



**UiT** The Arctic University of Norway

Department of psychology

**Procrastination: The Role of Interest:**

A quantitative study of individual interest role in student's procrastination level

**Jesper Kraugerud**

Master's thesis in psychology - May 2022

# PROCRASTINATION AND THE ROLE OF INDIVIDUAL INTEREST

# PROCRASTINATION AND THE ROLE OF INDIVIDUAL INTEREST

## Foreword

To my supervisor, Prof. Frode Svartdal. I was entranced when you pitched your projects around procrastination and considered it an honor when you agreed to be my supervisor. I know I have not been the easiest student to guide, jumping from one idea to the next. Needless to say, your guidance has been invaluable. From avoiding pitfalls, to finding a path that is achievable yet interesting. You have been an amazing supervisor from the start to the end.

To Ingebjørg Mai Olaussen, I was lucky enough that our project was similar enough that we could collaborate in creating a questionnaire together. Thanks to you we were able to create a much better questionnaire.

To Torstein and Amund, my dear offices comrades and to Mikael. Amund, you have brought great relief when my moods were at their worst and helped me stay on track. It was great to discuss and throw ideas to each other. Mikael, your outside perspective was an enormous boon to my master's degree. Torstein, from the first day of our bachelor's degree to the last day of our master's degree, you been there for me. I joked in the past that you might consider thanking me in a speech one day for my assistance I have given you, but the truth is that none of it would be possible without you. From a shoulder to lean on, to a strong critic, rightfully deserved, I might add you have supported me in my journey so far.

To my super visor in life, Janne Kraugerud, my dear mother deserves a mention as well. Both with pushing me into taker bolder choices in life and giving a sense of perspective when I was lost in my own thought, you have set me on the right path, and aided me when I strayed unwillingly

# PROCRASTINATION AND THE ROLE OF INDIVIDUAL INTEREST

JESPER KRAUGERUD

-----

Jesper Kraugerud

Frode Svartdal

-----

Frode Svartdal

# PROCRASTINATION AND THE ROLE OF INDIVIDUAL INTEREST

# PROCRASTINATION AND THE ROLE OF INDIVIDUAL INTEREST



**Procrastination, The role of interest: A quantitative study of individual interest role  
in student's procrastination level**

PSY-3900

Master Thesis in Psychology

Spring 2022

**Jesper Kraugerud**

Supervisor: Prof. Frode Svartdal

Department of Psychology - Faculty of Health Sciences

UiT The Arctic University of Norway

### Sammendrag

Prokrastinering beskriver et fenomen hvor folk velger å utsette med å jobbe med en oppgave til tross for at de er klar over potensielle negative konsekvenser. Prokrastinering er assosiert med negative konsekvenser knyttet til prestasjon, velvære og fysisk og mental helse. En potensiell løsnings forskning har noe neglisjert i prokrastineringsforskningen er Interesse. Av forskning som finnes på dette emnet, indikerer at interesse sannsynligvis er negativt knyttet til prokrastinering. En skala som ikke er testet nok ennå, er individuell interesse. Vi testet om vi kunne få lignende resultater som tidligere forskning med bruk av individuell interesseskala. Vi testet også en ny modell inspirert av tidligere forskning. I den nåværende studien var deltakerne 546 studenter som svarte på et nettbasert spørreskjema. Vi forventet at individuell interesse skulle ha en negativ relasjon til prokrastinering og andre faktorer som er kjent for å være forbundet med prokrastinering, spesielt innsatskostnader, mangel på energi og oppgaveaversjon. Resultatene viste at prokrastinering hadde en signifikant negativ sammenheng med innsatskostnader ( $r = -0,36$ ), mangel på energi ( $r = -0,22$ ) og oppgaveaversjon ( $r = -0,36$ ). Innsatskostnads sammenheng til prokrastinering er et nytt funn. Resultatet viste også støtte til den nye modellen. Den viktigste implikasjonen var at individuell interesse som ikke har blitt testet godt nok sammen med andre variablene, hadde en negativ sammenheng med prokrastinering ( $r = -0,30$ ). Praktiske implikasjoner av disse funnene er at tiltak som har vist seg å øke den enkelte interesse, sannsynligvis vil være relevante kandidater for fremtidige intervensjonsstudier med sikte på å redusere prokrastinering.

*Nøkkel ord:* Prokrastinering, interesse, mangel på energi, energi kostnader, oppgave aversjon



### Abstract

Procrastination describes a phenomenon where people voluntarily delay working on a task despite being aware of potential negative consequences. It's been associated with negative consequences related to performance, well-being, and physical and mental health. One potential solution research has somewhat neglected in procrastination research is Interest. What research exist on this topic indicates that interest is likely negatively related to procrastination. A scale that has not been properly tested yet is individual interest. We tested if we could get similar results as previous research with the use of individual interest scale. We also tested a new model inspired by previous research.

In the present study the participants were 546 students answering an online questionnaire. We expected individual interest to have a negative relation to procrastination and other factors known to be associated with procrastination, specifically effort cost, lack of energy, and task aversion. The results showed procrastination had a significant negative correlation with effort cost ( $r = -0,36$ ), lack of energy ( $r = -0,22$ ), and task aversion ( $r = -0,36$ ). Effort cost relation to procrastination is a new finding. The result also showed support to the new model. The most important implication was that individual interest which have not been properly tested before in relation to the other variables had a negative correlation to procrastination ( $r = -0,30$ ). Practical implications of these findings are that measures that have been proven to increase individual interest will likely be relevant candidates for future intervention studies aimed at reducing procrastination.

*Keywords:* Procrastination, interest, lack of energy, effort cost, task aversion

## **Procrastination, the role of interest: A quantitative study of individual interest role in student's procrastination level**

### **Introduction**

Why do people delay doing important tasks? Why do people delay working on projects, answering important emails, or even delay paying credit card bills which lead to money loss? Ignoring the cases where there might be a clear advantage to delay, it seems to be mostly a type of irrational behaviour. After all, most of those tasks won't go away. Having less time to do an important task before a deadline should most likely lead to further problems, yet many decide to delay. What drives people to make such choices?

### **Definition and overview of consequences related to procrastination**

Researchers have been looking into this problem over many years using the term procrastination. Procrastination can be defined as voluntarily delaying an intended course of action despite expecting to be worse off (Steel, 2007). Procrastination chronically affects about 15-20% of adults (Steel, 2007). Procrastination is even more prevalent among the student population. At least half of the student population procrastinate on important tasks such as exams and weekly assignments (Schouwenburg, 2004) and approximately 50% of the student population procrastinate habitually (Svardal 2020).

This is a matter of concern since procrastination has been shown to be associated with multiple negative consequences. Several studies have linked procrastination to decline in both physical and mental health (Sirois et al. 2003; Stead et al. 2010). For example, a study involving Norwegian university students found that even moderate procrastination scores are associated with an increase in depression and anxiety scores (Botnmark et al., 2014). Another example of a study that looks into negative consequences is found in Tice and Baumeister (1997) longitudinal

study of procrastination. They found that people with high procrastination score had better health outcomes at the start of the semester but in the latter half of the semester they reported more symptoms of physical illness ( $r = .65$ ), more stress ( $r = .68$ ), and more visit to health care professionals ( $r = .37$ ) than non-procrastinators. When they looked at the combined data for the entire semester, they found that procrastinators overall suffered significantly more symptoms ( $r = .46$ ) and stress ( $r = .26$ ). In a qualitative study students reported that the consequences of them procrastinating were feelings of laziness, fatigue, stress, anxiety, lost opportunities to truly understand the topic, and even a large degree of guilt (Schraw et al. 2007). All these effects might explain why people believe their procrastination has a negative impact in the overall satisfaction of their life (Botnmark et al., 2014; Steel, 2010; Svartdal, 2015). Procrastination has also been connected to reduced performance in academic settings (Zarick, L. M., and Stonebreaker, R. 2009) and lower grades (Steel, 2007). However, in comparisons to the other consequences of procrastination, the consequence on academic result seems to be mixed (Kim and Seo, 2015).

Because procrastination appears to be such a problematic phenomenon, explaining why and how procrastination occurs is important research. In the next section of this paper, we will discuss relevant psychological variables that can potentially explain what motivates people to procrastinate in an academic setting. Those variables are (1) Individual interest, (2) task aversion, (3) lack of energy and (4) effort cost. Following that we will present the main research in this correlation study: what role does interest, especially individual interest, play in the procrastination level among students.

### **Individual and situational interest**

Interest is defined by Hidi and Renninger (2006) as the psychological state of engaging or the predisposition to reengage with types/classes of objects, events, or ideas over time.

Interest is recognized as a positive emotion strongly associated with approach motivation (Silvia, 2008).

Interest share similar traits to enjoyment, however, although interest and enjoyment tend to be associated with positive affect and are correlated (e.g., Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000), evidence from both neuroscience and interest research suggests that measuring interest solely on the basis of positive feelings (e.g., liking, enjoyment) may not be sufficient (Berridge et al., 2009; Ernst & Spear, 2009; Harackiewicz et al., 2002; Turner & Silvia, 2006).

Among the different categories of interest studied in research, two types have been the primary focus of educational research: situational and individual interest. The terms situational and individual interest were first used primally to distinguish between the ways in which researchers identified and measured interest (Krapp et al., 1992; Renninger, 1990). This distinction has since been verified empirically multiple times (e.g., Ainley et al., 2002; Harackiewicz et al., 2002; Mitchell, 1993; Renninger & Hidi, 2002). In this study we will focus on the measurement of individual interest. However, due to their similarities and how they are related to each other, an explanation of their differences and similarities are in order. Situational interest is a type of interest defined as focused attention and the affective reaction triggered in the moment by environmental stimuli, which may or may not last over time (Hidi, 1990; Hidi & Bard, 1986). Individual interest is a type of interest defined as a person's relatively enduring predisposition to reengage with certain types of content over time (Renninger, 2000).

A good way to differentiate between the two of them can be seen with a case scenario. A person who is bored waiting in their friend's room, and end up picking up a book they see, despite knowing nothing about the topic beforehand it can be said that their interest was triggered by the environment (situational interest). However, if the person who were bored decided to go through their friend's books and picks up a book, and they recognise the book has relevance to a topic that they have been trying to understand for some time and feels a surge of excitement. In this case it can be said that they have an individual interest in the topic.

An important trait of individual interest is that it is internally driven, however it is not exclusively so. People with high individual interest can also experience situational interest through environmental stimuli (Renninger and Hidi 2002).

It is an important thing to note that situational and individual interest are closely related. An established model of interest that look at their relation is the 4-phase model of interest by Hidi and Renninger (2006). According to that model, interest can be divided into four different phases. Two of them are related to situational interest and the other two are related to individual interest. They are in order triggered situational interest, maintained situational interest, emerging individual interest, and well-developed individual interest. Phases in the development of interest are considered to represent a form of cumulative, progressive development in cases where interest is supported and sustained (Renninger & Hidi, 2002). Each phase in the model is characterized by varying amounts of affect, knowledge, and value. The earlier phases of interest for example might be considered to be primarily an emotion and to have minimal knowledge requirements (Hidi, 2006; Reeve, Jang, Hardre, & Omura, 2002). In the later phases, as interest develops and deepens, knowledge and value develop concurrently (Renninger & Hidi, 2002).

### **Interest Role in Academics**

Why should we in research care about studying interest, especially in academic settings?

One reason researching interest is considered useful is that educational research indicates that interest play an important role in boosting students' performance in different ways.

Situational interest has been shown to have a positive influence on cognitive performance such as reading comprehension (Alexander & Jetton, 1996), enabling integration of information with prior knowledge (Kintsch, 1980), and even help enhance levels of learning (Schraw, Bruning, & Svoboda, 1995; Schraw & Dennison, 1994). Individual interest meanwhile has been found to have a positive impact on different aspects of learning such as attention, recognition, and recall (Renninger & Wozniak, 1985); persistence and effort (Krapp & Lewalter, 2001; Renninger & Hidi, 2002); academic motivation (Harackiewicz & Durik, 2003; U. Scheifele, 2001); and levels of learning (Renninger et al., 2002; Renninger & Hidi, 2002). Furthermore, both situational and individual interest has been found to have a positive influence on cognitive performance (Ainley et al., 2002) and in promoting engagement (Hidi et al., 2004; Sansone & Thomann, 2005; Reeve et al, 2015).

Interest has been shown to be a great resource to utilize in the academic environment, but how does interest affect procrastination? Would high interest among students in their courses assist against procrastination to the same extent it helps with related issues such as concentration and motivation?

### **Increasing Interest among Students**

If high interest is related to lower procrastination, a potential solution might be found in interventions that increase interest. An important question to raise then is whether it is possible to increase interest reliably. If it turns out that this is not the case, then looking into interest's relation to procrastination would have limited practical value, with time better spent on looking into other variables. We argue based on research that it is possible to increase interest, both by ourselves and with support from others

The opinion that you cannot help other people increase their own interest is a surprisingly common belief among educators. According to them people either have or don't have any interest in any given topic. Such beliefs might lead educators to not recognize that they could make a significant contribution to the development of students' academic interests (Lipstein & Renning, 2006). Such misconceptions likely owe their origin to vocational interest research that show the stability of existing interests (cf. Roberts & Del Vecchio, 2000). Findings from the large-scale group surveys of vocational interest research can be misunderstood to suggest that if interest is not present, it cannot develop. Such studies simply record the presence of interest; they do not address whether, how, and why interests develop nor how individual interest (an example of an enduring type of interest) can be encouraged to develop.

A good example of research that look at conceptualisation of interest is Deci and Ryan (2000) who identifies three basic psychological needs that have shown an association with development of interests. These three needs are feelings of competence, feelings of autonomy and feelings of social relatedness. These three variables are according to Deci and Ryan (2000) essential in interest development. These interest researchers such as Krapp (2002a, 2002b) even goes as far as to claim that interest can only be realized by satisfying those three needs. These

three needs for interest development have support from studies that have shown a relation between interest and a feeling of autonomy (Reve et al, 2002), competence (Azevedo,2006), and social relatedness (Muller & Louw, 2004). Studies done by Minnaert et al. (2007) showed that all three needs are related to task interest. The higher the feelings of autonomy, competence and social relatedness are, the higher the task interest is. There is also research that shows how interest of school-age students can develop with support from the tasks and/or the organization of the learning environment (Barron, et al, 2009; Frenzel et al, 2010; Guthrie et al., 2006; Nolen, 2007; Rotgans & Schmidt, 2011a).

Research also exists on how to develop and maintain later and more advanced phases of interest such as individual interest. Despite individual interest being a type of interest that can to some extent be self-generated and self-maintained, especially well-developed individual interest (Lipstein & Renninger, 2006; Renninger et al., 2004; Sansone & Smith, 2000), there are several studies that show that outside sources can assist in development as well. Research shows that emerging individual interest at the very least requires some external support. This can be done with the use of role models, peers or with experts who with support can contribute to increased understanding of the topic of interest (Krapp & Lewalter, 2001; Renninger, 2000). Individual interest development may also benefit from tasks or environments that challenge and provide opportunities (Nolan, 2006; Renninger, 2000; Renninger & Shumar, 2004). A learner with emerging individual interest may also need encouragement from others to persevere when confronted with difficulty (Carey et al, 2002; Renninger & Shumar, 2002).

Overall, these studies supports that there are several different avenues and tools both students themselves and academics can utilize in order to increase interest.



**Situational vs Individual vs General Interest:**

There are several reasons why it is more appealing to look at situational interest in comparison to individual interest in research. Situational interest is after all a type of interest that is more heavily affected by the environment in comparison to individual interest and therefore easier to manipulate (Hidi and Renninger, 2006). Not only that, but as discussed earlier, situational interest is a necessary step in order to develop individual interest and should not be overlooked. However, there are a couple of issues on relying solely on situational interest as a practical solution to problems related to procrastination.

Research shows that situational interest can at times be an unreliable form of interest. It may or may not last over a long time, tend to fall and rise quickly and is quite reliant on the environment and emotions (Hidi and Renninger, 2006). Ainley sums up the weakness of situational interest in the international Encyclopedia of education (2010). As Ainley describes it there are a lot of ways to increase situational interest, however the problem then becomes sustaining the students' interest, so they engage with the learning content. Very often that interest rapidly wanes, and often disappears when what follows does not match the enticing first impressions.

Well-developed individual interest meanwhile has been shown be able to sustain long term endeavours (Izard & Ackerman, 2000), and is not reliant on the environment to the same extent and can be self-generated (Hidi & Renninger, 2011). For example, in Harackiewicz et al. (2000) study, they demonstrated that factors that maintained college student interest were better predictors of continuing interest than factors that only triggered their interest. Furthermore, individual interest seems to possess a couple of qualities than can be practical in solving

problems related to procrastination. Research shows that in certain instances individual interest can overcome negative affect such as frustration with the use of focus that accompanies well-developed individual interest (Kim, Lee, & Bong, 2009; Renninger, 2000). With that in mind individual interest seems to be a better and more stable long-term tool as a solution to procrastination.

Generic measures of interest are an example of an interest measure with its own limitations as well. Many conceptualizations of interest are not developmental in the sense that they do not detail change between earlier and later phases of interest development. Instead, they focus on issues that can be related to one or another phase of interest and/or that apply to all phases in the development of interest. Whether information gathered is specific to an earlier or a later phase of interest is not assessed and can be difficult to assume (Hidi & Renninger, 2011). This could potentially cause trouble when you look into the rise of interest as a solution to problems.

When it comes to looking into strategies to increase interest it might be more practical to have an idea of which phase of interest a person has reached, and what specific needs people in those phases have in order to maintain and develop interest further. What works in earlier phases might not work as well in later phases. For example, in earlier phases research show that external support is most effective in developing interest such as offering choice in tasks (Flowerday & Schraw, 2003), promoting a sense of autonomy (Deci, 1992), innovative task organization, support for developing the knowledge that is needed for successful task completion, and building a sense of competence (Hidi, 2001, Renninger & Hidi, 2002). However, in the later phases of development internal support is likely to be more effective. This can be done by encouraging students to develop their own questions (Schoenfeld, 1992) or by encouraging them

to find a reason to be interested and finding ways to enhance the likelihood of continuing to pursue the interest subject. Those conceptualizations of interest that have tried to address change, have tended to do so by using the distinction between situational and individual interest that forms the basis of the Four- Phase Model (Hidi & Renninger. 2011). In other words if you are interested in looking into the development of interest it might be wise to look at situational and individual interest

### **Interest relation to Procrastination**

Now that we have shown that there exists research that support several avenues to increase interest, the next logical question to look into is whether there is any scientific basis to believe that there is a connection between interest and procrastination. Is there any research that can support such a conclusion? We argue that there is research that gives support to this conclusion, however there are also gaps related to the lack of use of individual interest which we believe need to be filled before we can draw any final conclusion on the use of interest.

There are a couple of studies that touch on the relation between procrastination and interest. For example, in the interview study by Schraw et al. (2007), participants where asked open-ended questions such as “are there situations where you are more likely to procrastinate?” and “what causes you and others to procrastinate?”. Low personal interest was the most important self-reported cause of procrastination. Less interest translated into more procrastination. Students tended to delay assignments they did not enjoy working on. This could potentially explain why procrastination is so common in higher education as empirical studies have repeatedly shown a decline in students’ interest for school subject matters as students’ levels of schooling increase (e.g., Denissen et al., 2007; Hidi, 2000). An issue with research

containing such open-ended questions about interest is that it can be difficult to truly know how such reported interest fit with modern models of interest. When students talk about interest, what type of interest are they talking about? Is it simply general interest or would it fall under other type of interest such as situational or individual interest?

An example of a study concerning procrastination under the lens of modern interest psychology is Wolters and Benzion (2013) who tested different motivational regulation strategies. They found that strategies meant to increase situational interest had a negative correlation of  $r = -.11$  with procrastination but, the correlation not significant. It might be because improving situational interest was relied upon less often than any other form of motivational regulation in the experiment ( $t_s > 9.37, p < .001$ ). A study that does find significant negative correlation between situational interest and procrastination was conducted by Danya et al (2014). Their results indicated that situational interest around their course had a negative correlation of  $r = -.27$  ( $p < .001$ ) with academic procrastination. These types of studies are useful in supporting a relation between interest and procrastination; however, there are a couple of weaknesses on relying on data based on situational interest alone which we have discuss earlier. Even with that in mind the study by Danya et al.'s (2014) is a step in the right direction. After all, according to Renninger and Hidi (2006) you first need situational interest before you can develop individual interest. That situational interest is related to reduced procrastination to some extent is a good sign that individual interest can be related to reduced procrastination. After all, individual interest develops after people already have a situational interest and retains some of its qualities such as retained knowledge, value, and emotions.

An example of a study that used a type of interest closer to individual interest is Gröpel and Steel (2008) who used a scale known as interest enhancement witch focus on people's

ability to enhance their own interest. Interest enhancement can be described as a form of intrinsic regulation, which is the most self-determined of motivational states. (Ryan & Deci, 2009).

Gröpel and Steel argue that the focus on more intrinsic interest is a relative uninvestigated process. There has been some investigation by the educational field, which confirms its importance, but they emphasize ways that others rather than the self can create interest (Hidi & Renninger, 2006; Schraw & Lehman, 2001). Research on self-regulatory interest enhancement has been the focus, rather than the periphery, of only a handful of authors and papers (e.g., Green-Demers et al., 1998; Sansone, Wiebe, & Morgan, 1999). Gröpel and Steels (2008) results support that interest enhancement is negatively correlated with procrastination level with a negative correlation of  $r = -.29$  ( $p < .001$ ). Their findings are promising; however, it is uncertain whether interest enhancement can qualify as individual interest. Like interest enhancement individual interest focus on intrinsic regulation, but it also contains other aspects such as focus on contained knowledge and contained value of the interest subject (Renninger, 2000), instead of assuming interest enhancement and individual interest measure the same type of interest. It is likely better to view them as similar but different models of interest.

Based on the existing research literature it is likely that interest is related to procrastination. However, it is uncertain how individual interest, which is one of the categories of interest that's been the primary focus of educational research (Hidi & Renninger, 2011), relate to procrastination. Individual interest has not yet been sufficiently tested before unlike other categories of interest. We argue that individual interest, because of its close relation to situational interest, will have a similar relationship to procrastination as other categories of interest such as situational interest and interest enhancement and will also be negatively correlated with procrastination.

### **Individual Interest relation to Task Aversion**

When it comes to the role of individual interest in procrastination research an interesting question that arise is whether individual interest is able to affect variables related to procrastination. As procrastination is an example of an avoidance-oriented variable, we would expect procrastination to be positively related to avoidance-related variables. We are interested in looking into whether individual interest is able to affect other avoidance-oriented variables in a similar fashion as procrastination. We would expect interest as an example of an approach-oriented variable would be negatively associated with those type of variables. Depending on their relation it could affect future interventions.

Task aversion is one example of an avoidance-oriented variable that appear to be related to procrastination. Task aversion refers to actions that one finds unpleasant and want to avoid. One seeks to avoid aversive stimuli, and consequently, the more aversive the situation becomes, the more likely one is to avoid it (e.g., procrastinate). The extent to which people dislike a task may be influenced by a variety of personal characteristics such as boredom, proneness, and low intrinsic motivation. However, if people do find a task unpleasant, research has indicated that they are more likely to put it off /procrastinate (Steel, 2007). We argue task aversion is likely positively related to procrastination based on previous research

There are several research articles that shown a relation between task aversion and procrastination. For example, Blunt and Pychyl (2000) found that boredom, frustration, and resentment (which are stable components of aversiveness) were associated with higher levels of procrastination. This has been repeated in other studies, which has shown that task

characteristics found to increase the likelihood of procrastination are tasks being boring, tedious, unattractive, or difficult (Klingsieck, 2013b). Time sampling as well as use of daily logs show that the more students dislike a task, the more they procrastinate (Steel, 2000). Results of qualitative interview studies of students who procrastinate such as Grunschel et al. (2013), Klingsieck et al. (2013) and Visser et al. (2018) show support to the relation between task aversion and procrastination. A study done by Tice, Bratslavsky & Baumeister (2001) show how people procrastinate more when they are in a bad mood even when they know the source of their mood is artificial. Procrastination has been shown to be particularly susceptible to how aversive, especially boring, we find tasks, with an average correlation of .40 (Gröpel & Steel, 2015). One of the main beneficial aspects of procrastination reported by students in interview studies such as Schraw's et al. (2007) is that it contributes with the relief of boredom which is an important aspect of task aversion.

Research seems to show support of the idea that procrastination is heavily related to how aversive we view a task, but what happens when a variable reduces the effect of that aversion? What effect does that have on procrastination? There are several articles that point to different ways interest is able to reduce the effect of task aversiveness, however, similar to the situation with procrastination, there is a research gap in how individual interest affect task aversion.

A study that shows support to a negative relation between general interest and task aversion is done by Song et al. (2019). According to them a lack of interest is not only a lack of something, but also functions as a variable that may make tasks more aversive. Their findings indicate that interest is a negative predictor of task aversion ( $\beta = -0.31, p < 0.001$ ) when it comes to study-related work. In order to measure interest, they used the Student Motivation in the Learning Environment Scale (SMILES; Bong et al., 2012) based on interest literature (Hidi

and Harackiewicz, 2000; Hidi and Renninger, 2006). However, despite being inspired by Hidi and Renninger (2006), it is difficult to determine based on the score of the SMILES scale how they would fit on the four-phase model. It is uncertain whether high scores on the SMILES scale indicate either situational or individual interest.

There is also research that point to different types of interest giving a type of resistance to the effect of task aversion. Kim et al. (2009) investigated the interactive effects of task interest and competence on brain activation during negative feedback. The findings indicated that interest played a buffering role against the potential detrimental effects of negative feedback. This kind of buffering has been mentioned by interest researchers using measures other than brain activation as well such as Katz et al (2006) and Tsai et al (2008) who used self-report in the form of questionnaires. As mentioned earlier, individual interest appears to possess some sort of buffering effect that can be used to overcome negative affect (Kim, Lee, & Bong, 2009; Renninger, 2000). Well-developed interest specifically has been found to help people persevere, even in the face of frustration (Renninger&Hidi,2002).

This buffering effect can arguably be used to explain studies like Sansone, et al (1992) who showed that people who worked on a boring task with perceived reason to continue such as health benefits were able to use strategies to make performance of boring tasks more interesting in order to complete more tasks. For example, by changing how they think about or perform the tasks. The result showed that interest enhancing strategies were positively correlated with subsequent likelihood of performing the boring task. The result of Sansone et al. (1992) has been replicated by Sansone et al (2001). In both of these studies individuals where able to use interest enhancing strategies as a buffering role against the detrimental effect of boredom which is an important aspect of task aversion and procrastination. In the Sansone et al. (1992) study



interest was measured in the form of a couple statements such as "I would describe this task as very interesting", "I think this is an uninteresting task" (reverse scored), and "This task is fun to do". The Sansone et al (2001) study did not measure interest directly. Instead, they measured strategies where people tried different strategies to increase interest and combat boredom. A good way to view interest's relation to task aversion and procrastination is that interest serves as an approach-oriented counterweight to avoidance-oriented feelings of frustration, boredom, and confusion (Katz, et al, 2006; Renninger, 2000; Silvia, 2010).

Based on the existing research literature it is likely that task aversion is related to procrastination. It is also likely that interest play some role in reducing the effect of task aversion. However, similar to the case with procrastination research, it is uncertain how individual interest relate to task aversion. We argue that individual interest based on its qualities and relation to other forms of interest, will have a similar relationship to task aversion as other categories of interest and will also be negatively correlation with task aversion

### **Individual Interest relation to Effort Cost and Energy**

We already discussed the role task aversion might have on interest relation and its relation to procrastination. Two other variables that appear to be related to procrastination as fellow avoidance-oriented variables are individual's energy level and effort cost. Depending on their relevance they could contribute to alter future interventions. Effort cost is about how every task has its own cost when it comes to subjective evaluation of the effort required to complete tasks. Most task consume mental or physical energy to some extent (Eccles et al., 1983; Gaspard et al., 2015). This plays an important role in decision making as effort together with time are typically considered as the primary costs when people make decisions (Botvinick et al., 2009; Vassena et al., 2014).

Empirically there is support of a positive relation between lack of energy and effort cost and procrastination and task aversiveness. Tiredness is one of the top three reasons students give for putting off work (Strongman and Burt, 2000), and approximately 28% of students indicate that lack of energy is a primary source for procrastination (Kachgal et al, 2001). As Steel (2007) reports, task aversiveness is linked to low energy, where it becomes painful to initiate tasks when tired. Song et al. (2019) research findings indicate effort cost positively predicts task avoidance. Gröpel and Steel (2008) found a strong correlation between procrastination and energy level with a large diverse sample of participants. They found support for the hypothesis that the direct effect of interest enhancement on procrastination is at least partially mediated by a lack of energy with data analysis that support that conclusion. Based on this we would expect that when individuals lose energy or get more tired, they will be more likely to procrastinate.

Mental energy is an important resource used in many tasks related to self-control. For example, concentrating on a boring task is something that can often only be maintained through self-control involving global inhibition of task-irrelevant emotions and cognitions (Kuhl, 1994). In general, mental energy is used in many impulse restraining or delaying acts such as thought suppression or the act of volition (Kuhl, 2000; Baumeister and Tierney 2011). Unfortunately, this energy is quite limited, and without it, people's ability to self-control diminishes. A consequence of this effect is that as individuals get more tired, they will more likely put things off/procrastinate (Kuhl, 2000). As Steel (2007) explains, the more tired we get, the more aversive work gets viewed as and the more difficult it becomes to find sufficient motivation to continue striving. This might explain why effort is perceived as costly (Eccles et al., 1983) and why people tend to avoid participate and instead procrastinate in a task, when it requires a high amount of effort (Inzlicht et al., 2018).

There are also several articles that point to different ways interest is able to affect lack of energy and effort cost, with some clues about how individual interest fit in. However, similar to the other variables it is unclear to what extent individual interest is able to affect effort cost and lack of energy in comparison to other interest scales used. For example, research has showed that interest has an influence on perceived effort cost. When a task is associated with feeling of enjoyment, the effort associated with the task may be viewed as less costly (Inzlicht et al., 2018). There are also studies like Song et al (2019) where they found that interest (based on the SMILES scale) negatively predicts effort cost ( $\beta = -0.42, p < 0.001$ ).

This is likely due to two notable functions of interest: resource replenishment and effortless attention. Resource replenishment of interest was tested by Thomann et al. (2011) who tried to figure out how people were able to engage in tasks viewed as interesting even when their resources were depleted. They discovered that interest has a resource replenishment function. Participants who had been given an interesting task persisted longer in the subsequent tasks than participants who had been asked to complete either positive emotional task or more emotion neutral task. Interestingly, this result was observed only when the participants' energy had already been depleted before performing the second, emotionally stimulating task. However, they were unable to identify the underlying mechanism behind this effect. In the study they measured interest by making the participants assess ratings of interest in the form of 6 items e.g., "I would describe this task as very interesting"). This can likely be qualified as general interest as Thomann et al. (2011) only focused on interest as a single type of positive affect and did not focus on the different types of interest and their different qualities. Because of that it is difficult to place interest as measured in the study as either in the situational or individual interest category. Another example of a study that show similar relation between energy and interest is

Gröpel and steel (2009) they found that interest enhancement had negative correlation of  $r = -.46$  ( $p < 0.001$ ) with lack of energy. Interest enhancement appeared to have a type of enhancement that affected the increase of energy and, in turn, facilitated initiation of actions.

Research has also shown how individuals can quickly and effortlessly focus their attention on a target task when its characteristics, such as novelty and relevance, provoke their interest (McDaniel et al., 2000; Hidi et al., 2004; Hidi and Ainley, 2008). Of special note is Well-developed individual interest a type of interest that have been shown to produce effort that feels effortless (Lipstein & Renninger, 2006; Renninger & Hidi, 2002; Renninger et al., 2004).

There is also research like Gröpel and steel (2008) who found with the use of hierarchical regression that interest enhancement correlation on procrastination was likely mediated by lack of energy. Persons low in interest enhancement reported low level of energy and, as a result, scored high on procrastination. Conversely, interest enhancement affected the increase of energy and, in turn, facilitated initiation of actions.

Based on the existing research literature it is likely that both effort cost and lack of energy has positive relation to task aversion and procrastination as avoidance-oriented variables. it is also likely that interest as an avoidance-oriented variable has negative relation to both lack of energy and effort. However, it is uncertain how individual interest relate to effort cost and lack of energy in comparison to other scales of interest. We argue that individual interest based on its qualities such as effortless attention will have a similar relationship to lack of energy and effort cost as other categories of interest and will also be negatively correlated.

### **The present study**

An issue with current research of the two separate fields of interest research and procrastination research is that there is a lack of research of certain types of interest used in modern interest research. You can see that when it comes to how research around procrastination and task aversion talks about interest in the form of more generic terms such a task interest or just simply interest. Gröpel and Steel (2008) attempts to fix this problem by focusing on interest enhancement. This paper attempts to investigate this problem by looking at the effect of individual interest. More precisely this paper investigated whether individual interest can be used as a predictor of aversive behavior (procrastination) and different variables that make schoolwork more aversive such as lack of energy, effort cost and task aversion.

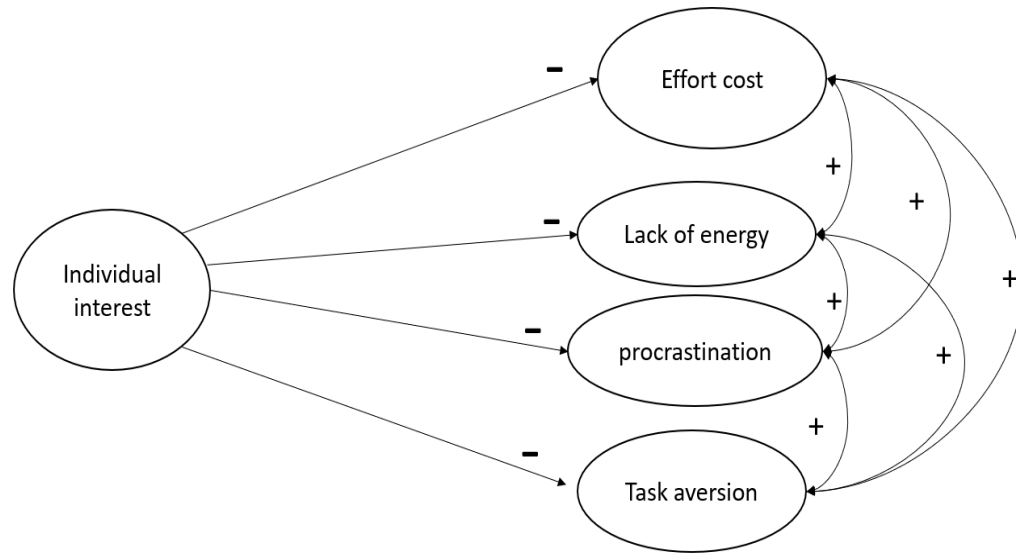
### **Hypotheses**

Based on previous research, our hypothesis are as follows: Individual interest as an approach-oriented variable will function as a negative predictor of lack of energy, effort cost, task aversion, and procrastination(H1). We also hypothesize that lack of energy, effort cost, task aversion and procrastination as avoidance-oriented variable would be positively correlated with each other(H2).

The hope is, by studying the role of both positive (individual interest) and negative motivators (lack of energy, effort cost, task aversion) together, we could deepen our understanding of the psychological mechanisms of students' procrastination.

### **Figure 1.**

*The Hypothesized SEM Model of the Relation Between Individual Interest, Effort Cost, Lack of Energy, Task Aversion, and Procrastination*



**Methods**

**Participants**

We collected data from adult Norwegian university students. All participants were recruited through mail, flyers with QR codes and social media invitations among students at Norwegian universities. Of the 470 participants, 122 identified as male, 343 as female, and 5 as other. Respondents consisted of 546 students (118 males, 423 females, 5 other) who answered in Norwegian. Of those students 75 did not complete the questionnaire and were excluded from further analysis, leaving a sample of 470 participants. Of those 470 students, 107 them used the QR code to access the questionnaire. Ages ranged from 18 to 27 years (mean = 23.11 years, meadian22). The school background of the participants varied. 447 were full-time students and 15 were part-time students. Study experience ranged from 0 to 6 years or more (mean = 1.76 years/ median= 2 years). Average hours used to study both in, and out class ranged from 0 to more than 25h (mean hour in class= 3.31, mean hours out of class=3.83)

## Materials

**The individual interest questionnaire (IIQ).** In order to measure interest students, have for their courses we selected the IIQ, developed by Rotgans (2015). It was designed to generally be able to measure interest in diverse subject domains across different educational disciplines. The scale consists of 7 items. We asked the participants to assess their individual interest in relation to their course with statements such as “I have had interest in my course since I was little”. Hancock's coefficient H was calculated by Rotgans (2015) as a measure of the construct reliability for latent variable systems which represents an adequate alternative to the conventional Cronbach's alpha (Rotgans (2015). The IIQ scale has produced a reliable coefficient H of over .80 in several domains (History, Chemistry, and Geography) which are well above the recommended cutoff point of .70. which suggests that the IIQ can reliably and validly be used in a variety of subject domains (Rotgans. 2015). The participants responded on a 5-point Likert scale ranging from *does not fit at all* (1) to *fits very well* (5).

**Effort cost scale.** In order to measure effort, cost we decided to use the effort cost scale developed by Gaspard et al (2015). It was designed to measure the perceived consequences of engaging in a task. The scale consisted of 4 items. We asked participants to assess the effort cost of studying in general in their course with statements such as “studying drains a lot of my energy”. It has been tested in a study of Song et al (2019), where the scale produced a reliable Cronbach's  $\alpha$  coefficient ( $\alpha = 0.87$ ) in their study. The participants responded on a 5-point Likert scale ranging from *does not fit at all* (1) to *fits very well* (5).

**Lack of Energy Scale.** In order to measure lack of energy we selected the lack of energy scale originally used in the Norwegian 2018 students' health and wellbeing examination (*SHoT. 2018*). This subscale was designed to look at overall lack of energy and consisted of 5 items. Participants were asked to think back on the last couple of weeks, how often they experienced a lack of energy with statements like "when you think back on the last weeks how often have you experienced being tired?". It has been tested and verified in our study, where the scale produced a reliable Cronbach's  $\alpha$  coefficient ( $\alpha = 0.89$ ). The participants responded on a 5-point Likert scale ranging from *very rarely* (1) to *quite often* (5).

**Task Avoidance scale.** In order to measure task avoidance, we selected the task avoidance scale developed by Nurmi et al., (1995b). It was developed as a part of larger test called the strategy and attribution questionnaire. It was designed to measure the extent to which people tend to behave in ways that prevent them from carrying out different tasks. Consisted of 4 items. Participants were asked to think back on what they do when they have a difficult task in front of them, with statements such as "when I have a difficult task in front of me, I find something else to do instead". The task avoidance scale has been tested and verified in our study, where the scale produced a good reliable Cronbach's  $\alpha$  coefficient ( $\alpha = .83$ ). The participants responded on a 5-point Likert scale ranging from *very rarely* (1) to *quite often* (5).

**Irrational Procrastination Scale (IPS).** In order to measure procrastination level among student we selected the IPS scale developed by Steel (2010). The IPS scale was designed around the notion that procrastination is viewed as a form of irrational delay (in comparison to other type of delay such as strategic). Instead of using the full IPS that consist of 9 items, (6 of them consistent with procrastination and 3 that are not consistent), we are instead using the reduced



version that consist of only the 6 items that are consistent with procrastination. We asked participants to assess their general tendencies to delay things with statements such as “my life would be better if I had done things earlier”. High scores in this subscale reflect higher levels of procrastination. The reduced and translated version of IPS that we are using has already been used in previous research and has been shown to be consistent with the complete English IPS with a Cronbach’s alpha of .93 and factor analysis showing an excellent fit (Svartdal & Steel, 2017). The participants responded on a 5-point Likert scale ranging from *does not fit at all* (1) to *fits very well* (5).

### **Recruitment**

During the questionnaire design and data collection phase, I collaborated with Ingebjørg Mai Olaussen from the psychology science group. Afterwards each of us analysed our own subset of total data collected. I focused on data concerning interest, procrastination, lack of energy, effort cost, and task aversion/effort aversion. We distributed the questionnaire with the use of convenience sampling. Convenience sampling is a sampling method where which types of people and groups are used as sample is based mostly on how easy they are to reach or contact. We distributed the questionnaire electronically with the software Qualtrics ([www.Qualtrics.com](http://www.Qualtrics.com)) with the use of emails and QR codes on flyers. The survey could be answered on any electronic device. Data collection was done in the middle of the fall semester of 2021, and over the course of 3 weeks. The only requirement we put on was that the participant had to be a Norwegian student and at least 18 years old. The age frequency of the participants was distributed as follows: 18-29 (441), 30-39 (28), 40-49 (1), Participants were informed that if they completed the questionnaire had a chance to win a 2000-3000 NOK gift card in a lottery by providing their phone number at the end of the questionnaire. We estimated that participants would take 15

minutes to complete the test (time spent on questionnaire was: Median= 6.3 minutes, Mean= 55.6 minutes). The high mean is probably because people took breaks, before finishing the questionnaire.

### **Procedure**

The survey was made up of 63 items and 9 subsections. Participants were asked to rate statements on a five-point Likert scale to what degree each statement fit for them (1 = “Does not fit at all”, 5 = “fits very well”), On the first page of the survey that was done on Qualtrics the participants were informed of the purpose of the study and confidentiality/data security. They were required to give their consent before being able to proceed to the survey. Furthermore, they were informed on their right to end the participation at any time "(see Appendix for the full questionnaire in Norwegian)". Because of the nature of this study, where we did not collect any sensitive data, there was not a need for an ethical review. We decided to use only a Norwegian variant of the questionnaire instead of creating both a Norwegian or English version or relying only on an English version. The reason for this choice is that we were interested in the response of Norwegian students and would therefore not need an English version of the questionnaire in order to complete the study. Demographic questions were limited to gender, age, and education. After completing the questionnaire, the participants were given contact information necessary, to contact us directly if they had any questions or comments.

We decided to focus on this paper to measure only university students and not include for example working adults outside universities. There were several reasons for this choice. One reason is that research show that university students are impacted to a larger extent than the adult population (20% vs 50%) (steel, 2007; Svartdahl, 2020). Another advantage is that we have to

some extent more control about students' situation. Especially in our case where we relied on data from only one university (university of Tromsø).

Because of our lack of control over participants academic background we avoided designing the questionnaire around a single course. For example, we did not in the study, presume that participant studied psychology or medicine, only that they are university students. Instead, the questionnaire asked more general questions about the students' relationship with the course that they are studying without assuming what that course is. The participants were before looking at the other questions asked to think about their own study program and their thoughts and feelings against this subject.

### **Statistical procedure**

The statistical software SPSS 28(IBM corp.2021) was applied for analysing data. we used linear correlation and hierarchical regression analysis to assess the relationship between our key variables. We examined skewness and kurtosis for each item, since normality is an important assumption for SEM models (Brown, 2015). These were all found to be within acceptable ranges.

Next, we conducted a structural equation modeling (SEM) with a whole sample in order to test the hypothesized model using Mplus (Version 8.7). All models for the latent variables analysis were estimated with the weighted least square mean and variance estimator (WLSMV). Chi-square statistics, the Tucker-Lewis Index (TLI), comparative fit index (CFI), and the root mean square error of approximation (RMSEA) were used to evaluate the overall fit of the models. For the CFI and TLI, a score of  $\geq 0.95$  is presently recognized as indicative of good fit (Hu and Bentler, 1999) and for the RMSEA, values under 0.05 represent a close approximate fit, and values between 0.05 and 0.08 suggest an acceptable fit (Browne and Cudeck, 1993). Finally

for the standardized RMR (SRMR) values range from zero to 1.0 with well-fitting models obtaining values less than .05 (Diamantopoulos and Siguaw, 2000), however values as high as 0.08 are deemed acceptable (Hu and Bentler, 1999). An SRMR of 0 indicates perfect fit but it must be noted that SRMR will be lower when there is a high number of parameters in the model and in models based on large sample sizes

## Results

### Key variables and normal distribution

**Table 1** presents the descriptive statistics for all the key scales used in this study (Mean, standard deviation, skewness, and kurtosis). All key scales had moderate mean scores. Most also had low skewness for all key scale (less than |0.36|), with the exception of task aversion which a skewness score (0.39) which indicate medium skewness. The same was the case with kurtosis where all key scales had a low kurtosis (less than |0.53|), which the exception of procrastination which had a kurtosis score of -0.75 which indicate medium kurtosis. Overall, the analysis indicates that the scales for the most part produced a range of scores that had an approximately normal distribution (Kline, 2011)

### Descriptive Statistics and Correlations

The correlations between all variables are also presented in **Table 2**. As expected, based on hypothesis H1 and H2, interest was negatively correlated with effort cost ( $r = -.36$ ), lack of energy ( $r = -.22$ ), task aversion ( $r = -.31$ ), and most importantly it was negatively correlated with

procrastination ( $r = -.30$ ). Conversely, effort cost was positive correlated with effort cost ( $r = .74$ ) task aversion ( $r = .38$ ), and with procrastination ( $r = .33$ ). Task aversion as we predicted based on previous research was highly and positively correlated with procrastination ( $r = .76$ ).

Given the high correlation between task aversion and procrastination ( $r = .76, p < .001$ ), and between lack of energy and effort cost (.74) we investigated multicollinearity statistics. All variance inflation factors  $< 1.82$ , and tolerances  $> 0.55$  were found to be within normal ranges.

**Table 1**

*Descriptive statistics and correlations.*

	1	2	3	4	5
1. Interest	--				
2. Effort cost	-0.36	--			
3. Lack of energy	-0.22	0.74	----		
4. Task aversion	-0.31	0.38	.43	-----	
5. Proc	-0.30	0.33	.40	.76	-----
M	3.49	3.27	3.08	2.73	3.02
SD	.59	.82	.92	.85	1.01
Skewness	-.16	-.08	-.17	.39	.15
Kurtosis	0.02	-0.14	-0.36	0.215	-0.75

N= 470. All correlation were significant at  $p < 0.01$

**Test of the hypothesized model**

The model illustrated in Figure 1 showed acceptable fit to the data,  $\chi^2(139, N = 570) = 780.906^*$ ,  $p < 0.001$  (CFI = 0.971, TLI = 0.967, RMSEA = 0.061, SRMR = 0.052). As **Table 3** shows, consistent with the hypotheses, individual interest negatively predicted effort cost ( $\beta = -.36$ ), lack of energy ( $\beta = -.22$ ), and negatively predicted task aversion ( $\beta = -.31$ ). Moreover, interest negatively predicted procrastination ( $\beta = -.30$ ). Consistent with the hypotheses, procrastination showed a medium positive correlation to effort cost ( $\beta = .25$ ), lack of energy ( $\beta = .36$ ), and high positive correlation to task aversion ( $\beta = .73$ ). Effort cost showed a high positive correlation to lack of energy ( $\beta = .72$ ), and medium positive correlation with task aversion ( $\beta = .31$ ). and lack of energy showed a positive correlation to task aversion ( $\beta = .40$ )

**Table 3**

*Results from SEM analysis*

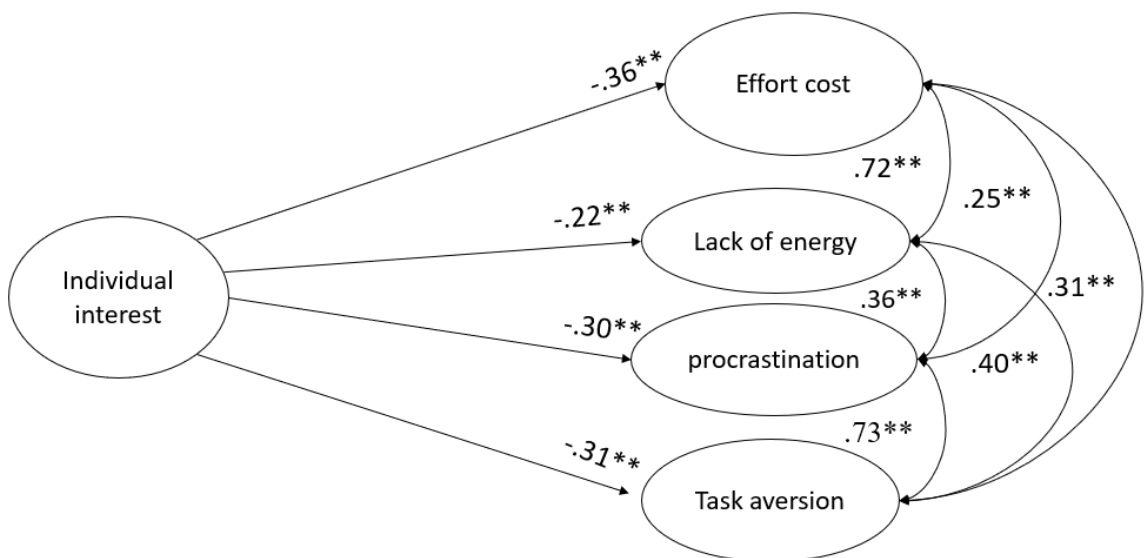
Path	B	SE	P
Interest → effort cost	-.36	.047	<0.001
Interest → procrastination	-.30	.048	<0.001
Effort cost ↔ procrastination	.25	.047	<0.001
Interest → task aversion	-.31	.048	<0.001
Effort cost ↔ task aversion	.31	.047	<0.001
Task aversion ↔ procrastination	.73	.024	<0.001
Interest → lack of energy	-.22	.052	<0.001
Lack of energy ↔ effort cost	.72	.026	<0.001
Lack of energy ↔ task aversion	.40	.044	<0.001
Lack of energy ↔ procrastination	.36	.044	<0.001

---

N= 470. All correlation were significant at  $p < 0.01$

**Figure 2.**

*Result from SEM analysis of individual interest's effect on effort cost, lack of energy, procrastination, and takes aversion*



Note: \*\* $p < 0.001$

### **Discussion**

The present study examined the predictive relationship between individual interest, effort cost, lack of energy, task aversion, and procrastination. The aim of this thesis was to assess and investigate individual interest's role as a predictor of procrastination, effort cost, lack of energy, and task aversion. Based on previous studies it was unclear whether individual interest would have the same results as other interest scales. We observed that individual interest played a significant role in predicting students' effort cost, task aversion, and procrastination level which give support to hypothesis 1.

Furthermore, we found that task aversion, lack of energy, effort cost, and procrastination as avoidance-oriented variables was positively related to each other which give support to hypothesis 2. The relationship between effort cost and procrastination, to the best of our knowledge, has so far in current research not been directly tested before. Another thing we managed to accomplish was creating a model based on hypothesis 1 and 2. The model proved to have good model fit which gives further support to hypothesis 1 and 2.

As expected, interest appeared as a negative predictor of effort cost perception, whether it was because of effortless attention, energy replenishment, or other mechanisms is still unclear. Individual interest's negative relation to lack of energy give some support to the idea that interest relation to effort cost is explained by interest ability to replenish energy. It is possible that there exists other mechanisms or interactions with interest we are still not aware of. However, at the very least we able to replicate Song et al (2019) findings with adult students that there is a direct relation between interest and effort cost even when we used a different type of interest measure. Out of all outcome variables individual interest was best in predicting effort cost.



Interest and task aversion have a similar situation as well. As expected, interest appeared as a negative predictor of task aversion, and task aversion in turn also had a positive relation to procrastination. However, similar to effort cost it is unclear exactly how individual interest affect task aversion. Based on explanations from Schraw's et al. (2007) it is likely that high individual interest is related to relief of boredom, it is however possible that it is related to other aversive aspects of task aversion as well such as frustration and resentment. An interesting aspect of interest illustrated by Turner and Silvia (2006) is how high interest can predict engagement even when it is not pleasant, indicating that interest can give some resistance to certain aspect of task aversion

### **Individual interest vs others measure of interest**

When it comes to other measures of interest and their interaction with procrastination, we can see they share a lot of similarities with individual interest. For example, with situational interest Danya et al (2014) illustrated that situational interest had a negative correlation of  $r = -.27$  with academic procrastination. We were able to replicate the similar result with individual interest and procrastination (IPS) where we found a negative correlation of  $r = -.30$ . This might be an indication that individual interest has about the same impact on procrastination as situational interest. However, our argument against overreliance on situational interest was not that it would have lower impact on procrastination, but that it is less reliable and likely to drop over longer time periods. That individual interest was able to get similar result as situational interest is favorable news as it indicates that reduction of procrastination is not just a temporary effect of interest. Another type of interest is interest enhancement which shares similar traits to

individual interest. Interest enhancement was measured by Gröpel and steel (2008) where they found a negative correlation of  $r = -.29$  between interest enhancement and procrastination.

When it comes to the other three avoidance-oriented variables we see similar results. Song et al (2019) who used the SMILES scale to measure interest, found that their scale of interest negatively predicted effort cost ( $\beta = -.42, p < .001$ ) and task aversion ( $\beta = -.31, p < .001$ ). in comparison we found that our individual interest scale (see table 2) had similar result when it comes to negatively predicting effort cost ( $\beta = -.36, p < .001$ ) and task aversion ( $\beta = -.31, p < .001$ ). The small differences between our and Song et al (2019) prediction of effort cost based on interest might be due to several reasons such as differences between participants or even differences between scales. The biggest difference between individual interest and other interest scales is found by Gröpel and steel (2008) study who used interest enhancement. They found a significant negative correlation of  $r = -.46$  between interest and lack of energy. In comparison we only found a significant negative correlation of  $r = -.22$ . This might indicate that their interest scale that is better than individual interest in certain tasks, or it might simply be a case of different sample variance. However, in our study individual interest was still able to significantly predict lack of energy.

Where does that leave individual interest? If all the other interest scale was able to produce similar or better results than individual interest, is there even a point in using it? That would depend on the goal of the use of interest in the study. If the goal is simply to look at interest relation to other variables, then situational and individual interest is probably not necessary. However, if you are looking into means to increase and maintain interest overtime it is probably still the best solution at the moment based on current research. The fact that individual interest was able to produce similar results as other interest scales previously used in

research on the 4 avoidance-oriented variables in this paper is a positive sign. It indicates that individual interest can be used in the future to study the relation between interest change and its relation to procrastination and other similar avoidance-oriented variables.

### **Implications for Academic Environments**

Our findings that individual interest negatively predicts procrastination demonstrates interest's role in academia in increasing engagement. It also gives credence to previous interview studies such as Schraw et al (2007) that looked into the relation of interest and procrastination where students attribute their procrastination to interest. It also reveals new findings such as effort cost being positively linked to procrastination. All in all, it gives support of the importance of high individual interest in academic environments. It also points out that ignoring students' low individual interest can potentially lead to negative consequences such as reluctance to initiate task related to academia.

### **Why is procrastination a problem in academia?**

An important question to raise to this Thesis findings is that if interest truly have a negative relation to procrastination, then why do so many students procrastinate? After all, you would expect a large reason people decide to choose their degree is related to interest. This assumption has some support from research as well. Harackiewicz et al. (2002) reported that interest predicts college students' choice of academic major

One reason might simply be that even with high interest other variables can get in the way. In our study Individual interest only had negative correlation of  $-.30$  which is important but far from the only deciding factor. We do know there are other variables that have an effect on

procrastination. Examples of relevant variables that might have an effect as well are goal setting, self-efficacy, and personality types such as conscientiousness.

Another potential explanation is that students have a general interest in the course overall but might lack interest in more specific aspects of the study. Even students who are highly motivated to achieve well in academia generally have interest only for a discrete set of specific content areas (Renninger et al., 2002). They might for example have an interest in reading cognitive psychology but lack an interest in other aspects of the study such as development psychology. You can also argue that the rewards typically used in academia such as grades can have a negative impact of students' interest. As Argued by Alfie Kohn (who looks at studies related to rewards) the use of certain types of reward such as grades and money can have a negative effect on intrinsic motivation. Specifically, he argued “, The more we use artificial inducements to motivate people, the more they lose interest in what we're bribing them to do. Rewards turn play into work, and work into drudgery” (Kohn,1993).

### **Limitations**

One of the limitations was how the methodology used here focused on self-reporting. Our findings would profit from confirmation with experimental work. For example, future research could focus on different types of strategies to increase individual interest in order to affect procrastination. Addressing the question may underline the importance of various treatments that aim to reduce procrastination.

Another limitation is that this paper focused on individual interest and did not look at the effect situational interest have on task aversion and procrastination. There are good opportunities to try different types of interventions that increase situational interest and look at whether they affect procrastination in a similar fashion as individual interest.

Future research may also benefit from looking into more specific aspects of students' courses. For example, in this study we might know how a person with general interest in psychology predict how much they might procrastinate. However, we will not know based on this study how they would procrastinate differently depending on the task they are working on. For example, even if students have an interest in psychology, it does not necessarily mean that they have an interest in biology even though it is an unavoidable aspect of a psychological degree, at the university of Tromsø at the very least. It could mean that students could procrastinate very little on a task they're interested in such as reading the study material and procrastinate a lot on tasks they are not so interested in such as preparing for presentations of the study subject.

### **Future research**

When it comes to future research an important next step in procrastination research could be found in exploring the utility of different types of interventions that focus on increasing and maintaining student's individual interest. It might be especially useful to look at interventions that involves developing student interest from situational interest to individual interest, since individual interest is a more stable form of interest that is less likely to disappear quickly (Hidi & Renninger, 2006). This could potentially be a vital solution to the many problems connected to procrastination and other avoidance-oriented variables.

Future research may also benefit from future experiments that look into mediation in order to get an even more clear picture of how these variables interact with each other. By doing so we should be able to create better and more accurate interventions to use against problem related to procrastination and avoidance related variables.

**Conclusion**

We began with considering why people decided to delay doing important tasks. Why bother to delay if it has negative consequences? Our study points to task aversion, lack of energy, effort cost, and especially procrastination as factors that might play a role making people more likely to delay. It also points to individual interest as variable that might counteract those variables to some extent. In summary, this thesis is supporting that individual interest is negatively associated with procrastination in academic environments as well as negatively associated with task aversion, lack of energy, and effort cost. Our research contributes to the understanding of procrastination as a self-regulatory failure in the realm of motivation. Furthermore, our research emphasizes the relevance of regulation strategies that can be used to increase students' individual interest in academics. Given the relations between individual interest, procrastination, lack of energy, effort cost, and task aversion, it seems clear that individual interest and the regulation of individual interest are of particular importance in academic environments. Hence, teaching strategies that aims to regulate individual interest should be included in interventions that tries to reduce procrastination.

## References

- Alexander, P. A., & Murphy, P. K. (1998). Profiling the differences in students' knowledge, interest, and strategic processing. *Journal of Educational Psychology*, 90, 435–447.
- Ainley, Interest, Editor(s): Penelope Peterson, Eva Baker, Barry McGaw, International Encyclopedia of Education (Third Edition), Elsevier, 2010, Pages 612-617, ISBN 9780080448947, <https://doi.org/10.1016/B978-0-08-044894-7.00611-4>.
- Ainley, M., Hidi, S., & Berndorff, D. (2002). Interest, learning, and the psychological processes that mediate their relationship. *Journal of educational psychology*, 94(3), 545.
- Ariely D, Wertenbroch K. Procrastination, deadlines, and performance: self-control by precommitment. *Psychol Sci*. 2002 May;13(3):219-24. doi: 10.1111/1467-9280.00441. PMID: 12009041.
- Baumeister, R. F., and Tierney, J. (2011). *Willpower: Rediscovering the Greatest Human Strength*. New York, NY: Penguin.
- Blunt, A. K., & Pychyl, T. A. (2000). Task aversiveness and procrastination: A multidimensional approach to task aversiveness across stages of personal projects.
- Danya M. Corkin, Shirley L. Yu, Christopher A. Wolters, Margit Wiesner, The role of the college classroom climate on academic procrastination, *Learning and Individual Differences*, Volume 32, 2014, Pages 294-303, ISSN 1041-6080, <https://doi.org/10.1016/j.lindif.2014.04.001>.

- Day, V., Mensink, D., & O'Sullivan, M. (2000). Patterns of academic procrastination. *Journal of College Reading and Learning, 30*(2), 120-134.
- DeMarie, D., & Aloise-Young, P. A. (2003). College students' interest in their major. *College Student Journal, 37*(3), 462-470.
- Deci, E. L. (1992). The relation of interest to the motivation of behavior: A selfdetermination theory perspective. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 43–70). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Denissen, J. J., Zarrett, N. R., & Eccles, J. S. (2007). I like to do it, I'm able, and I know I am: Longitudinal couplings between domain-specific achievement, self-concept, and interest. *Child development, 78*(2), 430-447.
- Eccles, J., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J., & Midgley, C.,(1983). Expectancies, values and academic behaviours. In J. T. Spence (Ed.), *Achievement and achievement motives: Psychological and sociological approaches* (pp. 75–146). San Francisco, CA: Freeman.
- Elliot, A. J., & McGregor, H. A. (2001). A 2 × 2 achievement goal framework. *Journal of Personality and Social Psychology, 80*(3), 501-519. <http://dx.doi.org/10.1037/0022-3514.80.3.501>
- Harackiewicz, J. M., Barron, K. E., Tauer, J. M., & Elliot, A. J. (2002). Predicting success in college: A longitudinal study of achievement goals and ability measures as predictors of interest and performance from freshman year through graduation. *Journal of Educational Psychology, 94*, 562–575
- Harackiewicz, J. M., & Durik, A. M. (2003, August). Task value in the college classroom: Predicting goals, interest, and performance. In M. Niemivirta (Chair),



*Advances in achievement goal research: The role of moderators and mediators.*

Symposium conducted at the 10th Biannual Meeting of the European Association for Learning and Instruction, Padova, Italy

Harackiewicz, J. M., Durik, A. M., Barron, K. E., Linnenbrink, L., & Tauer, J. M. (2008).

The role of achievement goals in the development of interest: Reciprocal relations between achievement goals, interest, and performance. *Journal of Educational Psychology*, 100(1), 105–122.

Hidi, S. (1990). Interest and its contribution as a mental resource for learning. *Review of Educational Research*, 60, 549–571.

Hidi, S. (2000). An interest researcher's perspective: The effects of extrinsic and intrinsic factors on motivation. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*. New York: Academic.

Hidi, S. (2001). Interest, reading and learning: Theoretical and practical considerations. *Educational Psychology Review*, 13, 191–210.

Hidi, S., & Ainley, M. (2008). Interest and self-regulation: Relationships between two variables that influence learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and application* (pp. 77–109). Mahwah, NJ: Erlbaum.

Hidi, S., & Baird, W. (1986). Interestingness—A neglected variable in discourse processing. *Cognitive Science*, 10, 179–194.

Hidi, S., & Baird, W. (1988). Strategies for increasing text-based interest and students' recall of expository texts. *Reading Research Quarterly*, 23, 465–483.

- Hidi, S., Weiss, J., Berndorff, D., & Nolan, J. (1998). The role of gender, instruction and a cooperative learning technique in science education across formal and informal settings. In L. Hoffmann, A. Krapp, K. A. Renninger, & J. Baumert (Eds.), *Interest and learning: Proceedings of the Seeon conference on interest and gender* (pp. 215–227).
- Hidi, S., & Renninger, K. A. (2006). The four-phase model of interest development. *Educational psychologist, 41*(2), 111-127.
- Hidi, S., Renninger, K. A., & Krapp, A. (2004). Interest, a motivational variable that combines affective and cognitive functioning. In D. Y. Dai & R. J. Sternberg (Eds.), *Motivation, emotion, and cognition: Integrative perspectives on intellectual functioning and development* (pp. 89–115). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Hoffmann, L., & Häussler, P. (1998). An intervention project promoting girls' and boys' interest in physics. In L. Hoffmann, A. Krapp, K.A. Renninger, & J. Baumert (Eds.), *Interest and learning: Proceedings of the Seeon conference on interest and gender* (pp. 301–316).
- Inzlicht, M., Shenhav, A., & Olivola, C. Y. (2018). The effort paradox: Effort is both costly and valued. *Trends in cognitive sciences, 22*(4), 337-349.
- Flake, J. K., Barron, K. E., Hulleman, C., McCoach, B. D., and Welsh, M. E. (2015). Measuring cost: the forgotten component of expectancy-value theory. *Contemp. Educ. Psychol. 41*, 232–244. doi: 10.1016/j.cedpsych.2015. 03.002

- Frenzel, A. C., Goetz, T., Pekrun, R., & Watt, H. M. G. (2010). Development of mathematics interest in adolescence: Influences of gender, family, and school context. *Journal of Research on Adolescence*, 20, 507– 537.
- Gaspard, H., Dicke, A. L., Flunger, B., Brisson, B. M., Häfner, I., Nagengast, B., & Trautwein, U. (2015). Fostering adolescents' value beliefs for mathematics with a relevance intervention in the classroom. *Developmental psychology*, 51(9), 1226.
- Grunschel, C., Patrzek, J., & Fries, S. (2013). Exploring reasons and consequences of academic procrastination: An interview study. *European Journal of Psychology of Education*, 28(3), 841- 861. <https://doi.org/10.1007/s10212-012-0143-4>
- Gröpel, P., & Steel, P. (2008). A mega-trial investigation of goal setting, interest enhancement, and energy on procrastination. *Personality and individual differences*, 45(5), 406-411.
- Kachgal, M. M., Hansen, L. S., & Nutter, K. J. (2001). Academic procrastination prevention/intervention: Strategies and recommendations. *Journal of Developmental Education*, 25(1), 14.
- Kim, K. R., & Seo, E. H. (2015). The relationship between procrastination and academic performance: A meta-analysis. *Personality and Individual Differences*, 82, 26–33. <https://doi.org/10.1016/j.paid.2015.02.038>
- Klingsieck, K. B. (2013b). Procrastination: When good things don't come to those who wait. *European Psychologist*, 18(1), 24-34.
- Knapstad M, Heradstveit O, Sivertsen B. “Studentenes Helse- og Trivselsundersøkelse 2018”. [Students' Health and Wellbeing Study 2018]. Oslo: SiO (Studentsamskipnaden i Oslo og Akershus, 20

- Kuhl, J. (1994). Motivation and volition. *International perspectives on psychological science: The state of the art*, 2, 311-340.
- Kuhl, J. (2000). The volitional basis of Personality Systems Interaction Theory:: applications in learning and treatment contexts. *International Journal of Educational Research*, 33(7-8), 665-703.
- Krapp, A., & Fink, B. (1992). The development and function of interests during the critical transition from home to preschool. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 397–429). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Krapp, A., & Lewalter, D. (2001). Development of interests and interest-based motivational orientations: A longitudinal study in vocational school and work settings. In S. Volet & S. Järvelä (Eds.), *Motivation in learning contexts: Theoretical advances and methodological implications* (pp. 201–232). London: Elsevier
- Nieswandt, M. (2007). Student affect and conceptual understanding in learning chemistry. *Journal of Research in Science Teaching*, 44, 908– 937.
- McDaniel, M. A., Waddill, P. J., Finstad, K., and Bourg, T. (2000). The effects of textbased interest on attention and recall. *J. Educ. Psychol.* 92, 492–502. doi: 10.1037/0022-0663.92.3.492
- Mitchell, M. (1993). Situational interest: Its multifaceted structure in the secondary school mathematics classroom. *Journal of Educational Psychology*, 85, 424–436.
- Pekrun, R. (1992). The impact of emotions on learning and achievement: towards a theory of cognitive/motivational mediators. *Appl. Psychol. Int. Rev.* 41, 359–376. doi: 10.1111/j.1464-0597.1992.tb00712.x

- Peterson, K. E. (1987). *Relationships among measures of writer's block, writing anxiety, and procrastination* (Doctoral dissertation, The Ohio State University).
- POTTS, T. J. (1987). *Predicting procrastination on academic tasks with self-report personality measures* (Doctoral dissertation, Hofstra University).
- Prenzel, M. (1992). The selective persistence of interest. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 71–98). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Veiga, F. H., García Pérez, J. F., Reeve, J., Wentzel, K., & Garcia, O. F. (2015). When adolescents with high self-concept lose their engagement in school.
- Visser, L., Korthagen, F. A., & Schoonenboom, J. (2018). Differences in learning characteristics between students with high, average, and low levels of academic procrastination: students' views on factors influencing their learning. *Frontiers in Psychology, 9*, 808.
- Wigfield, A., & Cambria, J. (2010). Students' achievement values, goal orientations, and interest: Definitions, development, and relations to achievement outcomes. *Developmental Review, 30*, 1–35.
- Renninger, K. A. (2000). Individual interest and its implications for understanding intrinsic motivation. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 375–407). New York: Academic.
- Renninger, K. A., Bachrach, J. E., & Posey, S. K. E. (2008). Learner interest and achievement motivation. In M. L. Maehr, S. Karabenick, & T. Urdan (Eds.),

*Social psychological perspectives Volume 15: Advances in motivation and achievement.* (pp. 461–491). Bingley, UK: Emerald.

Renninger, K. A., Ewen, L., & Lasher, A. K. (2002). Individual interest as context in expository text and mathematical word problems. *Learning and Instruction*, 12, 467–491.

Renninger, K. A., & Hidi, S. (2002). Student interest and achievement: Developmental issues raised by a case study. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 173–195). New York: Academic

Renninger, K. A., & Leckrone, T. (1991). Continuity in young children's actions: A consideration of interest and temperament. In L. Oppenheimer & J. Valsiner (Eds.), *The origins of action: Interdisciplinary and international perspectives* (pp. 205–238). New York: Springer-Verlag.

Renninger, K. A., & Wozniak, R. H. (1985). Effect of interest on attention shift, recognition, and recall in young children. *Developmental Psychology*, 21, 624–632.

Sansone, C. (2009). What's interest got to do with it?: Potential trade-offs in the selfregulation of motivation. In J. P. Forgas, R. Baumeister, & D. Tice (Eds.), *Psychology of self-regulation: Cognitive, affective, and motivational processes* (pp. 35–51). New York, NY: Psychology Press

Sansone, C., & Morgan, C. (1992). Intrinsic motivation and education: *Competence in context.* *Motivation and Emotion*, 16, 249–270.

Sansone, C., & Thoman, D. B. (2005). Interest as the missing motivator in selfregulation. *European Psychologist*, 10(3), 175.

- Sansone, C., Weir, C., Harpster, L., & Morgan, C. (1992). Once a boring task always a boring task? Interest as a self-regulatory m
- Schiefele, U. (1999). Interest and learning from text. *Scientific Studies of Reading*, 3, 257–280.
- Schiefele, U. (2001). The role of interest in motivation and learning. In J. M. Collis & S. Messick (Eds.), *Intelligence and personality: Bridging the gap in theory and measurement* (pp. 163–194). Mahwah, NJ: Lawrence Erlbaum Associates, Inc
- Schiefele, U., & Krapp, A. (1996). Topic interest and free recall of expository text. *Learning and Individual Differences*, 8, 141–160.
- Schraw, G., Wadkins, T., and Olafson, L. (2007). Doing the things, we do: a grounded theory of academic procrastination. *J. Educ. Psychol.* 99, 12–25. doi: 10.1037/0022-0663.99.1.12
- Schraw, G., Flowerday, T., & Lehman, S. (2001). Increasing situational interest in the classroom. *Educational Psychology Review*, 13, 211–224.
- Schouwenburg, H. C. (2004). Procrastination in Academic Settings: General Introduction.
- Sirois, F. M., Melia-Gordon, M. L., & Pychyl, T. A. (2003). “I’ll look after my health, later”: An investigation of procrastination and health. *Personality and individual differences*, 35(5), 1167-1184.
- Stead, R., Shanahan, M. J., & Neufeld, R. W. (2010). “I’ll go to therapy, eventually”: Procrastination, stress and mental health. *Personality and individual differences*, 49(3), 175-180.

- Steel, P. (2007). The nature of procrastination: a meta-analytic and theoretical review of quintessential self regulatory failure. *Psychological Bulletin*, 133(1),65  
[doi/10.1037/0033-2909.133.1.65](https://doi.org/10.1037/0033-2909.133.1.65)
- Strongman, K. T., & Burt, C. D. (2000). Taking breaks from work: An exploratory inquiry. *The Journal of psychology*, 134(3), 229-242.
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, 31(4), 503-509.
- Thoman, D. B., Smith, J. L., and Silvia, P. J. (2011). The resource replenishment function of interest. *Soc. Psychol. Personal. Sci.* 2, 592–599.
- Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychological Science*, 8(6), 454-458.
- Zarick, Lisa M., and Robert Stonebraker. "I'll do it Tomorrow: The Logic of Procrastination." *College Teaching* 57, no. 4 (2009): 211-215.



## Appendix

# Interest

---

Start of Block: Informasjon, bakgrunn og INTERESSE

**INFO Hei og velkommen til en spørreundersøkelse om ditt liv som student!**

Vi ber deg her svare på noen spørsmål knyttet til dine opplevelser av det faget du studerer, altså ditt studieprogram. Svar på spørsmålene så nøyaktig du kan. Det er ingen rette eller gale svar her, vi er ute etter dine egne erfaringer av studielivet.

Undersøkelsen tar mellom 7 og 10 min. Om du vil, kan du delta i trekningen av et gavekort på Jekta som takk for din deltakelse. Vi deler ut 3 stk gavekort på 1000kr hver. Nærmere informasjon gis på siste side av undersøkelsen.

Svarene gis anonymt, og kan ikke spores tilbake til deg. Du deltar frivillig og kan når som helst avslutte undersøkelsen. Prosjektet er godkjent av forskningsetisk komité, og gjennomføres av forskerlinjestudent Ingebjørg M. Olausen, med veiledning av professor Frode Svartdal.

På forhånd tusen takk!

Ved å trykke "Neste" bekrefter du at du ønsker å delta i denne undersøkelsen.

---

Page Break

GENDER Kjønn

- Mann
- Kvinne
- Annet / Vil ikke svare



AGE Alder

---

---

I AM Jeg er...

- Student (heltid)
- Student (deltid)
- Jobb / Annet

---

YEAR\_STUD

Hvor lenge har du studert?

- 0 - 2 år
- 2 - 4 år
- 4 - 6 år eller mer

HOURS\_STUD I gjennomsnitt, omtrent hvor mange timer i uka bruker du på...

	0-3 t	4-6 t	7-10 t	11-15 t	16-25 t	Mer enn 25 t
Forelesninger / seminarer?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Studiearbeid utenom undervisningen ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

---



Individuell Interesse Her kommer noen utsagn om ditt forhold til det faget du studerer (ditt studieprogram).

Vurder hvor godt hvert utsagn passer til deg.

	Passer svært dårlig	Passer stort sett ikk e	Passer litt	Passer ganske godt	Passer svært godt
Jeg er veldig interessert i faget mitt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg leser mye om faget mitt, utenfor det som er pensum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg gleder meg alltid til forelesninger i faget mitt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg har hatt interesse for faget mitt siden jeg var liten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



<p>Jeg ser på en del                  TV-                  programmer                  og                  dokumentare                  r som er                  relatert til                  faget mitt.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Senere i livet ønsker                  jeg å satse på                  en karriere                  relatert til                  faget mitt.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Når jeg leser noe,                  eller ser noe                  på TV som                  er relatert til                  faget mitt, er                  jeg fullt                  fokusert og                  glemmer alt                  rundt meg.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Informasjon, bakgrunn og INTERESSE

---

Start of Block: Faktor innvirkning på valg av fag

Hva gjorde at du valgte studiet ditt?

Angi hvor mye hver faktor påvirket ditt valg av studieprogram.

	1 (hadde ingen innvirkning på valget)	2	3	4	5 (hadde stor innvirkning på valget)
Evne / ferdighet i faget	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreldres meninger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gode jobbmuligheter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interesse for faget	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lønnsnivå	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fagets status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

PEERS Her kommer noen utsagn om dine medstudenter.

	Passer svært dårlig	Passer stort sett ikke	Passer litt	Passer godt	Passer svært godt
Det virker som at mine nærmeste medstudenter (de jeg har mest kontakt med) har høy interesse for faget.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Det virker som at medstudentene i kullet mitt generelt har høy interesse for faget.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Faktor innvirkning på valg av fag

---

Start of Block: Effort Cost & Lack of Energy



Effort COST

Tenk på når du studerer.

Vurder hvor godt hvert utsagn passer til deg.

	Passer svært dårlig	Passer stort sett ikke	Passer litt	Passer godt	Passer svært godt
Å studere tapper mye av energien min.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Det er slitsomt å studere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg føler meg ofte utslitt etter å ha lest mye pensum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Å lære nye ting er slitsomt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lack of Energy

Når du tenker tilbake på de siste ukene, hvor ofte har du ...

	Svært sjelden	Sjelden	Noen ganger	Ofte	Svært ofte
... opplevd at du lett har blitt sliten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... følt deg fysisk utmattet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... hatt problemer med å tenke klart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... følt deg mentalt utmattet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... følt deg fysisk svak	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



TASK\_AV Tenk på når du har en vanskelig oppgave foran deg.

(f.eks. en innlevering, presentasjon, hjemmeeksamen, lese en lang artikkel o.l.)

	Svært sjelden	Sjelden	Noen ganger	Ofte	Svært ofte
Når jeg har en vanskelig oppgave foran meg, finner jeg gjerne noe annet å gjøre.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dersom jeg står litt fast med en vanskelig oppgave, begynner jeg gjerne å snakke med medstudenter om andre ting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Dersom jeg forventer at noe kommer til å være vanskelig, finner jeg gjerne noe annet å gjøre i stedet.

Dersom jeg har en vanskelig oppgave foran meg, merker jeg ofte at jeg ikke egentlig prøver.

End of Block: Task Avoidance

---

Start of Block: DISORGANIZATION (Studievaner)

DISORG Tenk på når du arbeider med faget ditt utenom undervisningen.

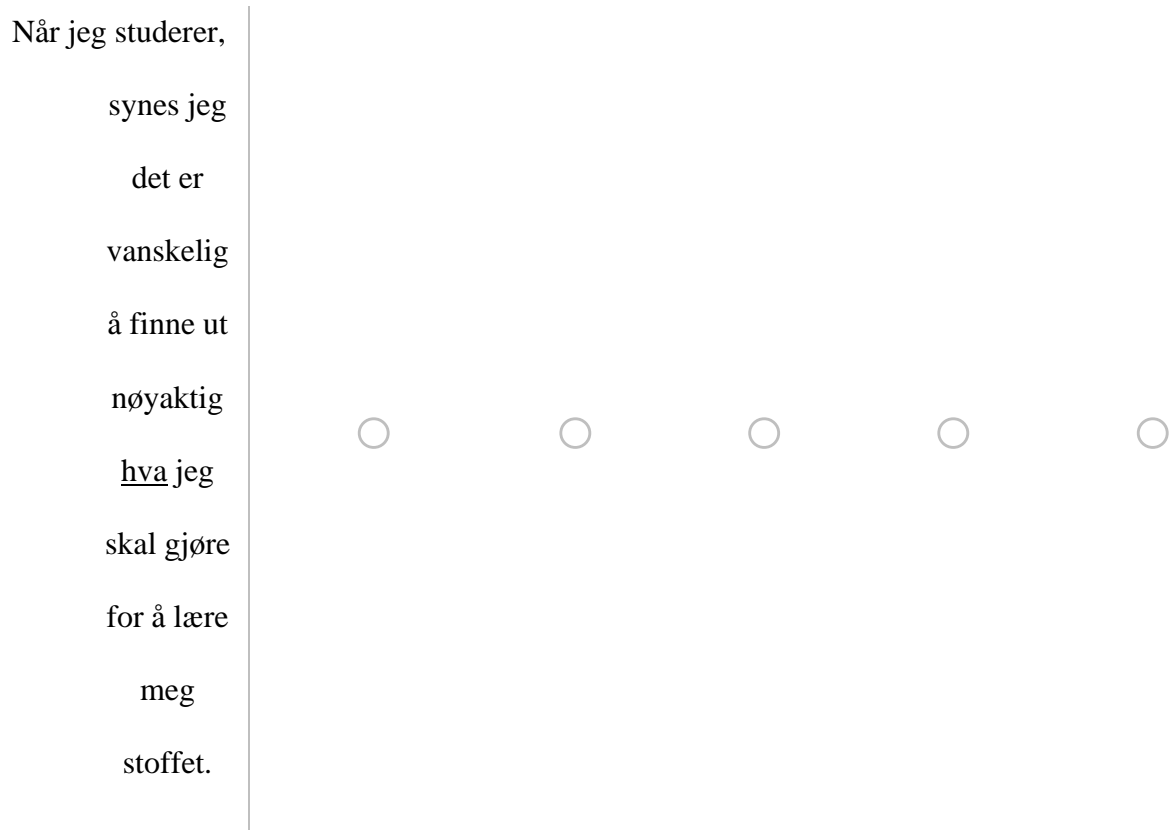
	Passer svært dårlig	Passer stort sett ikke	Passer litt	Passer godt	Passer svært godt
Jeg er ikke helt sikker på <u>hvordan</u> jeg burde studere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Når jeg studerer, føler jeg ofte at jeg ikke vet nøyaktig hva jeg skal gjøre og hvor jeg skal begynne.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Jeg synes det er  
vanskelig  
å lage  
meg en  
studieplan  
for  
hvordan  
jeg skal  
studere.



Når jeg studerer,  
synes jeg  
det er  
vanskelig  
å  
organisere  
tiden min  
effektivt.





End of Block: DISORGANIZATION (Studievaner)

---

Start of Block: Procrastination

**PROK** Nå nærmer du deg slutten av undersøkelsen. Her kommer noen spørsmål om deg generelt.

Her kommer noen utsagn som angår din tendens til å utsette ting.



	Passer svært dårlig	Passer stort sett ikke	Passer litt	Passer godt	Passer svært godt
Jeg utsetter ting så lenge at det går ut over velvære og effektivitet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Livet mitt ville vært bedre om jeg hadde gjort ting tidligere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Når jeg burde gjøre noe, gjør jeg gjerne noe annet i stedet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Når jeg ser tilbake på dagen, vet jeg at jeg kunne utnyttet tiden bedre.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg venter med å gjøre ting mer enn hva som er fornuftig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg utsetter ting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Procrastination

Start of Block: Negative Consequences of Procrastination

NCP

Tenk tilbake på situasjoner der du har utsatt planlagte oppgaver unødvendig (du har prokrastinert).

Når du tenker tilbake på slike situasjoner, vil du si at disse medførte ...

	Passer svært dårlig	Passer stort sett ikke	Passer litt	Passer godt	Passer svært godt
<p>... at du opplevde deg selv som dårligere enn andre. (eks. at andre jobbet mye raskere og ble ferdig lenge før deg).</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>... at du har gått glipp av ting. (eks. at du ikke overholdt en viktig frist).</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

... at du har tapt på å

være sen.

*(eks. at du var*

*for sent ute*

*med å betale*

*en regning og*

*fikk et stort*

*inkassogebyr)*



... at du ble plaget av

negative

følelser. *(eks.*

*skam, anger,*

*skyldfølelse,*

*eller*

*bekymring).*



... at du ble skuffet

over deg selv.

*(eks. at du*

*egentlig*

*hadde*

*forventet at*

*du skulle*

*klare det du*

*hadde bestemt*

*deg for, men*

*mislyktes).*

... at du fikk bekreftet

at du er dårlig

på å

gjennomføre

ting.



End of Block: Negative Consequences of Procrastination

---

Start of Block: Self-Efficacy

SELF\_E Og til slutt, her kommer noen utsagn om hvordan du ser på deg selv når det gjelder å få ting gjort.

	Passer svært dårlig	Passer stort sett ikk e	Passer litt	Passer godt	Passer svært godt
Jeg føler meg trygg på at jeg ville kunne takle uventende hendelser på en effektiv måte.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Takket være ressursene mine, så vet jeg hvordan jeg skal takle uventede situasjoner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Jeg kan løse de fleste problemer hvis jeg går tilstrekkelig inn for det.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeg beholder roen når jeg møter vanskeligheter fordi jeg stoler på mestringsevne n min.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samme hva som hender så er jeg vanligvis i stand til å takle det.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**TLF Tusen takk for at du svarte!**

Om du vil være med i trekningen av et Jekta-gavekort på 1000kr, skriv inn ditt

telefonnummer i feltet under. Denne informasjonen slettes straks undersøkelsen er avsluttet.

---