic, if there are not too many gaps and if they are random. Since I am dealing with quite a small sample, I decided to use a common technique to fill in missing data rather than excluding the person who has at least one missing value. I chose *person mean substitution* where a missing value is imputed by using the person's mean scale score over the observed item (Huisman, 2000). This technique had to be applied for 23 units.

When it comes to the selection of the control group, I chose, as mentioned, convenience sampling. While this can contribute to a high response rate, it belongs however to non-probability sampling (Robson, 2011). This implies that I cannot generalize from the control group sample to the population of students (Ringdal, 2013). When it comes to the experimental group, it is not possible to talk about generalization to all of SiT Råds` courses. However, after considering the external validity, it can be said that the present program evaluation can be generalized to the chosen courses and might have a high relevance for future courses. Still, it has to be kept in mind that there is a variety of different aspects, like the setting or the time period, that might interact with the program and thus lead to different effects on other subjects (Mohr, 1995).

#### **4.6.2 Reliability**

Reliability refers to whether one obtains the same results when doing repeated measurements with the same measure. In order to obtain a high validity, high reliability is crucial (Ringdal, 2013). One way of assessing reliability is by measuring the internal consistency between the items chosen for measuring a certain construct. In this case one does not need several measurements. One indicator for internal consistency is Cronbach`s alpha which is based on the correlation of each item with every other item. It tells us how closely related the items are as a group (Clausen & Johansen, 2012). The items used to measure self-

efficacy and mindset are measured on ordinal scales. Cronbach`s alpha is though a method best suited for continuous data. Since there are enough categories (5 or more) and since the frequency distribution is unimodal with an internal mode, the ordinal scale variables can be used as continuous scales (Grilli & Rampichini, 2007; Muthén & Kaplan, 1985).

**Table 1 Reliability tests of the self-efficacy and mindset scale**

	Items	Alpha (pre)	Alpha (post)	Values
Self-efficacy	6	.76	.83	6-30
Mindset	8	.93	.94	8-48

Table 1 shows a summary of the reliability tests. Reliability analysis with the 9 items of the self-efficacy scale revealed an alpha value of .74 in the pretest which exceeds the lower limit of  $\alpha = .7$  for a satisfying reliability (Ringdal, 2013). In order to check if the items are positively connected with each other, one has to consider bivariate correlations which should lie between .3 and .6 (Clausen & Johansen, 2012). Since the first three items fall below .3 and partially even show negative correlations in the pretest, I excluded these items from further analyses. Even though item 8 shows some correlations below .3 in the pretest, it shows acceptable correlations in the posttest (.31-.47) and was therefore included in further analyses. All the eight items of the mindset scale are used in further analyses. It has to be mentioned though that the bivariate correlations are very high (.5-.8) which might be a sign for having included redundant items (Ringdal, 2013). The reliability analyses can be found in appendix A. The six remaining items of the self-efficacy scale and the eight items of the mindset scale are used as a composite measure in further analyses.

#### **4.7 Statistical methods**

The statistical analysis of the data was done by using SPSS 21. The data was entered manually into the data file.

In order to answer the main research question (Does taking mastery courses at SiT Råd contribute to increased mastery of student life?), I compared the pretest results with the posttest results of both the experimental and control group. For this purpose I used a t-test for dependent samples. A t-test for dependent samples is used when comparing two means of the same group (Field, 2005).

In order to find out if there is a difference between the experimental and control group, I used a t-test for independent samples since the purpose was to compare the means of two

independent groups. This test was carried out with both the pre- and the posttest results and the change (posttest minus pretest).

Whether there is a difference between the different courses, was tested by using an ANOVA-test. ANOVA can be used in statistical analyses where one wants to compare more than two means (Field, 2005). It gives us information about how the independent variables, in this case the different courses, interact with each other. In addition, it tells us what effects the interactions have on the dependent variable, namely self-efficacy. This test was carried out with both the pre- and the posttest results and the change (posttest minus pretest).

In order to check the impact of other relevant variables (gender, age, study institution etc.) on self-efficacy and the change in self-efficacy, multiple linear regression analysis was used. A multiple linear regression is used when an outcome is predicted from several independent variables and when the dependent variable is continuous. The general multiple regression model consists of a dependent variable (Y) which is linearly related to a combination of several independent variables ( $X_1, X_2 \dots X_k$ ) multiplied by their respective coefficients plus a residual term. A multiple regression gives a much more complete presentation of the studied phenomena and a more precise description of causal connections compared to bivariate analyses. It can be compared with a controlled experimental study since it identifies the effect of one variable while keeping the other variables constant (Midtbø, 2010). The multiple regression coefficient ( $R^2$ ) represents the amount of variation in the outcome variable that is explained by the model. The *adjusted*  $R^2$  represents a measure of the loss of predictive power and gives information about the amount of variance in the outcome if the model was based on the population rather than the sample (Field, 2005).  $B_k$  corresponds to the unstandardized regression coefficient and represents the average change in the outcome variable Y resulting from a change in one unit in  $X_k$  keeping the other variables constant. *Beta* corresponds to the standardized coefficient and usually varies between -1 and 1 (Midtbø, 2010). I used blockwise entry in the analysis which allowed me to enter predictors into the model based on logical and theoretical considerations (Field, 2005).

The second main research question and thus hypotheses six and seven was answered by using Pearson's correlation coefficient which constitutes a standardized measure of the strength of relationship between two variables. It can vary between -1 and 1 (Field, 2005). Values between  $r = .10-.29$  correspond to a weak correlation, values between  $r = .30-.49$  correspond to a moderate correlation and values between  $r = .50-1.0$  correspond to a high correlation (Pallant, 2010).

T-test, ANOVA test and linear regression are parametric tests. Parametric tests are based on the mean and thus vulnerable to extreme values when the sample size is low (Ringdal, 2013). As tests of sensitivity I have also conducted more robust tests. Results for the t-test for dependent groups are compared with the Wilcoxon signed-rank test. Results for the t-test for independent groups are compared with the Mann-Whitney-U-test, and results for the ANOVA tests are compared with the Kruskal Wallis test (Field, 2005). Results for all of these tests are presented in appendix C. In the regression analysis I have tested the assumptions of normally distributed residuals, homoscedasticity, linearity, the absence of multicollinearity and the absence of influential cases (see appendix D).

#### **4.8 Ethical considerations**

Within the frame of research methods, there is one essential part that should be kept in mind throughout the whole research process, namely research ethics. Research ethics refer to a variety of values and norms which help to regulate research processes (Retningslinjer NESH, 2006). The national research ethics committee of social sciences and humanities (NESH) presents 15 guidelines when it comes to research on individuals. Within the present study, I especially had to deal with four of them. These will be presented briefly.

##### **4.8.1 Requirement of informed and free consent**

Giving a free and informed consent implies giving consent based on sufficient information about participation in a research project and without external pressure. Information should be given in an understandable way (Retningslinjer NESH, 2006). Handing out an information sheet (see appendix F) and being present when the questionnaire was filled out ensured that the participants could ask questions and could understand the purpose of the study. Nobody refused to participate.

##### **4.8.2 Requirement of confidentiality**

The just mentioned aspect leads to the importance of communicating confidentiality. Participants have the right to demand that all their personal information will be treated confidentially. This includes that the data usually must be anonymized (Retningslinjer NESH, 2006). In order to ensure that the participants understood the last mentioned aspects, I emphasized them when introducing my project. The importance of this guideline within my research project gets even more obvious when having a look at the next guideline.

#### **4.8.3 Requirements for storage of information that could identify individuals**

In order to analyze the data within my quasi-experimental design meaningfully, I had to link the pretest result to the posttest result of the same person. For this purpose I associated a number key with the names of the respondents. In this case it is essential to separate the two lists while the name key should not be saved electronically and be deleted when having linked the two results (Retningslinjer NESH, 2006). I conducted the data archiving in line with these guidelines.

#### **4.8.4 Concession and notification requirement**

All the research projects within social science in Norway that include storage and use of personal data have notification requirement and must be approved in advance. Personal data is information that either directly or indirectly can identify a person. By collecting the name and associating it with a number key it would be possible to identify a person indirectly (Retningslinjer NESH, 2006). Thus, I applied for approval at NSD (norsk samfunnsvitenskapelig datatjeneste), the Data Protection Official for all the Norwegian universities, and got the project approved (see appendix I).

#### **4.9 My role as a researcher**

Before moving on to the result chapter, I want to dedicate a few lines to my role as a researcher. When I chose to use a quantitative method in my master thesis, I initially had the attitude that a quantitative researcher is much more neutral, objective and distanced when it comes to the research process compared to researchers within qualitative and Q-method. This makes sense when thinking of a quantitative researcher as a person who only works with *numbers* without seeing the individuals behind them. While I still perceive that I was more neutral, objective and distanced than what qualitative and Q-method requires, I have a whole new impression of what quantitative method demands from the researcher. Even though my subjectivity might not have played a crucial role in the analysis of the data, I had to take essential individual choices throughout the whole research process. These choices range from choice of theory, design to the focus I chose when discussing the results, just to mention a few. They are based on my subjectivity. This resulted in that I did not feel as a researcher only acting behind the scenes. The presented research process is a product of individual and conscious choices that are present throughout the whole thesis.





## 5. Results

In the following chapter I will present the results I found with regard to the different hypotheses I stated in the previous chapter. I will first present the background variables before having a closer look at the dependent variables and each of the hypotheses.

### 5.1 Background variables

**Table 2** *Background variables*

	Experimental group ( <i>N</i> = 54)	Control group ( <i>N</i> = 39)
<b>Gender</b>		
Male	12 (22 %)	20 (51 %)
Female	42 (78 %)	19 (49 %)
<b>Study institution<sup>5</sup></b>		
Dragvoll	13 (24 %)	3 (8 %)
Gløshaugen	21 (39 %)	35 (90 %)
HiST	15 (28 %)	0
DMMH	3 (5 %)	0
Øya	2 (4 %)	1 (2 %)
<b>Participation in other mastery courses or therapy</b>		
Yes	11 (20 %)	0
No	26 (48 %)	34 (87 %)
No, but I did it earlier	17 (32 %)	5 (13 %)
<b>Participation in one of SiT Råds mastery courses</b>		
Yes	-	0
No	-	39 (100%)

*N* = 93

Table 2 shows the categorical background variables both in the experimental group and the control group. While there are almost 80 % women in the experimental group, there are

<sup>5</sup> Dragvoll, Gløshaugen and Øya are three campuses that belong to NTNU. Mainly students from these three campuses and students from HiST (Høyskolen i Sør-Trøndelag) and DMMH (Dronning Mauds Minne Høgskole) are represented in the courses.

around 50 % men and 50 % women in the control group. Thus, when it comes to gender, there is a noticeable difference between the groups. When it comes to the average age in the two groups, there is almost no difference ( $M = 22.7$ , 19-30 in the experimental group and  $M = 23.5$ , 22-30 in the control group).

When having a closer look at the different study institutions, it can be said that almost 40% of the experimental group studies at Gløshaugen, almost 30 % at HiST and 24 % at Dragvoll. Students at DMMH and Øya together represent only 9 % of the experimental group. When it comes to the control group, 90 % of the students study at Gløshaugen, only 8 % at Dragvoll and 2 % at Øya. Students from HiST and DMMH are not represented in the control group since they do not have the subject *experts in team*. Thus, when comparing the distributions of the study institutions in the two groups, I can conclude that the majority in both groups study at Gløshaugen, but that the distributions differ noticeably. Another difference between the groups becomes obvious when comparing the years of study. The experimental group has studied, on average, about two and a half years ( $M = 2.6$ , 1-5) while the control group has studied, on average, about 4 years ( $M = 4.1$ , 3-5) since it consists of master students.

When it comes to participation in other mastery courses or therapy, 20 % of the experimental group joined other mastery courses or went to therapy at that time while this was not the case for about half of the experimental group. However, 32 % of the participants have experience with other mastery courses or therapy. In the control group there was nobody who joined other mastery courses or went to therapy at that time and almost 90 % do not have experience with either of them. Only about 10 % of the control group has experience with other mastery courses or therapy. Thus, I can conclude that the groups also differ in this aspect. Finally, the last question was already answered by the previous question. Nobody in the control group participated at one of SiT Råds` mastery courses at that time.

## 5.2 Descriptive statistics of the dependent variables

Before presenting the results of the bivariate and multivariate analyses, I will present the univariate analysis of the two dependent variables of the present study. Since there were two measurements, univariate analyses for both T1 and T2 will be shown.

Table 3 shows the descriptive statistics of the dependent variables self-efficacy and mindset in the whole sample ( $N = 93$ ,  $N = 92$  for mindset at T2<sup>6</sup>). Self-efficacy is, as mentioned, a composite measure of six items with the smallest possible value of six and the highest possible value of 30 (see table 1). Both at T1 and T2 the smallest value is 14, while

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<sup>6</sup> One person dropped out of the post analysis with regard to mindset since the person did not fill out the mindset scale.

the highest value is 29 at T1 and 30 at T2. The sample shows an average of 21.8 ( $SD = 3.1$ ) in self-efficacy at T1 and an average of 23.2 ( $SD = 3.2$ ) at T2. Mean and median show similar values both at T1 and T2 and are more or less located in the middle of the smallest and highest possible value. This indicates that the variable self-efficacy is normally distributed.

**Table 3 Univariate analyses of self-efficacy and mindset**

	Self-efficacy		Mindset	
	T1	T2	T1	T2
Mean	21.8	23.2	31.6	33.0
Median	22.0	23.0	32.0	33.5
Standard deviation	3.1	3.2	7.4	7.5
Minimum	14	14	8	14
Maximum	29	30	47	48

$N = 93$ ,  $N = 92$  for mindset at T2

Mindset is a composite measure of eight items with the smallest possible value of eight and the highest possible value of 48 (see table 1). At T1 mindset ranges in the sample from eight to 47. At T2 mindset shows a smaller range from 14 to 48. The sample shows an average of 31.6 ( $SD = 7.4$ ) in mindset at T1 and an average of 33.0 ( $SD = 7.5$ ) at T2. Also with regard to mindset, mean and median show similar values both at T1 and T2 and are more or less located in the middle of the smallest and highest possible value. Thus, also the variable mindset is normally distributed. The figures for the four univariate analyses can be found in appendix B.

### 5.3 Change from the first to the second measurement in self-efficacy

The first research question was whether taking mastery courses at SiT Råd contributes to increased mastery of student life, and thus to higher self-efficacy. In the first hypothesis I assumed that the course participants will show higher values on the self-efficacy scale on the last course day compared to the first course day. In addition, I assumed in the second hypothesis that there is no change from the first to the second measurement in the control group. Table 4 shows an overview of the means in the experimental groups and the control group and the results of the t-tests and ANOVA test when it comes to self-efficacy. Since I have small sample sizes I have, as mentioned in the method chapter, also executed non-parametric tests such as Wilcoxon, Mann-Whitney-U and Kruskal Wallis tests as a sensitivity analysis (see appendix C).

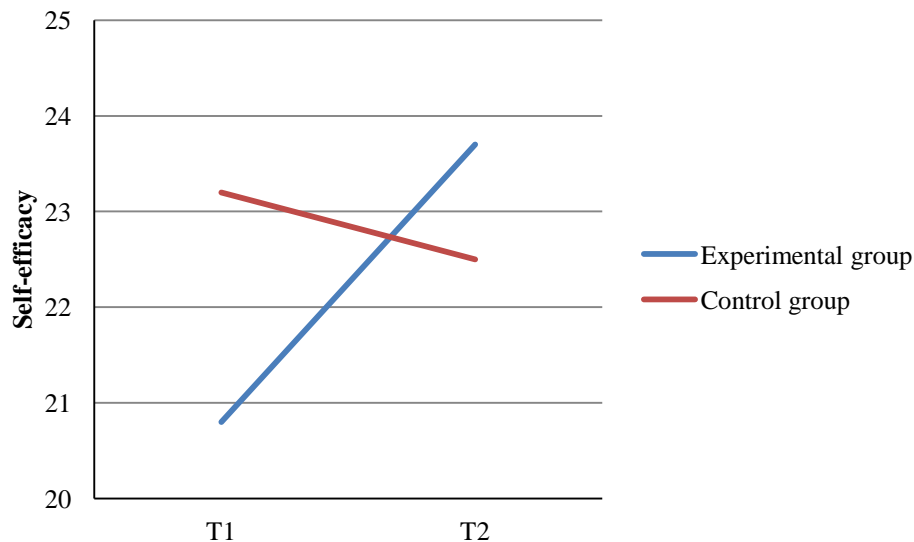
I follow a decision rule such as the following: reject  $H_0$  and believe  $H_1$  if  $p \leq .05$ . A t-test for dependent groups revealed that there actually is a significant increase from the first course day ( $M = 20.8$ ,  $SD = 3.2$ ) to the last course day ( $M = 23.7$ ,  $SD = 3.5$ ,  $t(53) = -8.3$ ,  $p < .01$ ) when it comes to self-efficacy in the experimental group. Even though self-efficacy actually decreased from T1 ( $M = 23.2$ ,  $SD = 2.5$ ) to T2 ( $M = 22.5$ ,  $SD = 2.7$ ) in the control group, the difference does not get significant ( $t(38) = 1.9$ ,  $p > .05$ ). Thus, hypothesis one and hypothesis two can be confirmed. These results are illustrated in figure 1.

**Table 4 Self-efficacy**

	T1 Mean	T2 Mean	Mean difference (T2-T1)	p-value (t-test for dependant groups)	N
Control group (EiT)	23.2	22.5	-0.7	.07	39
Experimental group (all)	20.8	23.7	2.9	<b>.00**</b>	54
p-value (t-test for independent groups)	<b>.00**</b>	.06	<b>.00**</b>	-	-
Facing the speech anxiety 1	21.3	24.9	3.6	<b>.00**</b>	16
Facing the speech anxiety 2	21.0	23.1	2.1	.06	7
Are you shy?	19.9	21.8	1.9	.09	10
Time management	21.5	25.2	3.6	<b>.00**</b>	13
Stress management	19.5	21.9	2.4	<b>.01**</b>	8
p-value (ANOVA)	.53	<b>.05*</b>	.33	-	-

\*  $p \leq .05$ , \*\* $p \leq .01$

Having a closer look at the difference between T1 and T2 in the different sub groups of the experimental group, one can see that self-efficacy increases in each course. While the difference in the *Facing the speech anxiety 1* ( $t(15) = -6.7$ ), the *Time management* ( $t(12) = -4.5$ ) and the *Stress management* course ( $t(7) = -3.3$ ) shows significance at a .01 level, the difference in the *Facing the speech anxiety 2* ( $t(6) = -2.4$ ) and *Are you shy?* course ( $t(9) = -1.9$ ) does not get significant. All the results can be confirmed by the non-parametric tests (see appendix C). However, these results still have to be interpreted with caution because of the small sample sizes in the sub groups.



**Figure 1** *Two-way interaction of group x time on self-efficacy*

#### 5.4 Experimental groups and control group with regard to self-efficacy

In the third hypothesis I assumed that the experimental group will have lower values on the self-efficacy scale than the control group on the first measurement. A t-test for independent groups revealed that the experimental group in fact shows significantly lower self-efficacy ( $M = 20.8$ ,  $SD = 3.2$ ) than the control group at T1 ( $M = 23.2$ ,  $SD = 2.5$ ,  $t(91) = 3.9$ ,  $p < .01$ ) (Table 4). Thus, also the third hypothesis can be confirmed. When having a look at T2, the experimental group actually shows higher self-efficacy ( $M = 23.7$ ,  $SD = 3.5$ ) than the control group ( $M = 22.5$ ,  $SD = 2.7$ ). However, this difference is non-significant ( $t(91) = -1.9$ ,  $p > .05$ ).

When looking at the differences between the different courses at T1, one can see that participants in the *Are you shy?* ( $M = 19.9$ ) and *Stress management* course ( $M = 19.5$ ) have the lowest self-efficacy. The other three courses show a higher self-efficacy and only minor differences between each other whereby participants in the *Time management* course show the highest self-efficacy ( $M = 21.5$ ). An ANOVA test showed however that the differences are non-significant ( $F(4, 49) = 0.8$ ,  $p > .05$ ).

A look at the differences between the courses at T2 is similar. Participants in the *Are you shy?* ( $M = 21.8$ ) and *Stress management* course ( $M = 21.9$ ) still have the lowest self-efficacy and participants in the *Time management* course ( $M = 25.2$ ) show the highest self-efficacy. These differences are significant ( $F(4, 49) = 2.6$ ,  $p \leq .05$ ). The fact that the differences at T2 are larger than at T1 is an indication that there might be differences in terms of the rate of change.

In the fourth hypothesis I assumed that there are differences between the participants of the different courses in terms of the rate of change. The biggest changes are found in the courses

*Facing the speech anxiety I* and *Time management*. The rate of change was smallest in the *Are you shy?* course. An ANOVA test of the mean differences (T2-T1) between the different courses is non-significant ( $F(4, 49) = 1.2, p > .05$ ). Thus, the fourth hypothesis must be rejected. All the mentioned results can be confirmed by the non-parametric tests (see appendix C).

## 5.5 Other relevant variables

In the fifth hypothesis I assumed that self-efficacy beliefs are different for certain groups of students, such as men and women, younger and older students, inexperienced and experienced students, students at various institutions, and students with or without previous experiences of mastery courses or therapy. This hypothesis was tested by using a blockwise linear regression. Table 5 shows the results of the regression analysis with the whole sample at T1 and self-efficacy as the dependent variable. The categorical independent variables have been transformed into dichotomous variables and dummy coded in order to better being able to interpret the results (Midtbø, 2010). The dichotomous variable *gender* was dummy coded into the variable *men* (value 1) with the reference category *women* (value 0). All the study institutions except *Gløshaugen* were merged and transformed into the variable *other institutions* (value 1). *Gløshaugen* (value 0) represents the largest category and was therefore assigned as the reference category. The variable *experience/participation* (value 1) consists of students with former experiences with mastery courses or therapy, or who joined other courses/therapy at the time of the data collection. The category *no experience/participation* (value 0) represents the largest category and was therefore assigned as the reference category.

The variables *men* and *age* were entered in the first block since they constitute exogenous variables. This implies that they are not influenced by other variables (Midtbø, 2010). The variables *other institutions* and *years of study* are not necessarily exogenous variables since it is conceivable that the variables *men* and *age* can affect them. Therefore they were entered in the second block. The variable *experience/participation* was entered in the third block in order to find out the individual contribution of this predictor.

**Table 5 Regression analysis, blockwise, dependent variable: self-efficacy at T1**

	<u>Model 1</u>			<u>Model 2</u>			<u>Model 3</u>		
	B	SE	Beta	B	SE	Beta	B	SE	Beta
Constant	15.60**	3.68		15.33**	4.14		14.86**	3.94	
Men	1.11	0.69	.17	0.96	0.75	.15	0.70	0.72	.11
Age	0.25	0.16	.17	0.27	0.21	.18	0.32	0.20	.21
Other institutions				-0.39	0.84	-.06	0.1	0.81	.02
Years of study				-0.00	0.34	-.00	0.02	0.33	.01
Experience/participation							-2.13**	0.66	-.33
Adjusted R <sup>2</sup>	.05			.04			.13		

Reference categories: women, Gløshaugen, no experience/participation

$N = 93$ , \* $p < .05$ , \*\* $p < .01$

*Adjusted R<sup>2</sup>* decreases from model 1 to model 2. This is an indication for a minimal effect of the two added variables on self-efficacy. The second model would explain 4 % (*adjusted R<sup>2</sup> = .04*) of the total variation in the dependent variable self-efficacy if the model was derived from the population, and when including the variable *experience/participation* in model 3, 13% of the total variation in self-efficacy would be explained (*adjusted R<sup>2</sup> = .13*). Thus, it seems that the variable *experience/participation* has some impact on self-efficacy. This is also confirmed in the test of significance. Through this test, I find a statistical significant effect for the variable *experience/participation*. The remaining variables (*men, age, other institutions* and *years of study*) are non-significant.

The results for the variable *experience/participation* are  $B = -2.13$  and  $Beta = -.33$ . Thus, it seems that the variable has a moderate negative effect on self-efficacy. This implies that the less experience one has with other mastery courses or therapy, the higher self-efficacy one has. Thus, the fifth hypothesis can only partly be confirmed. However, the presented results of the regression model have to be interpreted with caution because of the small sample size of only 93 respondents. The tests of the assumptions of the linear regression can be found in appendix D. No violations of the assumptions are found.

As described in more detail in the method chapter, quasi-experiments can lead to biased estimates of the influence of a program, if one is not able to control for all the factors that are both correlated with assignment outcome and the dependent variable using multivariate analysis (Johansen & Clausen, 2011). Thus, I also conducted a multivariate linear regression with the whole sample and the change in self-efficacy as the dependent variable. However,

since the results are only intended to constitute a support for the main findings of the present study, they are not elaborated in detail. The regression table can be found in appendix E. The results indeed confirm the main findings. When controlling for other possibly relevant variables, no significant results can be found and the effect of the mastery courses persists. Furthermore, *adjusted R<sup>2</sup>* decreases when adding the background variables in model 2. Thus, the background variables do not have an impact on the change in self-efficacy.

## 5.6 Mindset

Before focusing on the last hypotheses, I want to direct the attention to the results with respect to mindset. Even though it was initially not intended to measure a change in mindset, the quasi-experimental design of the present study allows me to do the same analysis with mindset as with self-efficacy. Thus, this analysis can be seen as explorative without any specific hypothesis. However, I will not present these results as detailed as with self-efficacy.

Table 6 shows an overview of the means in the experimental groups and the control group and the results of the t-tests and ANOVA test when it comes to mindset. First of all it can be noticed that the experimental group shows higher values on mindset both at T1 and T2. While these differences do not get significant for T1, they get significant for T2 (Control group:  $M = 30.1$ ,  $SD = 7.4$ , experimental group:  $M = 35.2$ ,  $SD = 6.8$ ,  $t(90) = -3.4$ ,  $p < .01$ ).

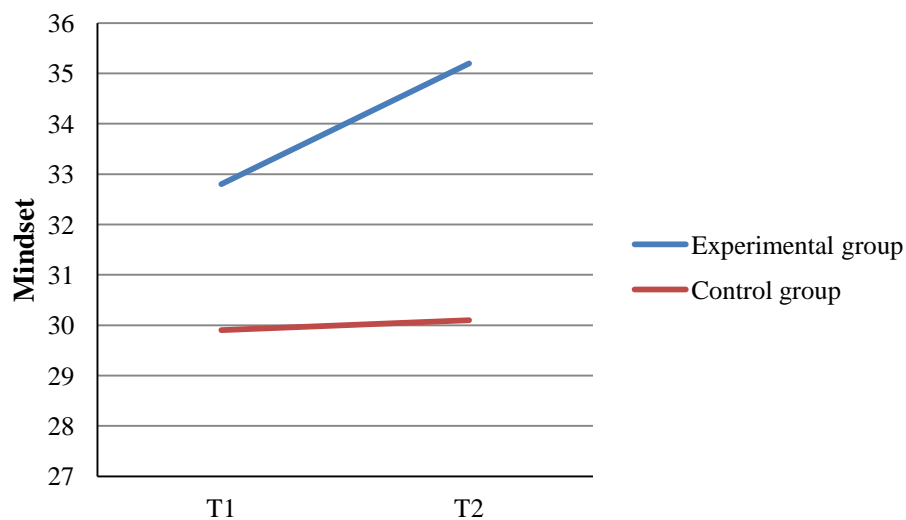
A t-test for dependent groups revealed that there was no change with regard to mindset in the control group. In contrast to that, a significant increase can be found in the experimental group (T1:  $M = 32.8$ ,  $SD = 6.5$ , T2:  $M = 35.2$ ,  $SD = 6.8$ ,  $t(52) = -4.4$ ,  $p < .01$ ). These results are illustrated in figure 2. When having a closer look at the different courses, one can see that the values for mindset increase in all the courses from T1 to T2. However, the differences get only significant in two courses: *Time management* (T1:  $M = 33.0$ ,  $SD = 6.4$ , T2:  $M = 35.9$ ,  $SD = 6.5$ ,  $t(12) = -3.1$ ,  $p \leq .01$ ) and *Facing the speech anxiety I* (T1:  $M = 32.2$ ,  $SD = 6.6$ , T2:  $M = 35.0$ ,  $SD = 8.1$ ,  $t(14) = -2.3$ ,  $p < .05$ ). All the mentioned results can be confirmed by the non-parametric tests (see appendix C).



**Table 6 Mindset**

	T1 Mean	T2 Mean	Mean difference (T2-T1)	p-value (t-test for dependant groups)	N
Control group (EiT)	29.9	30.1	0.2	.77	39
Experimental group (all)	32.8	35.2	2.4	<b>.00**</b>	53
p-value (t-test for independent groups)	.06	<b>.00**</b>	<b>.01**</b>	-	-
Facing the speech anxiety 1	32.2	35.0	2.8	<b>.04*</b>	15
Facing the speech anxiety 2	36.3	37.3	1.0	.53	7
Are you shy?	31.7	34.3	2.6	.10	10
Time management	33.0	35.9	2.9	<b>.01**</b>	13
Stress management	31.9	33.5	1.6	.14	8
p-value (ANOVA)	.64	.85	.83	-	-

\*  $p < .05$ , \*\* $p \leq .01$

**Figure 2 Two-way interaction of group x time on mindset**

### 5.7 The connection between mindset and (change in) self-efficacy

In order to answer the second main research question whether a certain mindset regarding personal characteristics is correlated with the concept of self-efficacy, I assumed in the sixth

hypothesis that individuals with a high score on mindset at T1 would also have a high score on self-efficacy at T2. Regarding the sixth and seventh hypotheses, I chose to focus on the experimental group since this group was of main interest in the present study. A correlation analysis with mindset at T1 and self-efficacy at T2 revealed a weak positive correlation ( $r = .26, p \leq .05, N = 54$ ). Thus, participants with a high score on mindset at T1 also have a high score on self-efficacy at T2. I can conclude that the sixth hypothesis can be confirmed.

In the seventh hypothesis I assumed that individuals with a high score on mindset will be prone to greater change in self-efficacy during the participation in a mastery course. This hypothesis could not be confirmed ( $r = .13, p > .05, N = 54$ ).

## 5.8 Summary

When having a look at the main findings of the present study, I can summarize that the experimental group shows a significant increase in self-efficacy from T1 to T2. There is no change over time in the control group. The increase from T1 to T2 gets significant in the courses *Facing the speech anxiety 1*, *Stress management* and *Time management*. While there are no differences between the different courses at T1, significant differences can be found at T2. The courses *Are you shy?* and *Stress management* have the lowest self-efficacy while the course *Time management* has the highest self-efficacy. However, an ANOVA test revealed that there are no differences in the rates of change when it comes to the different courses. The results of the main regression analysis revealed that only the background variable *experience/participation* has a significant impact on the variable self-efficacy at T1. When having a look at the values for mindset, I can sum up that there is a significant increase from T1 to T2 in the experimental group, while there is no difference in the control group. The increase from T1 to T2 gets significant in the courses *Facing the speech anxiety 1* and *Time management*. When it comes to the relation between self-efficacy and mindset in the experimental group, it can be said that there is a weak positive correlation between mindset at T1 and self-efficacy at T2. Finally, I can sum up, that five hypotheses could be confirmed respectively partly confirmed, while two hypotheses had to be rejected.

## 6. Discussion

The present study constitutes a first attempt to operationalize the main goal of SiT Råds` mastery courses in order to carry out a program evaluation. Besides Bandura`s (1997) concept of self-efficacy, which was assumed to play a main role in the frame of the courses, Dweck`s (2006) theory of growth and fixed mindset has become a focus of the present research. The quasi-experimental design of the present study included an experimental group which took part in one of SiT Råds` mastery courses and a control group. Further, the design consisted of two measurements. In the present chapter I will interpret the results for self-efficacy, mindset and their connection and discuss them in the light of the mentioned theory. In relation to self-efficacy I will also discuss the results of the two regression analyses and derive possible implications for the mastery courses at SiT Råd. This way, I will answer the two research questions that created the frame of the present thesis.

### 6.1 Change from the first to the second measurement in self-efficacy

Does taking mastery courses at SiT Råd contribute to increased mastery of student life, and thus to higher self-efficacy? This question represents the main research question of the present study. Comparing the values on the self-efficacy scale of the first measurement with the values of the second measurement in the experimental group, I found, as expected, a significant increase in self-efficacy (Hypothesis 1). Furthermore, no change over time was found in the control group (Hypothesis 2). The occurrence of these two results together indicates that taking mastery courses at SiT Råd indeed can contribute to higher self-efficacy and thus, in line with the used operationalization, to increased mastery of student life.

However, the descriptive statistics of the background variables revealed that the experimental group and the control group initially differed in most of the variables. This fact is a natural accompaniment of non-randomness (Mohr, 1995; Ringdal, 2013; Robson, 2011). Having the differences between the groups in mind, how can I assume that the increase in self-efficacy in the experimental group actually is due to the mastery courses and not due to essential differences between the groups? In order to control for other relevant variables, multiple linear regression analysis was used, which gave me the possibility to predict the change in self-efficacy from several independent variables and to identify the effect of one variable while keeping the other variables constant (Midtbø, 2010).

The results of the regression analysis with the change in self-efficacy as the dependent variable (appendix E) revealed that the background variables do not, within the scope of this study, have a significant impact on the change in self-efficacy. Due to the small number of

cases in the regression analysis, I can only cautiously claim that these results strengthen the internal validity and thus the assumption that it was the mastery courses that led to the change in self-efficacy. Furthermore, it has to be kept in mind that the present study only included five background variables and that there might be other relevant variables that have a significant impact on the change in self-efficacy. However, within the frame of the quasi-experimental design of the present study, all results suggest that some of the mastery courses at SiT Råd actually lead to an increase in self-efficacy and thus an increase in mastery of student life.

### **6.1.1 Generalizability and stability of self-efficacy beliefs**

When seeing the above mentioned results in connection to the theoretical views about the generalizability and stability of self-efficacy beliefs, it can first of all be said that the present study provides evidence that self-efficacy can be increased by an intervention within a quite short period of time. This result is in line with previous research about the malleability of generalized self-efficacy (Kennedy et al., 2006; Smith, 1989). Since I used a slightly adapted version of the GSE scale in the present study, I cannot fully confirm that GSE can be increased by an intervention. However, considering the fact that Miyoshi (2012) could show that even task-specific self-efficacy has an effect on GSE, it is conceivable that changes in a slightly adapted version of the GSE scale also go along with changes in GSE. This would imply that joining some of the courses at SiT Råd goes beyond simply giving the feeling of strength and confidence in one's own power with respect to a specific challenge. The courses might also have an impact on GSE, the belief in being able to deal with challenges in many different areas (Schwarzer & Jerusalem, 1995a). According to Luszczynska et al. (2005), this would be combined with adaptive, problem-focused coping with stress, high positive affect and more life satisfaction.

Even though GSE is described as quite stable (Miyoshi, 2012; Schwarzer & Jerusalem, 1995a), it is questionable if an intervention actually can lead to enduring changes in self-efficacy. According to Bandura (1988b in Bandura, 1997) powerful confirmatory experiences are necessary in order to produce such changes since people with weak self-efficacy beliefs tend to rationalize success experiences. In order to investigate the lastingness of the changes, I want to discuss the results of the regression analysis with the whole sample at T1. The results revealed that merely the fact of having former experiences with mastery courses or therapy or the fact of joining other courses/therapy at the time of the data collection has a significant impact on self-efficacy. The fact that the other background variables do not have a significant impact on self-efficacy contradicts my assumption (Hypothesis 5), but is in line with the

results of the health- and well-being survey from 2010 where no significant differences were found in the variables studied when it comes to self-efficacy in the study situation (Nedregård & Olsen, 2011).

When it comes to the significant variable *experience/participation*, it seems plausible that students with former experiences with mastery courses or therapy or who were joining other courses/therapy at the time of the data collection have higher self-efficacy than students without experience. However, the opposite is the case in the present study. From a certain perspective, one could assume that the other courses or therapy did not help. However, I would rather consider alternative explanations. When taking considerations about the stability of self-efficacy beliefs into account, then the following explanation is conceivable. The students who joined other mastery courses or therapy prior to joining SiT Råds` mastery courses could have had a higher self-efficacy right after the participation, but their self-efficacy might have decreased again after a certain period of time. This would be in line with Miyoshi's (2012) assumption that the increase in generalized self-efficacy due to therapeutic programs or teaching practice may not constitute a lasting effect, but decrease over time. Given this development, certain implications for the present study have to be derived. Even though all results indicate that some of SiT Råds` mastery courses can contribute to increased self-efficacy, the design of the present study does not permit any conclusions about the long-term effect of the courses. Implications of this limitation will be discussed later.

Besides the considerations about the stability of self-efficacy beliefs, it needs to be mentioned that the design of the present study does not allow any conclusions about which level of self-efficacy the 33 students with former experiences with mastery courses or therapy, or who joined other courses/therapy at the time of the data collection would have had without this experience. It is conceivable though that their self-efficacy would have been even lower. In addition, 28 out of these 33 students were in the experimental group. This indicates that 28 students in the experimental group have an ongoing awareness of needing help with respect to a specific challenge and that they took a necessary step in order to increase mastery of their student life.

## **6.2 Experimental groups and control group with regard to self-efficacy**

After having discussed some wider implications of the first research question, I want to draw the attention to the results regarding hypothesis three and four. In line with my expectations, the experimental group showed lower values on the self-efficacy scale than the control group on the first measurement (Hypothesis 3). As initially stated, this can be an indication for the experimental group struggling more with certain aspects in student life than

the control group. At the same time students in the experimental group seem to have “a reason” for joining the mastery courses in comparison to the control group and seem to have realized their need for help. The fact that the control group initially has higher self-efficacy can of course be due to the fact that they do not see themselves as being confronted with bigger challenges in student life. However, it is also possible that they do struggle, but that they, as mentioned before, do not perceive the issues they have in this context and thus do not realize their need for help.

When it comes to the different courses, I obtained an unexpected result. Contrary to my assumption, the ANOVA test revealed that there were no differences between the participants of the different courses in terms of the rate of change (Hypothesis 4). However, a t-test for dependent groups revealed that the difference from T1 to T2 gets significant in the courses *Facing the speech anxiety 1*, *Time management* and *Stress management*. Even though these results represent only a minor part of the findings of the present study, they might have some important implications for SiT Råd. Therefore I consider it to be appropriate to discuss them in more detail. In the following sections I will elaborate on four possible approaches for why there can be found significant changes in the three courses mentioned and why there are no significant changes in the courses *Are you shy?* and *Facing the speech anxiety 2*.

### **6.2.1 Characteristics of the courses**

First of all, it might be of interest to have a closer look at what the three courses mentioned have in common that might lead to a significant change in self-efficacy compared to the two remaining courses. *Facing the speech anxiety 1* is the course with the longest duration and includes a one-to-one counseling at the end. Since this course is amongst the courses with a significant increase in self-efficacy, one could assume that the significant change is due to the duration and individual counseling. However, even though the course *Stress management* does not include individual counseling and the courses *Time management* and *Stress management* are amongst the courses with the shortest duration, they show a significant increase in self-efficacy. The course *Are you shy?* has an even longer duration than the courses *Time management* and *Stress management*, but does not show a significant increase in self-efficacy. Thus, the amount of course days and the individual counseling do not seem to play a crucial role when it comes to increasing mastery of student life and other possible explanations have to be considered.

## 6.2.2 Characteristics of the challenge

Besides looking at the characteristics of the different courses as a predictor for changes in self-efficacy, I therefore want to direct the attention to the type of challenge. It seems plausible that challenges in time management, stress management, with daring to talk in front of a larger number of people, with holding presentations and being shy might differ in both the severity and in how much effort it takes to work with the challenge. It appears conceivable that one can fairly easy work with problems connected to time and stress management when following and applying the right techniques. Thus, this could be connected to quick successes and hence a feeling of mastering the challenge. When comparing the challenges concerning time and stress management with the challenge of being too shy, it seems plausible that shyness is more deeply rooted in the personality and harder to change. This assumption can be supported by the fact that extreme shyness has for a long time been seen as a Social Anxiety disorder that is located in the person. Henderson and Zimbardo (2010), who run a Shyness clinic, perceive this fact as highly problematic and encourage viewing shyness as a state rather than a trait. Thus, they intend to communicate to their clients that they are able to overcome their inhibitions and become more competent and comfortable in social situations. I will get back to this when reviewing mindset.

Turning back to the mastery courses, it seems conceivable that even though the participants of the *Are you shy?* course learn some behavioral techniques and are asked to expose themselves to Smalltalk situations, it might take more effort and maybe some more time to dare to apply these techniques. Thus it may take more time before one experiences a sense of achievement. A simple example might illustrate this. It seems plausible that increasing the amount of breaks while studying in order to decrease the stress level is easier and does not take as much effort as exposing oneself to more Smalltalk situations.

When it comes to the severity of having speech anxiety, it seems plausible to classify it as closer to the severity of shyness than to challenges concerning time or stress management. Both speech anxiety and shyness can be seen as a type of social anxiety. Speech anxiety can even be connected to and manifest itself through shyness (Mogård, 2005). Thus, it seems conceivable that it might take more effort, exposure training and successes to increase self-efficacy compared to the effort needed when dealing with time and stress management. The fact that *Facing the speech anxiety I* is among the courses with a significant change and that there is no significant change in *Are you shy?* is therefore surprising. However, a closer look at the two challenges reveals a possible explanation. While the challenge of speech anxiety usually occurs in settings where one has to speak in front of a larger number of people,

shyness seems to be a challenge that also arises in encounters with single individuals. Thus, it seems to be a more profound challenge that occupies more space in everyday life than speech anxiety. Despite the fact that there are increasing possibilities to work with shyness than with speech anxiety, it might nevertheless take more time to perform and notice fundamental changes.

When interpreting the significant and non-significant changes in self-efficacy, I will also take the individual values in self-efficacy at T1 and T2 into account. At T1, there is no significant difference between the courses. However, after having participated in one of the courses, significant differences can be found. Again it is *Facing the speech anxiety 1* and *Time management* that stand out. They show the highest values in self-efficacy at T2. *Are you shy?* and *Stress management* are the courses with the lowest self-efficacy at T2. These results support my assumption that one might easier experience a sense of achievement in *Time management* than in *Are you shy?*. Again, it seems as if students in the *Facing the speech anxiety 1* course benefit to a great extent from the course. However, even though the *Stress management* course shows a significant increase in self-efficacy, it is among the courses with the lowest self-efficacy at T2. This might be an indication that stress management might be a bigger challenge than time management and even than speech anxiety.

At this point one might wonder why I have not mentioned the *Facing the speech anxiety 2* course in the previous discussion. This course does not stand out in a particular way other than that it shows a non-significant change. One could assume that participants of this course already have a quite high self-efficacy since this course can be seen as a continuation of the *Facing the speech anxiety 1* course. This could have been an explanation for why self-efficacy does not increase to a great extent when the initial level is high. However, this assumption is not reflected by the results. Thus, another explanation for the non-significant change will be elaborated later.

### **6.2.3 A theoretical approach to an explanation**

While the latter approach might represent a good explanation for the significant and non-significant changes from T1 to T2, I would like to draw some lines to the theory mentioned and thus conduct a theoretical approach to an explanation.

Seeing the results in the light of the sources for self-efficacy beliefs (Bandura, 1994) indicates that certain sources of influence play a role in the courses *Facing the speech anxiety 1*, *Time management* and *Stress management*. It is probable that the sources for self-efficacy beliefs also played a role in the courses *Facing the speech anxiety 2* and *Are you shy?*. However, since the change was non-significant, I confine myself to the discussion of the



significant results. The most influential source according to Bandura (1997) is having mastery experiences. Since *Facing the speech anxiety I* consists of four course days and since the main technique of the course is exposure training, the course provides several possibilities for the students to have mastery experiences. When drawing a line to Kolb's experiential learning cycle (Kolb et al., 2001), it is conceivable that the students go through this cycle several times and thus constantly build new implications for action based on reflections that are initiated by the course. Viewed in this light, the amount of course days might play a crucial role for the *Facing the speech anxiety I* course.

Even though the source of having mastery experiences also might have an impact in the courses *Time management* and *Stress management*, the courses only consist of two course days and provide thus a smaller platform for mastery experiences. In addition the courses do not use exposure training in the same way and to the same extent as in *Facing the speech anxiety I*. While the newly achieved knowledge through the latter course can be applied immediately in the course, it is conceivable that it is not possible to apply knowledge about time and stress management to the same extent in the course. Also the second source of self-efficacy beliefs, namely having a vicarious experience (Bandura, 1994), might play a bigger role in *Facing the speech anxiety I*. The exposure trainings provide a platform for observing people similar to oneself having a success. This platform is not and can hardly be given in the courses *Time management* and *Stress management*. However, the change was significant. Thus, other sources of self-efficacy beliefs might play an even more important role in the latter courses.

It is plausible that the source of social persuasion has an important impact on self-efficacy in courses where it is difficult to apply the newly acquired knowledge immediately. Both getting convinced by the course instructor of that one can exercise control over time and stress management, but also getting convinced and inspired by other course participants could contribute to increased self-efficacy and thus to increased mastery of the respective challenge. Finally, while the fourth source of self-efficacy beliefs, the way of perceiving emotional and physical reactions (Bandura, 1994), might play a role in all the courses, it is conceivable that it is of special importance in the *Stress management* course. Attending the latter course with its focus on the characteristics of stress might lead to a different and maybe more positive perception of the students' emotional and physical arousal. Given this connection and since people often use their emotional and physical states as a basis for estimating their capabilities (Bandura, 1994), it is possible that the changed perception could have led to a higher self-efficacy.

#### **6.2.4 Characteristics of the study design**

When speculating on the reasons for significant and non-significant changes in self-efficacy, due to the small group sizes it is important to consider possible explanations connected to the study design. A closer look at the results reveals that the change in the other two courses is not far away from a significant result. Thus, it can be speculated that a bigger group might have led to a significant result. Furthermore, the present study consists of only two measurements. This implies that I cannot make a statement about the long-term effect of the courses. Even though the courses *Are you shy?* and *Facing the speech anxiety 2* do not show a significant change in the frame of the two measurements, it is possible that a significant change would have appeared a certain period of time after the last course day. I will get back to this aspect when elaborating on the limitations and directions for future research.

To sum up, several approaches to an explanation for the significant and non-significant results are conceivable. Besides considering the possibly different natures of the challenges and drawing a line to the sources for self-efficacy beliefs, the characteristics of the study design can serve as an explanation.

#### **6.3 Mindset**

The quasi-experimental design of the present study allowed me to not only have a look at the development of self-efficacy through participation at SiT Råds` mastery courses, but also at the development of mindset. This led to some surprising results. First of all, it has to be mentioned that there is a significant increase when it comes to the values on the mindset scale in the experimental group while there is no change in the control group. At the same time, the values on the mindset scale are significantly higher in the experimental group than in the control group after participating in one of the courses. These results indicate that the participation in one of SiT Råds` mastery courses can lead to moving further away from a fixed mindset towards a growth mindset. In line with the performed adaptation of the mindset scale, it implies that the students moved away from the belief that their personal characteristics are fixed towards the belief that their personal characteristics can be changed by using effort (Dweck, 2008). This movement towards a growth mindset is, according to Dweck (2000), connected to a mastery-oriented pattern by looking for challenges and continuing to show effort in the case of a failure. These results can be seen as surprising when taking into account that the courses do not explicitly have the goal of promoting a growth mindset.

When having a closer look at the different courses, it is *Facing the speech anxiety I* and *Time management* that stand out by showing a significant increase on the mindset scale after participation in the course. Similar to the discussion of self-efficacy, I will elaborate on certain approaches for an explanation for the significant and non-significant results. It is conceivable that the characteristics of the study design play a similar role for the results with respect to mindset as for self-efficacy. Thus, I won't elaborate on this aspect again and rather focus on two further approaches for an explanation.

### **6.3.1 A theoretical approach to an explanation**

One could assume that the two courses mentioned seem to have certain characteristics that stimulate a movement towards a growth mindset. At this point, it is of interest to find out which aspects of the courses could have led to this movement even though it was not explicitly intended. When considering the main idea of a growth mindset, certain similarities can be found with the background of the experiential learning theory. As mentioned above, this theory constitutes one of the theoretical foundations of SiT Råds` mastery courses. One of the assumptions of experiential learning implies that “ideas are not fixed and immutable elements of thought but are formed and re-formed through experience” (Kolb, 1984, p. 26). This assumption shows parallels to the idea behind a growth mindset. It is conceivable that the way the courses are taught implicitly communicates the belief that ideas are not fixed and immutable elements of thought which in turn could further a growth mindset. Given this connection, especially the courses *Facing the speech anxiety I* and *Time management* seem to implement the thought behind the experiential learning theory. This could be a reason for the significant movement towards a growth mindset.

Apart from the theoretical connections with the experiential learning theory, one could discuss if some of the sources of self-efficacy beliefs also can constitute sources of a growth mindset. First of all it is plausible that the fact of having mastery experiences despite the fact that one struggles with a certain challenge in student life could lead to the attitude that the challenge is surmountable by using effort. This, in turn, could contribute to the more general belief that personal characteristics can be changed by using effort. The fact of having vicarious experiences, which represents the second source of self-efficacy beliefs, might first of all have an impact on the belief that other people can change their personal characteristics. However, since vicarious experiences also have an impact on a person`s self-efficacy, it is conceivable that they also can contribute to a movement towards a growth mindset for the observing person. As mentioned above, the latter two sources might especially play a role in the *Facing the speech anxiety I* course. The third source, social persuasion, might also

contribute to a growth mindset and play a crucial role in the *Time management* course. Even though the course instructor or the other participants do not explicitly try to convince that personal characteristics are changeable, I would claim that this idea is communicated through the way the courses are taught with their focus on experiential learning. To put it in an extreme way, without this belief, the courses would lose its justification to exist. Even though the presented possible theoretical connections could be an explanation for why the participation in some of SiT Råds` mastery courses can lead to a movement towards a growth mindset, it can only be speculated why in particular the courses *Facing the speech anxiety 1* and *Time management* stand out. However, a closer look at the results reveals an interesting pattern.

### **6.3.2 A pattern in the results for self-efficacy and mindset**

When trying to find similarities between the two courses, it is actually not necessary to go all the way back to the characteristics of the two courses to realize a first similarity. When comparing the results for mindset with the results for self-efficacy, it is striking that these two courses also show a significant increase when it comes to self-efficacy. This connection leads me to the connection studied between mindset and self-efficacy. Since the investigation of this connection is based on the second research question and thus constitutes a major part of the present thesis, I will elaborate on it in the next section in detail.

### **6.4 The connection between mindset and self-efficacy**

With respect to the second research question, I intended to investigate whether a certain mindset regarding personal characteristics is correlated with the concept of self-efficacy. While I could not confirm that individuals with a high score on mindset are prone to greater change in self-efficacy when participating in one of SiT Råds` mastery courses (hypothesis 7), the results revealed a weak positive correlation between mindset at T1 and self-efficacy at T2 (hypothesis 6). This result, seen in connection with the results for self-efficacy and mindset indicates that participation in some of SiT Råds` mastery courses can lead to an increase in self-efficacy, a movement towards a growth mindset and that a growth mindset might contribute to a high self-efficacy. However, correlation analyses do not permit any conclusions about causal relations (Ringdal, 2013). Furthermore, structural boundaries of the present work did not allow the type of causal modeling analyses that could have unraveled the nature of the causal relation between self-efficacy and mindset. Nevertheless, the present work gives an indication that there is a connection between self-efficacy and mindset which partly gives a positive answer to the second research question.

Even though the present study did not investigate whether a certain mindset can be a determinant of self-efficacy beliefs, I want to emphasize the importance of promoting a growth mindset by pointing to a possible connection. According to Dweck (2006) a growth mindset goes along with the attitude that effort can lead to a change in basic qualities. Thus, it could be imagined that continuous effort gives increasing opportunity of having mastery experiences, which constitutes the most influencing source of self-efficacy beliefs (Bandura, 1997). A fixed mindset on the other hand goes along with avoiding challenges when confronted with obstacles. This rather prevents the possibility of having mastery experiences. A logical consequence would be that students with a growth mindset tend to have more mastery experiences than students with a fixed mindset. In line with Bandura (1994), this would be connected with an increase in self-efficacy. Given this connection, it is an important and positive finding of the present study that some of SiT Råds` mastery courses already seem to facilitate a movement towards a growth mindset.

Besides the possible connection mentioned, two studies about a shyness mindset support the importance of promoting a growth mindset. In addition, I perceive them as highly relevant for the *Are you shy?* course and in a broader sense for the other courses. Beer (2002) investigated implicit self-theories with respect to shy people`s goals, responses and consequences within social situations. She showed that shy *incremental theorists* (individuals with a growth mindset) were more likely to perceive social situations as a learning opportunity and that they did not tend to avoid social interaction as much as shy *entity theorists* (individuals with a fixed mindset). Furthermore Valentiner, Jencius, Jarek, Gier-Lonsway and McGrath (2013) could show that shy individuals with a growth mindset had a greater decrease in social performance anxiety symptoms through participating in an exposure-based treatment than shy individuals with a fixed mindset. They conclude that the effectiveness of cognitive-behavioral therapy can be interfered by a fixed shyness mindset.

Both the results of the present study and the two studies mentioned can be seen as a confirmation that Dweck`s (2006) theory of mindset does not only apply for the frequently examined intelligence mindset. It can also be transferred to other personal characteristics.

## **6.5 Practical implications**

Having discussed the theoretical implications of the present study, it is of interest to find out what kind of practical implications the study entails for SiT Råd and possibly other similar counseling services. In the present chapter, I showed several possible explanations for why the changes in some courses were non-significant. Given all the mentioned possible explanations and the fact that the results of the present study show a clear indication that some

of SiT Råds` mastery courses have a positive effect on mastery of student life, I tend to presume that none of the other courses are ineffective. It is nevertheless of great importance to have an ongoing awareness about how to develop self-efficacy beliefs. The possible connection between self-efficacy beliefs and mindset suggests that besides focusing on the four sources for self-efficacy beliefs, it might be of importance to facilitate a movement towards a growth mindset. The present study might have given some impulses for increasing this awareness.

Since Dweck (2006) gives some suggestions about how to promote a growth mindset, it might be of interest to discuss in more detail how SiT Råd could communicate the idea of Dwecks` (2006) mindsets. Blackwell et al. (2007) have developed an effective intervention that promotes a growth mindset in the intelligence domain. However, it is conceivable that the intervention used could be adapted and applied to SiT Råds` mastery courses. The intervention aimed to communicate that intelligence is malleable. Interesting readings, activities and discussions were used to communicate that learning leads to changes in the brain by forming new connections. In addition, it was emphasized that one can exercise control over this process. Transferring this concept to SiT Råd, it seems as if simply the fact of informing about the different mindsets and its connection to brain plasticity could raise the awareness of being able to change basic human qualities. Since the results of the present study show that some courses already lead to a growth mindset, it is conceivable that communicating the idea of the different mindsets can lead to an even clearer and possibly significant change in all the courses.

## 7. Conclusion

The results of the present study demonstrate the effectiveness of some of SiT Råds` mastery courses in terms of increased self-efficacy. In addition, a movement towards a growth mindset could be found in the experimental group. The use of a control group in the quasi-experimental design emphasizes the effectiveness of the courses. Thus, besides the positive results of the evaluation of the different courses from 2008 (Bremer & Nedregård, 2008) and the regular evaluations that SiT Råd conducts after each course, the results of the present study can be viewed as another justification for why the service was kept and developed further.

When relating the results of the present study to the introductory words about self-efficacy, then the scope of the findings gets even clearer. Research has shown that self-efficacy beliefs are an important contributor to mental health and to the prevention of mental disorders (e.g. Blazer, 2002; Southwick & Charney, 2012). The fact that the present study could show that a counseling service with a cognitive-behavioral approach can contribute to the increase of self-efficacy beliefs, has some important implications for counseling in general. Even though the present study does not permit any conclusions about the lastingness of the increased self-efficacy beliefs, the findings provide a kind of confirmation for SiT Råd and in a broader sense for other counseling services that their work pays off. It may contribute to an even bigger motivation to increase clients` self-efficacy beliefs and also work with the lastingness of these beliefs. Even though the present work did not provide information about a possible causal relationship between self-efficacy and mindset, both the theoretical background of mindset and the correlation found indicate the importance of facilitating a growth mindset.

### 7.1 Limitations

First of all, it needs to be said that the small sample size goes along with the fact that I can only generalize with caution from the sample of the experimental group to the population of students who join the examined courses. Due to the structural boundaries of the present master thesis, it was not possible to extend the period of data collection in order to reach a larger sample. In spite of the limited sample, however, the high response rate strengthens the external validity. Another limitation of the present study entails that generalization from the control group to the population of students who do not participate at SiT Råds` mastery courses is not possible since I used convenience sampling. However, the fact of having a control group in the present study contributed to ensure a methodologically strong quasi-experimental research design.

Furthermore the heterogeneity of the intervention can be seen as another limitation. Both the different durations of the courses and the fact that different course instructors gave the courses make it difficult to compare the results with each other. However, possible explanations for the results were discussed in detail in the previous chapter and put this limitation into perspective.

When it comes to the questionnaire used, one can ask the question if the slightly changed version of the GSE scale was too unspecific and if this could be another reason for the non-significant results in the courses *Facing the speech anxiety 2* and *Are you shy?*. I will point to a possible solution when it comes to directions for future research.

One of the biggest limitations of the present study can be seen in the fact that no statements about the long-term effects of the courses can be derived. It would be of interest, though, to see how the results would have looked like if a third measurement would have taken place a certain period of time after the last course day. Two different developments are possible. On the one hand it is conceivable that self-efficacy and growth mindset would have decreased again. This could be a result of overestimating the impact of the courses at the time of the second measurement which took place immediately after the last course day. While the intense course days might have led to a boost in self-efficacy, the sudden loss of the supportive environment of the courses might be connected to a decrease in self-efficacy and growth mindset. On the other hand it is possible that self-efficacy and growth mindset increase even more and also show a significant increase in the courses *Facing the speech anxiety 2* and *Are you shy?*. Not before the end of the whole course do the students get a proper chance to use their new knowledge and the techniques. Thus, they get more time to reflect and realize whether the course helped. However, the fact that the present study was conducted under a limited time frame did not allow a follow up study. Thus, one can only speculate about possible developments. This limitation leads me to possible directions for future research.

## **7.2 Future research**

In order to study the long term effect of the courses at SiT Råd, future research should make use of longitudinal designs with at least three measurements. In addition it would be useful to use a larger sample. Furthermore Luszczynska et al. (2005) recommend using the original GSE scale in combination with a situation-specific self-efficacy scale. Thus, one could find out if the belief in being able to deal with challenges in many different areas is actually changed through participation in one of SiT Råds` mastery courses. In addition a situation-specific respectively challenge-specific self-efficacy scale would make it possible to



study changes concerning the respective challenge and not just concerning general challenges in study life.

When it comes to the connection between mindset and self-efficacy, causal modeling analyses should be used in order to unravel the nature of the causal relation between the two concepts.

### **7.3 Final comment**

Referring to the initial presented quote by Martin Seligman (2002), I want to conclude that SiT Råd makes an important contribution to not only repairing damage, but to focus on building strengths and resilience.



## 8. Literature

- Adler, A. (1979). The progress of mankind. In H.L. Ansbacher & R.R. Ansbacher (Eds.), *Superiority and Social Interest: A Collection of Later Writings* (3. ed, pp. 23-28). New York: W. W. Norton & Company Inc.
- Baird, G. L., Scott, W. D., Dearing, E., & Hamill, S. K. (2009). Cognitive self-regulation in youth with and without learning disabilities: Academic self-efficacy, theories of intelligence, learning vs. performance goal preferences, and effort attributions. *Journal of Social and Clinical Psychology, 28*(7), 881-908.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman (Ed.), *Encyclopedia of mental health*. San Diego: Academic Press, 1998).
- Bandura, A. (1997). *Self-efficacy. The Exercise of Control*. New York: W.H. Freeman and Company.
- Bandura, A. (2008). An agentic perspective on positive psychology. In S. J. Lopez (Ed.), *Positive psychology: Exploring the best in people* (pp. 167-196). Westport: Greenwood Publishing Group.
- Beer, J. S. (2002). Implicit self-theories of shyness. *Journal of Personality and Social Psychology, 83*(4), 1009-1024.
- Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child development, 78*(1), 246-263.
- Blazer, D. (2002). Self-efficacy and depression in late life: a primary prevention proposal. *Aging & Mental Health, 6*(4), 315-324.
- Bremer J., & Nedregård, T. (2008). *Sluttevaluering SiT Råd*. Oslo: TNS Gallup.
- Ceci, S. J., & Williams, W. M. (Eds.). (1999). *The nature-nurture debate: The essential readings*. Massachusetts: Blackwell Publishers.
- Clausen, T., & Johansen, V. (2012). Cronbachs alfa. In T. Eikemo & T.H. Clausen (Eds.), *Kvantitativ analyse med SPSS* (2. ed., pp. 268-279). Trondheim: Tapir.
- Cozby, P.C. (2009). *Methods in Behavioral Research*. New York: McGraw Hill Higher Education.

- Dahl, I. (2008). *Gruppas betydning på veien mot økt mestring : en studie av tre studenters opplevelse av å delta på kurs for mestring av taleangst, med fokus på gruppas innflytelse i mestringsprosessen* (Master thesis, NTNU). I. Dahl, Trondheim.
- de Leeuw, E., D., Hox, J., J., & Dillman, D., A. (2008). *International Handbook of Survey Methodology*. New York: Taylor & Francis Group.
- Dweck, C. S. (2000). *Self-Theories. Their role in Motivation, Personality, and Development*. Philadelphia: Taylor & Francis Group.
- Dweck, C. S. (2006). *Mindset-The new psychology of success*. New York: Ballantine Books.
- Dweck, C. S. (2008). Can personality be changed? The role of beliefs in personality and change. *Current Directions in Psychological Science*, 17(6), 391-394.
- Dweck, C. S. (2010). Even geniuses work hard. *Educational Leadership*, 68(1), 16-20.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological Inquiry*, 6(4), 267-285.
- Erdley, C. A., Loomis, C. C., Cain, K. M., Dumas-Hines, F., & Dweck, C. S. (1997). Relations among children's social goals, implicit personality theories, and responses to social failure. *Developmental Psychology*, 33(2), 263-272.
- Erikson, E. H. (1980). *Identity and the life cycle*. New York: WW Norton & Company.
- Field, A. (2005). *Discovering statistics using SPSS* (2. ed.). Oxford: Sage.
- Fuglesang, H. (2014, 24.05.). Når studentbobla blir et bur. *NRK ytring*. Retrieved from <http://www.nrk.no/ytring/nar-studentbobla-blir-et-bur-1.11731803>
- Gerhardt, M. W., & Brown, K. G. (2006). Individual differences in self-efficacy development: The effects of goal orientation and affectivity. *Learning and Individual Differences*, 16(1), 43-59.
- Grendstad, N. M. (1995). *Å lære er å oppdage* (4. ed.). Oslo: Didakta Norsk Forlag AS.
- Grilli, L., & Rampichini, C. (2007). Multilevel factor models for ordinal variables. *Structural Equation Modeling*, 14(1), 1-25.
- Halvorsen, K. (2008). *Å forske på samfunnet. En innføring i samfunnsvitenskapelig metode*. Oslo: J.W. Cappelens Forlag.

- Harris, A. H. S., Thoresen, C. E., & Lopez, S. J. (2007). Integrating Positive Psychology Into Counseling: Why and (When Appropriate) How. *Journal of Counseling & Development*, 85(1), 3-13.
- Henderson, L., & Zimbardo, P. (2010). Shyness, Social Anxiety, and Social Anxiety Disorder. In S. Hofmann & P. DiBartolo (Eds.), *Social anxiety: Clinical, developmental, and social perspectives* (2. ed., pp. 65-92). London: Elsevier.
- Hernandez, L. M., & Blazer, D. G. (Eds.). (2006). *Genes, behavior, and the social environment: moving beyond the nature/nurture debate*. Washington, D.C.: National Academies Press.
- Hirsch, S. (2011). "Men nå tror jeg at det går...": selvpåfatning og endringsprosesser : en kvalitativ intervjustudie, med fokus på erfaringslæring i to studenters opplevelse av å delta på kurs for mestring av taleangst (Master thesis, NTNU). S. Hirsch, Trondheim.
- Huisman, M. (2000). Imputation of missing item responses: Some simple techniques. *Quality and Quantity*, 34(4), 331-351.
- Imsen, G. (2005). *Elevens verden. Innføring i pedagogisk psykologi* (4. ed.). Oslo: Universitetsforlaget.
- Ivey, A. E., D'Andrea, M. J., & Ivey, M. B. (2012). *Theories of counseling and psychotherapy: A multicultural perspective* (7. ed.). Thousand Oaks: Sage.
- Jerusalem, M., & Schwarzer, R. (1992). Self- efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self- Efficacy: Thought control of action* (pp. 195-213). Washington, DC: Hemisphere.
- Johannessen, E., Kokkersvold, E., & Vedeler, L. (2012). *Rådgivning: tradisjoner, teoretiske perspektiver og praksis* (3 ed.). Oslo: Gyldendal Norsk Forlag AS.
- Johansen, V., & Clausen, T. H. (2011). Promoting the entrepreneurs of tomorrow: entrepreneurship education and start-up intentions among schoolchildren. *International Journal of Entrepreneurship and Small Business*, 13(2), 208-219.
- Karlsen, M.I., Rønning Lund, M., & Longva, A.-M. (2014). *Personal correspondence with counselors at SiT Råd*. 14.01.2014.
- Kennedy, P., Taylor, N., & Hindson, L. (2006). A pilot investigation of a psychosocial activity course for people with spinal cord injuries. *Psychology, Health & Medicine*, 11(1), 91-99.

- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice-Hall.
- Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions. In R. J. Sternberg & L. F. Zhang (Eds.), *Perspectives on thinking, learning, and cognitive styles* (pp. 193-210). New Jersey: Lawrence Erlbaum.
- Langdridge, D. (2006). *Psykologisk forskningsmetode. En innføring i kvalitative og kvantitative tilnæringer*. Trondheim: Tapir Akademisk Forlag.
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: multicultural validation studies. *The Journal of psychology*, 139(5), 439-457.
- Martocchio, J. J. (1994). Effects of conceptions of ability on anxiety, self-efficacy, and learning in training. *Journal of Applied Psychology*, 79(6), 819-825.
- McLeod, J. (2001). *An Introduction To Counselling* (2 ed.). Buckingham: Open University Press.
- McLeod, J. (2013). *An Introduction To Counselling* (5. ed.). Berkshire: Open University Press.
- Meichenbaum, D. (1995). The evolution of a Cognitive-Behavior Therapist. In J. K. Zeig (Ed.), *The Evolution of Psychotherapy. The Third Conference* (pp. 95-106). New York: Brunner/Mazel.
- Midtbø, T. (2010). *Regresjonsanalyse for samfunnsvitere* (3. ed.). Oslo: Universitetsforlaget.
- Miyoshi, A. (2012). The stability and causal effects of task-specific and generalized self efficacy in college. *Japanese Psychological Research*, 54(2), 150-158.
- Mogård, R. (2005). Ta ordet - før du forlater universitetet! Et forebyggende kurs for studenter ved Universitetet i Oslo. *Tidsskrift for norsk psykologforening*, 42(7), 603-610.
- Mohr, L. B. (1995). *Impact analysis for program evaluation* (2. ed.). Thousand Oaks: Sage.
- Muñoz, R. F., Mrazek, P. J., & Haggerty, R. J. (1996). Institute of Medicine report on prevention of mental disorders: Summary and commentary. *American psychologist*, 51(11), 1116-1122.

- Muthén, B., & Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology*, 38(2), 171-189.
- Nedregård, T., & Olsen, R. (2011). *Studentenes helse- og trivselsundersøkelse SHoT 2010*. Oslo: TNS Gallup.
- Pallant, J. (2010). *SPSS Survival Manual: A Step by Step Guide to Data Analysis using the SPSS program* (4. ed.). Berkshire: Open University Press.
- Retningslinjer NESH (2006). Forskningsetiske retningslinjer for samfunnsvitenskap, humaniora, juss og teologi. Retrieved 11.12.2013, from <http://www.etikkom.no/retningslinjer/NESHretningslinjer/06>
- Ringdal, K. (2001). *Enhet og mangfold – Samfunnsvitenskapelig forskning og kvantitativ metode*. Bergen: Fagbokforlaget.
- Ringdal, K. (2013). *Enhet og mangfold – Samfunnsvitenskapelig forskning og kvantitativ metode* (3.ed.). Bergen: Fagbokforlaget.
- Robson, C. (2011). *Real world research* (3.ed.). Padstow: TJ International Ltd.
- Rogers, C. (1961). *On becoming a person: a therapist's view of psychotherapy*. Boston: Houghton Mifflin.
- Rotter, J.B. (1954). *Social Learning and Clinical Psychology*. New Jersey: Prentice-Hall.
- Røysamb, E., Schwarzer, R., & Jerusalem, M. (1998). *Norwegian Version of the General Perceived Self-Efficacy Scale*. Retrieved 15.01.2014, from <http://userpage.fu-berlin.de/~health/norway.htm>
- Schwarzer, R., & Jerusalem, M. (1995a). Generalized Self-Efficacy scale. In J. Weinman, S. Wright & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35–37). Windsor: NFER-NELSON.
- Schwarzer, R., & Jerusalem, M. (1995b). *The General Self-Efficacy Scale (GSE)*. Retrieved 15.01.2014, from <http://userpage.fu-berlin.de/~health/engscal.htm>
- Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.
- SiT (2014). *SiT mestringskurs*. Retrieved 15.01.2014, from <https://www.sit.no/kurs#!mestringskurs>

- Skaalvik, E. M., & Skaalvik, S. (2013). *Skolen som læringsarena: selvoppfatning, motivasjon og læring* (2. ed.). Oslo: Universitetsforlaget.
- Smith, R. E. (1989). Effects of coping skills training on generalized self-efficacy and locus of control. *Journal of Personality and Social Psychology*, *56*(2), 228-233.
- Southwick, S. M., & Charney, D. S. (2012). The Science of Resilience: Implications for the Prevention and Treatment of Depression. *Science*, *338*(6103), 79-82.
- Stevens, J. P. (1992). *Applied multivariate statistics for the social sciences* (2. ed.). Hillsdale, New Jersey: Erlbaum.
- Turning point projekt. [Picture] (2014). Retrieved from <http://v1391.vanager.de/wino2/?q=node/41>
- Valtiner, D. P., Jencius, S., Jarek, E., Gier-Lonsway, S. L., & McGrath, P. B. (2013). Pre-treatment shyness mindset predicts less reduction of social anxiety during exposure therapy. *Journal of anxiety disorders*, *27*(3), 267-271.
- Westad Brandshaug, S., Bredesen, T., Hagen, E., Haugland Andersen, N., Helgesen, H. C., Holen, A., Garberg Rånes, H., Sortland, B., & Veine, S. (2014). *Ekspert i team 2014 Gjennomføring av landsbyen*. NTNU, Trondheim: Skipnes Kommunikasjon.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, *56*(3), 407-415.
- Wooldridge, J.M. (2006). *Introductory Econometrics: A Modern Approach* (3. ed.). Florence, KY: South-Western College Publishing.



## 9. Appendix

### Appendix A: Reliability analyses

#### Self-efficacy at T1

Cronbach's alpha = 0.76

	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9
Item 4	1	.63	.34	.33	<b>.15</b>	.51
Item 5		1	.35	.30	<b>.17</b>	.52
Item 6			1	.20	<b>.17</b>	.31
Item 7				1	.31	.40
Item 8					1	.34
Item 9						1

$N = 93$

#### Self-efficacy at T2

Cronbach's alpha = 0.83

	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9
Item 4	1	.66	.39	.47	.31	.53
Item 5		1	.46	.51	.47	.59
Item 6			1	.31	.44	.43
Item 7				1	.37	.41
Item 8					1	.48
Item 9						1

$N = 93$

### Mindset at T1

Cronbach's alpha = 0.93

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	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8
Item 1	1	.72	.65	.62	.66	.62	.61	.54
Item 2		1	.60	.56	.72	.61	.65	.60
Item 3			1	.69	.69	.68	.76	.68
Item 4				1	.64	.70	.59	.54
Item 5					1	.66	.73	.65
Item 6						1	.58	.50
Item 7							1	.69
Item 8								1

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$N = 93$

### Mindset at T2

Cronbach's alpha = 0.94

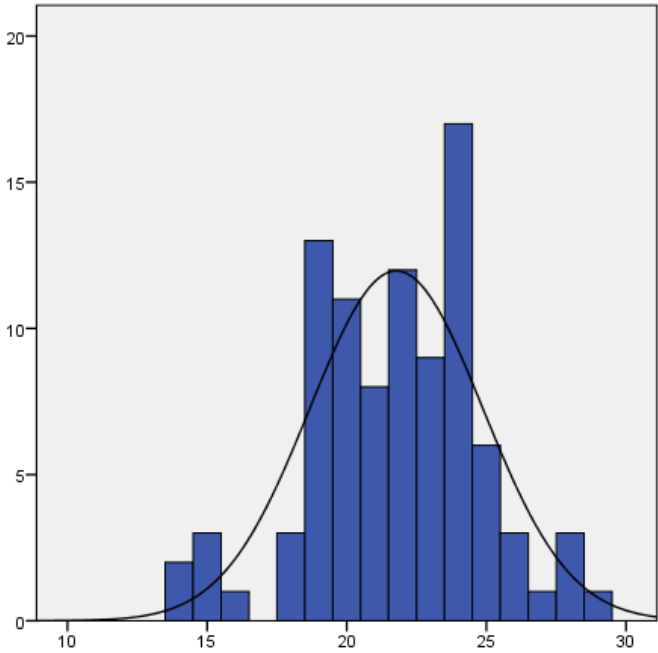
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	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8
Item 1	1	.62	.67	.76	.58	.78	.60	.66
Item 2		1	.55	.48	.55	.59	.56	.52
Item 3			1	.67	.77	.74	.80	.77
Item 4				1	.63	.80	.68	.70
Item 5					1	.75	.77	.72
Item 6						1	.75	.75
Item 7							1	.73
Item 8								1

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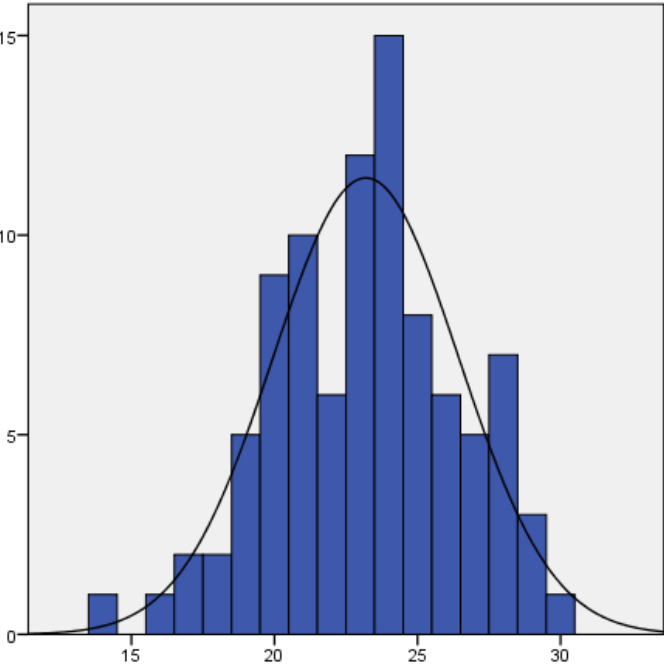
$N = 92$

**Appendix B: Univariate analyses**



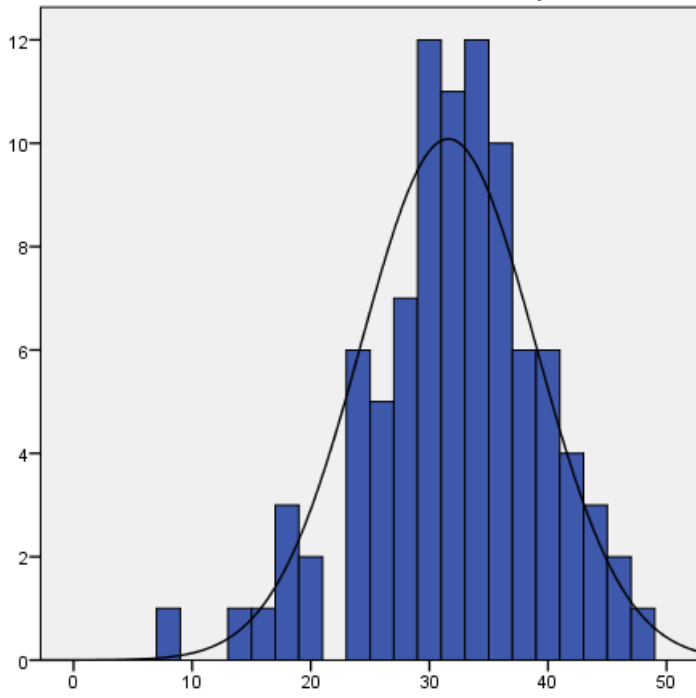
**Figure** *Distribution for self-efficacy at T1.*

***N = 93***



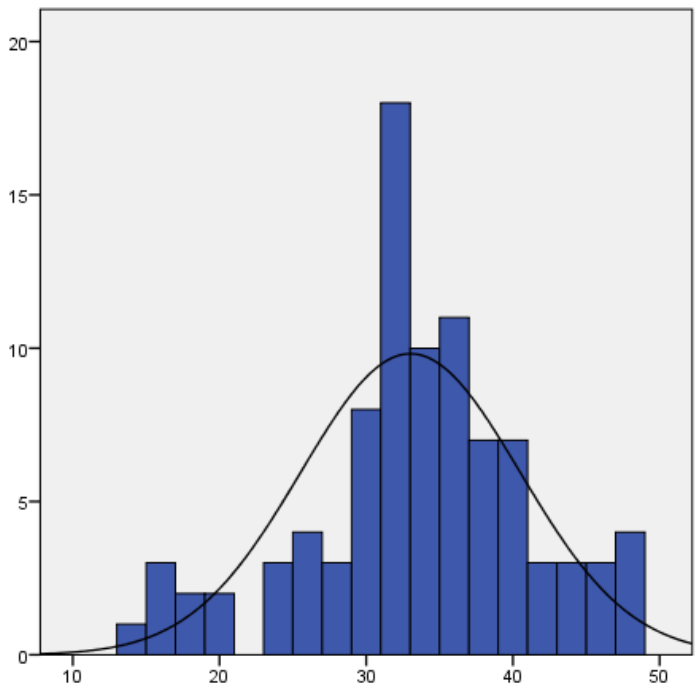
**Figure** *Distribution for self-efficacy at T2.*

***N = 93***



**Figure** *Distribution for mindset at T1.*

**$N = 93$**



**Figure** *Distribution for mindset at T2.*

**$N = 92$**

## Appendix C: Results for non-parametric tests

### Self-efficacy

	Pretest Mean	Posttest Mean	Mean difference (Post-Pre)	p-value ( <b>Wilcoxon signed-rank test</b> )	N
Control group (EiT)	23.2	22.5	-0.7	.07	39
Experimental group (all)	20.8	23.7	2.9	<b>.00**</b>	54
p-value ( <b>Mann-Whitney- U-test</b> )	<b>.00**</b>	.10	<b>.00**</b>	-	-
Facing the speech anxiety 1	21.3	24.9	3.6	<b>.00**</b>	16
Facing the speech anxiety 2	21.0	23.1	2.1	.06	7
Are you shy?	19.9	21.8	1.9	.08	10
Time management	21.5	25.2	3.6	<b>.00**</b>	13
Stress management	19.5	21.9	2.4	<b>.03*</b>	8
p-value ( <b>Kruskal Wallis test</b> )	.57	<b>.05*</b>	.41	-	-

\*  $p < .05$ , \*\* $p < .01$

## Mindset

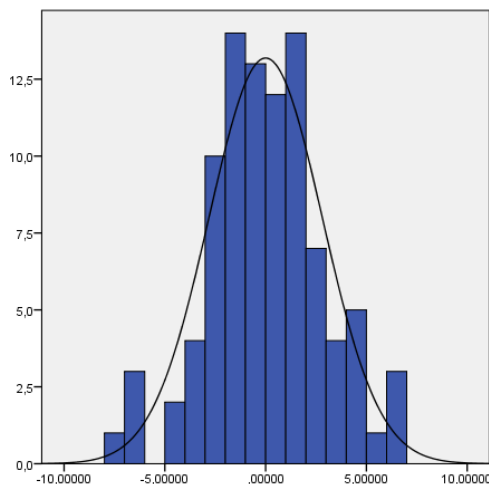
	Pretest Mean	Posttest Mean	Mean difference (Post-Pre)	p-value ( <b>Wilcoxon signed-rank test</b> )	N
Control group (EiT)	29.9	30.1	0.2	.96	39
Experimental group (all)	32.8	35.2	2.4	<b>.00**</b>	53
p-value ( <b>Mann-Whitney- U-test</b> )	.12	<b>.00**</b>	<b>.01*</b>	-	-
Facing the speech anxiety 1	32.2	35.0	2.8	<b>.04*</b>	15
Facing the speech anxiety 2	36.3	37.3	1.0	.55	7
Are you shy?	31.7	34.3	2.6	.10	10
Time management	33.0	35.9	2.9	<b>.01*</b>	13
Stress management	31.9	33.5	1.6	.14	8
p-value ( <b>Kruskal Wallis test</b> )	.37	.72	.82	-	-

\*  $p < .05$ , \*\* $p < .01$

## Appendix D: Tests of assumptions of the linear regression

For the multivariate linear regression I tested the assumptions of normally distributed residuals, homoscedasticity, linearity, the absence of multicollinearity and the absence of influential cases.

### 1. The assumption of normally distributed residuals

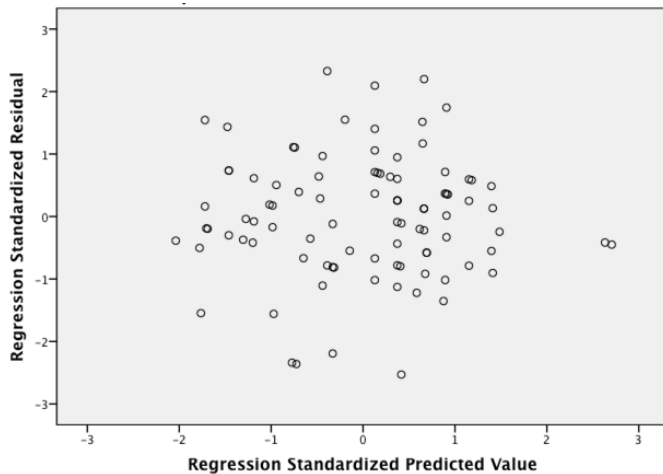


**Figure** *Normally distributed residuals*

This assumption refers to the fact that the residuals in the model should be random, normally distributed variables with a mean of 0. It implies that the differences between the model and the observed data should be zero or close to zero. Differences greater than zero only occur occasionally (Field, 2005). Both the figure above and the Shapiro-Wilk test show that the residuals are normally distributed ( $p > .05$ ) (if  $p < .05$ , the distribution is significantly different from a normal distribution) (Field, 2005). Thus, I can conclude that the first assumption is met.

### 2. The assumption of homoscedasticity and linearity

The assumption of homoscedasticity refers to the fact that the variance of the residual terms should be constant respectively the same at each level of the predictor variable. The opposite is called heteroscedasticity and refers to variances that are very unequal. Linearity refers to the assumption that the mean values of the outcome variable for each increment of the predictors are located on a straight line (Field, 2005). In order to test these assumptions, I created a plot of standardized residuals against standardized predicted values. The points in the figure below are randomly and evenly spread around zero throughout the plot which indicates that the assumption of homoscedasticity and linearity are met (Field, 2005).



**Figure** *Plot of standardized residuals (Y) against standardized predicted values (X)*

### **3. The assumption of the absence of multicollinearity**

Perfect multicollinearity corresponds to a perfect linear relationship between two or more of the predictors. This implies that it becomes impossible to obtain unique estimates of the regression coefficients. Thus, the assumption of the absence of multicollinearity refers to the fact that the predictor variables should not correlate too highly (Field, 2005). A tolerance value below .1 indicates a serious problem with multicollinearity, while a tolerance value below .2 indicates a potential problem (Menard, 1995 in Field, 2005). The tolerance test below shows that none of the variables are close to these values. This implies not having a problem with multicollinearity. Thus, also the third assumption is met.

	Tolerance
Men	.78
Age	.53
Other institutions	.57
Years of study	.47
Experience/participation	.91

### **4. The assumption of the absence of influential cases**

By testing the absence of influential cases, one can find out whether the regression model shows stability across the sample or whether the existence of a few influential cases leads to a biased model. In order to test this assumption, I tested Cook`s distance which is a measure of the overall influence of a case on the model. A value greater than 1 is an indication for an influential case (Field, 2005). All the values are below 1.



Furthermore I tested leverage which measures the potential influence of the observed value of the outcome variable over the predicted values (Field, 2005). One can calculate the average leverage value by filling in the number of predictors ( $k$ ) and the number of participants ( $n$ ) in the following formula:  $(k+1)/n$ . Thus, I get the following average leverage value:  $(5+1)/93 = 0.06$ . I follow Stevens` (1992) decision rule for identifying cases having undue influence. Cases with values lower than three times the average ( $3(k+1)/n$ ) do not have undue influence. All the cases in the regression model are lower than 0.18 and thus within the boundary of three times the average.

As a last test of influence I tested DFBeta which corresponds to the difference between a parameter estimated using all the cases and estimated when excluding one case. SPSS calculates DFBeta for every case and for each of the parameters in the model. Absolute values greater than 1 for the standardized DFBeta values are an indication for an undue influence over the regression parameters (Field, 2005). All the values are below 1.

Finally, I can conclude that also the fourth assumption is met.

## Appendix E: Multivariate linear regression with the change in self-efficacy

**Table Regression analysis, blockwise, dependent variable: change in self-efficacy (T2-T1)**

	<u>Model 1</u>			<u>Model 2</u>		
	B	SE	Beta	B	SE	Beta
Constant	2.93**	0.33		-0.88	3.36	
Control group	-3.59**	0.51	-.59	-3.43**	0.72	-.57
Men				-0.59	0.61	-.09
Age				0.23	0.17	.16
Other institutions				-0.57	0.72	-.09
Years of study				-0.34	0.30	-.15
Experience/participation				-0.10	0.61	-.02
Adjusted R <sup>2</sup>	.34			.33		

Reference categories: Experimental group, women, Gløshaugen, no experience/participation  
*N* = 93, \*\**p* < .01, \**p* < .05

## **Appendix F: Information sheet**

### **Forespørsel om deltakelse i forskningsprosjekt**

#### **”Mestring av studiehverdagen gjennom mestringskurs på SiT Råd”**

##### **Bakgrunn og formål**

Formålet med studien er å undersøke om deltakelse på SiT Råd sine mestringskurs bidrar til økt mestring av studiehverdagen. Prosjektet er en mastergradsstudie ved instituttet for voksnes læring og rådgivningsvitenskap. Prosjektet gjennomføres i samarbeid med SiT Råd.

Utvalget i testgruppa vil være deltakere av mestringskurs på SiT Råd. Utvalget i kontrollgruppa består av studenter på NTNU.

##### **Hva innebærer det å delta i studien?**

Datainnsamling i testgruppa vil skje gjennom en spørreundersøkelse som vil bli utdelt på første og siste kursdag. Kontrollgruppa deltar ikke på kurs, men vil få utdelt samme spørreundersøkelse på samme tidspunkt. Det vil ta 5-10 minutter å svare på spørreundersøkelsen. Spørsmålene vil omhandle indirekte personopplysninger som alder og kjønn og konsepter tilknyttet mestring av studiehverdagen. Data vil bli analysert ved hjelp av et statistisk program.

##### **Hva skjer med informasjonen om deg?**

Alle personopplysninger vil bli behandlet konfidensielt. Kun student (forsker), veileder og biveileder vil ha tilgang til personopplysningene. Hver deltaker tildeles et referansenummer som er koblet til deltakerens navn for slik å kunne knytte spørreundersøkelsen fra første og siste kursdag til samme deltaker. Navnet vil imidlertid ikke bli registrert i data. Kun studenten som gjennomfører studien (forsker) vil ha tilgang til navnelista.

Deltakerne vil ikke kunne gjenkjennes i publikasjon.

Prosjektet skal etter planen avsluttes 15.06.14. Datamaterialet skal anonymiseres rett etter at data fra det første målingstidspunktet blir knyttet til data fra det andre målingstidspunktet.

Navnelista vil deretter slettes.

##### **Frivillig deltakelse**

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli slettet. Det vil ikke ha noen konsekvenser, dersom du ikke vil delta i studien eller senere velger å trekke deg.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med Juliane Heess (tel.:45174774), Jonathan Reams ((735) 91651, veileder) eller med Vegard Johansen ((735) 96238, biveileder).

Studien er godkjent av Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

## Appendix G: Questionnaire experimental group

### ”Mestring av studiehverdagen gjennom mestringskurs på SiT Råd”

#### 1. Er du mann eller kvinne?

Mann	Kvinne

#### 2. Hva er din alder? \_\_\_\_\_ år

#### 3. Hvor studerer du?

Dragvoll	Gløshaugen	HiST	DMMH	Øya

#### 4. Hvor lenge har du studert (år)?

1 år	2 år	3 år	4 år	5+ år

#### 5.-13. Ta stilling til følgende påstander om deg med utgangspunkt i

#### UTFORDRINGER I STUDIEHVERDAGEN din.

		Helt uenig	Ganske uenig	Verken uenig eller enig	Ganske enig	Helt enig
		(1)	(2)	(3)	(4)	(5)
5.	Jeg klarer alltid å løse vanskelige problemer hvis jeg prøver hardt nok.					
6.	Hvis noen motsetter seg meg, så kan jeg finne måter for få det som jeg vil.					
7.	Det er lett for meg å holde fast på planene og målene mine.					
8.	Jeg er trygg på at jeg vil kunne takle uventede hendelser på en effektiv måte.					
9.	Jeg har ressurser til å takle uventede situasjoner.					
10.	Jeg kan løse de fleste problemer hvis jeg går inn for det.					
11.	Jeg beholder roen når jeg møter vanskeligheter.					
12.	Hvis jeg havner i en knipe, så finner jeg vanligvis en vei ut.					
13.	Samme hva som hender så er jeg vanligvis i stand til å takle det.					

**14.-21. Ta stilling til følgende påstander.**

		Helt uenig (1)	Uenig (2)	Ganske uenig (3)	Ganske enig (4)	Enig (5)	Helt enig (6)
14.	Du har et visst sett med personlige egenskaper, og det er lite å gjøre med dette.						
15.	Dine personlige egenskaper er noe med deg som er veldig vanskelig å endre.						
16.	Uansett hvem du er, så kan du endre dine personlige egenskaper betydelig.						
17.	For å være helt ærlig, så kan du egentlig ikke endre dine personlige egenskaper.						
18.	Du kan alltid endre dine personlige egenskaper vesentlig.						
19.	Du kan lære nye ting, men du kan egentlig ikke endre dine personlige egenskaper.						
20.	Uansett hvilke personlige egenskaper du har, kan du alltid endre de en god del.						
21.	Du kan til og med endre dine mest grunnleggende personlige egenskaper i betydelig grad.						

**22. Deltar du i andre mestringskurs eller terapi?**

Ja	Nei	Nei, men har gjort det tidligere

## Appendix H: Questionnaire control group

### ”Mestring av studiehverdagen gjennom mestringskurs på SiT Råd”

#### 1. Er du mann eller kvinne?

Mann	Kvinne

#### 2. Hva er din alder? \_\_\_\_\_ år

#### 3. Hvor studerer du?

Dragvoll	Gløshaugen	HiST	DMMH	Øya

#### 4. Hvor lenge har du studert (år)?

1 år	2 år	3 år	4 år	5+ år

#### 5.-13. Ta stilling til følgende påstander om deg med utgangspunkt i

#### UTFORDRINGER I STUDIEHVERDAGEN din.

		Helt uenig	Ganske uenig	Verken uenig eller enig	Ganske enig	Helt enig
		(1)	(2)	(3)	(4)	(5)
5.	Jeg klarer alltid å løse vanskelige problemer hvis jeg prøver hardt nok.					
6.	Hvis noen motsetter seg meg, så kan jeg finne måter for få det som jeg vil.					
7.	Det er lett for meg å holde fast på planene og målene mine.					
8.	Jeg er trygg på at jeg vil kunne takle uventede hendelser på en effektiv måte.					
9.	Jeg har ressurser til å takle uventede situasjoner.					
10.	Jeg kan løse de fleste problemer hvis jeg går inn for det.					
11.	Jeg beholder roen når jeg møter vanskeligheter.					
12.	Hvis jeg havner i en knipe, så finner jeg vanligvis en vei ut.					
13.	Samme hva som hender så er jeg vanligvis i stand til å takle det.					

**14.-21. Ta stilling til følgende påstander.**

		Helt uenig (1)	Uenig (2)	Ganske uenig (3)	Ganske enig (4)	Enig (5)	Helt enig (6)
14.	Du har et visst sett med personlige egenskaper, og det er lite å gjøre med dette.						
15.	Dine personlige egenskaper er noe med deg som er veldig vanskelig å endre.						
16.	Uansett hvem du er, så kan du endre dine personlige egenskaper betydelig.						
17.	For å være helt ærlig, så kan du egentlig ikke endre dine personlige egenskaper.						
18.	Du kan alltid endre dine personlige egenskaper vesentlig.						
19.	Du kan lære nye ting, men du kan egentlig ikke endre dine personlige egenskaper.						
20.	Uansett hvilke personlige egenskaper du har, kan du alltid endre de en god del.						
21.	Du kan til og med endre dine mest grunnleggende personlige egenskaper i betydelig grad.						

**22. Deltar du på et av mestringskursene til SiT Råd?**

Ja	Nei

**23. Deltar du i andre mestringskurs eller terapi?**

Ja	Nei	Nei, men har gjort det tidligere



## Appendix I: Approval from NSD

Norsk samfunnsvitenskapelig datatjeneste AS  
NORWEGIAN SOCIAL SCIENCE DATA SERVICES



Oslo Høfdingsgate 28  
N-0407 Bergen  
Narvik  
Tel: +47 58 26 21 17  
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nsd@nsd.no  
www.nsd.no  
Orgnr: 980 321 884

Jonathan Reams  
Institutt for voksnes læring og rådgivningsvitenskap NTNU

7491 TRONDHEIM

Vår dato: 08.01.2014

Vår ref: 36733 / 2 / HIT

Deres dato:

Deres ref:

### TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 17.12.2013. Meldingen gjelder prosjektet:

36733	<i>Increased mastery of student life through mastery courses at SiT Rdd?</i>
Behandlingsansvarlig	NTNU, ved institusjonens øverste leder
Daglig ansvarlig	Jonathan Reams
Student	Juliane Heess

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i melde skjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 15.06.2014, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Vigdís Namtvedt Kvalheim

Hildur Thorarensen

Kontaktperson: Hildur Thorarensen tlf: 55 58 26 54

Vedlegg: Prosjektvurdering

Kopi: Juliane Heess [juliane.heess@gmail.com](mailto:juliane.heess@gmail.com)

Dokumentet er elektronisk produsert og godkjent ved NSD's rutiner for elektronisk godkjenning.

Aktiveringstjeneste / Data / Offis

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