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"Social networking is a way of being"

A Quantitative Study of Relations Between Adolescents' Use of Social Media, Self-Regulation, and Academic Achievement

Forord

Dette er det siste jeg skriver før jeg leverer denne masteren. For å være helt ærlig, har dette vært en krevende prosess. Jeg har flere ganger tenkt tanken på at jeg ikke kommer til å klare dette. Jeg har flere ganger ikke sett lyset i enden av tunellen. Likevel, i det jeg sitter og skriver dette forordet tenker jeg tilbake på de fine sidene ved denne prosessen; på alt jeg har lært og på de som har vært der for meg gjennom prosessen. Heldigvis, kan jeg si meg stolt over det jeg har klart å prestere. Jeg er stolt over å ha gjennomført et prosjekt om et tema som jeg brenner for.

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Abstract

Technological development allows adolescents to use social media frequently. Most adolescents have an unproblematic approach to social media, however, research indicates that some suffer from negative consequences, thereby social media addiction. This addiction may, in turn, affect adolescents' academic achievement. This thesis' aim was to investigate the relation between adolescents' level of social media addiction and their academic achievement and to investigate the role of self-regulation in this addiction. Research questions were: 1) How does social media use predict academic achievement in adolescents? 2) How does self-regulation predict social media use in adolescents?

This thesis used a quantitative method approach with a cross-sectional design. The sample consisted of 139 lower secondary grade students (ages 13–16) at two schools in Norway. They completed a digital survey, reporting demographic variables, hours spend on social media, social media addiction using the Bergen Social Media Addiction Scale, self-regulation using the Adolescent Self-Regulatory Inventory, and academic achievement based on students' grade point average.

Results demonstrated: 1) social media addiction had a negative effect on students' grade point average and 2) self-regulation had a negative effect on students' social media addiction. These results emphasize the importance of creating awareness around problematic use of social media in lower secondary school and the importance of teaching students strategies to regulate their behavior in order to prevent addiction to social media.

Sammendrag

Teknologisk utvikling tillater ungdommer å bruke sosiale medier hyppig. De fleste ungdommer har en uproblematisk tilnærming til sosiale medier. Likevel, indikerer forskning at noen får negative konsekvenser, derved sosiale medier avhengighet. Denne avhengigheten kan videre ha en effekt på ungdommers skoleprestasjoner. Målet med denne masteroppgaven var å undersøke sammenhenger mellom ungdommers nivå av sosiale medier avhengighet og deres skoleprestasjoner, samt å undersøke hvordan selv-regulering spiller en rolle i denne avhengigheten. Forskningsspørsmålene var: 1) Hvordan predikerer bruk av sosiale medier ungdommers skoleprestasjoner? 2) Hvordan predikerer selv-regulering ungdommers bruk av sosiale medier?

Masteroppgaven brukte kvantitativ metode med et tverrsnitts design. Utvalget besto av 139 ungdomsskoleelever på to ulike skoler i Norge. Elevene fullførte en digital spørreundersøkelse som rapporterte demografiske variabler, timer brukt på sosiale medier, sosiale medier avhengighet ved hjelp av Bergen Social Media Addiciton Scale, selv-regulering ved hjelp av Adolescent Self-regulatory Inventory og skoleprestasjoner med utgangspunkt i elevenes gjennomsnittskarakter.

Resultatene demonstrerte at 1) sosiale medier avhengighet hadde en negativ effekt på elevenes gjennomsnittskarakter og 2) selv-regulering hadde en negativ effekt på elevenes sosiale medier avhengighet. Dette betyr at elever med høyere nivå av sosiale medier avhengighet hadde en tendens til å ha lavere gjennomsnittskarakterer og elever med lavere nivå av selv-regulering hadde en tendens til å vise mer tegn av sosiale medier avhengighet. Disse resultatene understreker viktigheten av å skape bevissthet rundt problematisk bruk av sosiale medier på ungdomstrinnet og viktigheten av å lære elever strategier de kan bruke for å regulere egen atferd for å forhindre sosiale medier avhengighet.

1.0 Introduction

Social media connects us together in a whole new level. It makes us stay in touch with each other every second of the day if we want to, just with a simple click. No wonder people get addicted, especially since sociality is one of humans most basic needs (Imsen, 2014, s. 305). But the companies behind social media already know this (Aalen & Iversen, 2021, s. 20), so why don't make some money out of it? Social media has become a great phenomenon that is a huge part of many people's lives. However, it has been met with criticism regarding how it affects people. Social media contributes to proliferation, whether it is fake news or unfortunate pictures and videos that should never have seen the daylight. There are profiles that make other people feel bad because they know that they would never accomplish those "body-goals", that number of followers or that fantastic, "Instagram-worthy" life. In fact, research has shown that people who use social media excessively have lower self-esteem, higher level of depression symptoms and narcissistic personality features (Andreassen et al., 2017; Bányai et al., 2017). Research also tells us that excessive use of social media may be a sign of deficient self-regulation (LaRose et al., 2003), which can be referred to as people's willpower, self-control, and self-discipline (Kraft, 2014, s. 9). Bandura (1999) states that getting addicted to something shows the failure of self-regulatory functions (LaRose, 2001, s. 398). It has even come so far that social media is in fact discussed as something that people can be addicted to. Social media addiction is not yet a recognized diagnose, but a well-established term in the research literature (Aalen & Iversen, 2021, s. 109). Social media addiction works like any other behavioural addiction that does not involve the ingestion of a drug (Griffiths, 2005, s. 191). What's worrying about this is that social media is in a larger grade used by adolescents (Bányai et al., 2017, s. 1). This use may have negative consequences for their development, thereby their school-life and life in general. Several studies have in fact found associations between student's level of social media addiction and lower academic performance (Akbay, 2019; Azizi et al., 2019; Hou et al., 2019; van den Eijnden et al., 2018). Excessive use of social media has contributed to adolescents feeling uncertain, loss of control, and poorer mental health and academic results (Griffiths et al., 2018, s. 1).

Internet addictions has been researched for several years. However, social media is developing in line with the fast-changing technology which makes it important to keep up in

order to address potential issues that follow. Two Norwegian media experts Ida Aalen and Magnus Hoem Iversen (2021) claim that social media is too important to be left to sighting and that children and adolescents need to develop digital competence and self-confidence in order to manage themselves in their social lives, at school and in working life (s. 135). Researchers have suggested that adolescents who are at risk of problematic social media use should utilize school-based prevention and intervention programs as well as teaching effective and efficient learning methods that can be effective in reducing unhealthy usage (Akbay, 2019, s. 564; Bányai et al., 2017, s. 10).

The main aim of this thesis is therefore to gain more insight into the possible negative consequences of social media use on adolescents' academic achievement and assess the role self-regulation may play in this addiction. The results of this thesis may ultimately create awareness around a topic that has growing attention, especially among adolescents. This thesis will discuss existing research and critically acknowledge the negative consequences of social media. It will describe the theoretical perspectives and existing research in order to discuss how the school as a learning arena can contribute to prevent adolescents' use of social media from going in negative directions.

Thus, the purpose of this thesis is to investigate the associations between social media addiction, academic achievement, and self-regulation in a sample of adolescents. The following research questions were asked:

1) *How does social media use predict academic achievement in adolescents?*
2) *How does self-regulation predict social media addiction in adolescents?*

1.2 The structure of this thesis

Initially, the concept of social media, self-regulation, and social media addiction will be clarified. Social media addiction as a term is relatively new but the concept of different medias being viewed as an addiction has been researched for decades. Furthermore, this thesis' theory will be addressed combined with existing research in this field. Social cognitive theory and uses and gratification theory will be addressed and connected to social media addiction and self-regulation. Previous research will be presented throughout this section. This thesis' methodical approach will be presented, its design, procedure, sample, and analytic strategy. The procedure section will describe in detail how the data was collected and

report reasons why this procedure was chosen in order to show transparency. Additionally, strengths and weaknesses of this thesis' methods will be accounted for. Furthermore, the results will be presented in tables to create an overview of the exact data. The thesis' findings will then be discussed in light of this thesis' theory and previous empirical studies. The discussion section also elaborates on practical implications as well as independent reflections and suggestions. Finally, research questions will be answered and a conclusion will be made. Necessary appendixes are attached at the end of the paper and will be further explained throughout the thesis.

1.3 Clarification of concepts

1.3.1 Social media

Social media is a complex term with several definitions as it is constantly expanding due to its part of a fast-changing, digital world. Most people would probably think of social media as digital platforms where one communicates with one another, such as Facebook, Twitter, and Instagram. As correct as this belief might be, some researchers are looking for a definition that describes social media rather than a definition that describes social network services. Researchers claim that the perception of these two being conflated is problematic (Carr & Hayes, 2015, s. 49).

The Norwegian media expert, Ida Aalen (2015) claims that social media is a "sack concept" that lacks a clear definition and that social network services is a subgenre within social media (s. 19). Unlike social media which is a rather vague term, there is a clear, recognized definition of social network services:

> *A social network site is a networked communication platform in which participants 1) have uniquely identifiable profiles that consist of user-supplied content, content provided by other users, and/or system-level data; 2) can publicly articulate connections that can be viewed and traversed by others; and 3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site.* (Ellison & Boyd, 2013, s. 9).

This definition was presented in 2007 and updated in 2013 due to the evolution of social network sites. The definition clearly describes that each participant of a social network site

has its own profile in which one can "friend" or "follow" other profiles. The participants can also see every profile's "friends" or "followers" list as well as "comment" or "like" based on what the platform provides. Even if the definition covers most frequently used social network services, there are still some communication media that fall outside the definition, such as Snapchat for instant. Participants of Snapchat do not have a profile and they cannot see their "friend´s" "friend"-list (Aalen, 2015, s. 20).

Ellison & Boyd´s definition of social network services has been conflated with the term social media which is seen as problematic because not all social media are necessarily social network services. Some researchers are concerned that the misperception of the definition has led to imprecision in some of the literature around social media, which could prevent theoretical development of social media more broadly (Carr & Hayes, 2015, s. 49). Caleb T. Carr and Rebecca A. Hayes (2015) argue that social media needs to be more theorized and that the term needs a clearer definition that is precise and robust enough to encompass both currently and future social media (s. 47).

Based on several definitions, the authors have developed a new definition of social media that they review as precise and temporally, and that is focusing on its traits and characteristics as well as how it is consumed. They have created two definitions, one more complex and technical than the other. For the present thesis, the following more detailed and accessible explication will be used (Carr & Hayes, 2015, s. 49-50).

> *Social media are Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others.* (Carr & Hayes, 2015, s. 50).

1.3.2 Self-regulation

Self-regulation is a relatively broad concept with different definitions. Nevertheless, scholars agree on some aspects that are central to self-regulation. First, the ability to regulate thoughts and behaviors by inhibiting impulses, such as to what degree an individual is able to regulate an automatic reaction. The second is working memory, which entails remembering information and processing it. The third central aspect is flexible attention, which is the ability to control the attention such as to hold and replace focus (Strand, 2020; ten Braak et al.,

2019). These three components are often referred to as core executive functions (EF). EFs are being explained as a collection of mental processes which are being used when one has to show consideration or concentrate on something when one is in a situation where relying on instinct, intuition or automaticity would be insufficient or impossible (Burgess & Simons, 2005, s. 136; Diamond, 2013; Espy et al., 2004; Miller & Cohen, 2001). Self-regulation is often mentioned together with these EFs and the two are often used interchangeably. Diamond (2013) states that these EFs are essential for mental and physical health, and also a prerequisite to succeed at school and life in general (s. 136).

During adolescents, self-regulation can be an important protective factor when it comes to preventing youths to engage in risky behavior (Moilanen, 2007, s. 835). Moilanen uses a quite explainable definition of self-regulation She defines self-regulation as:

> *...the ability to flexibly activate, monitor, inhibit, persevere and/or adapt one´s behavior, attention, emotions and cognitive strategies in response to direction from internal cues, environmental stimuli and feedback from others, in an attempt to attain personally-relevant goals* (Barkley, 1997; Clayton, 2001; Demetriou, 2000; Finkenauer et al., 2005; Lengua, 2003; Moilanen, 2007, s. 835; Thompson, 1994).

1.4 What is it with social media that makes adolescents so engaged with it?

The Norwegian media supervision regularly performs survey studies that deal with children and media. Their last survey from 2020 had about 3400 participants that were children between the age of 9 to 18 from 51 schools from all counties in Norway. The main results showed that 90% of the children were using one or more social media networks or apps. The five most popular social media platforms were YouTube, Snapchat, TikTok, Instagram and Facebook (Medietilsynet, 2020, s. 2). A marketing leading company Deloitte did a similar survey conducted in 2019 with 1023 respondents between the age of 14-82. One of the groups were named Generation-Z (Gen-Z) and was between the age of 14-21 (Gullaksen & Finnevolden, 2020, s. 2). Regarding Facebook, Snapchat, Instagram and TikTok, Gen-Z had the highest score when they were asked to submit which social medium they used the most during a normal week. One exception was Facebook which scored the highest among the elders. The respondents were also asked to submit how many hours they were using social media every day on average. Gen-Z had a superior score of 3,7 hours per day (Gullaksen & Finnevolden, 2020, s. 17). This agrees with international statistics mentioning YouTube,

Instagram, Snapchat, Facebook and TikTok as some of the most popular social media platforms among adolescents in the United States (AudienceProject, 2020). Another international survey also showed that American teenagers had an average of almost 8 hours per day watching a screen (Media, 2019). Social media does most likely take up a lot of this screen time.

These surveys are occasionally presented to the society through online newspapers and articles with shocking headlines concerning our younger generation spending too much time connecting through technical devices instead of in real life. Such articles in newspapers are often read by the elder generations who might be influenced to think of social media as this new phenomenon that contributes to a negative development for "our children". It seems like the society has created these notions based on their own experiences from younger days when people didn't have smartphones, which might make it difficult for the elder generation to comprehend the fact that most of "our children" spend a large amount of their spare time on social media. It might be difficult for them to face the reality of the younger generation just because they can't relate. However, the adolescents of today have been grown into this life of always being connected. For them, it is natural, they don't know any better. Using these apps every day has become a part of the adolescents' life, *it is a way of being* as Kuss and Griffiths (2017) expresses it (s. 5).

With that in mind, what makes social media so obsessive for adolescents? Firstly, being on social media has been referred to as a "lifestyle of being on" and it has also become the "status quo" (Kuss & Griffiths, 2017, s. 5). Being on social media has become so normal for adolescents that it is somehow strange not to be "on". According to research, the motivation of being on social media is driven by information seeking, identity formation, and entertainment, among others. It has also been discussed in the light of Maslow's hierarchy of needs: meeting the needs of safety, love and belonging, esteem, and self-actualization (Kuss & Griffiths, 2017, s. 5).

Information seeking can be referred to as searching for specific information using social media (Kuss & Griffiths, 2017, s. 5). Searching for information is often driven by the natural human behavior of being curious. Internet, especially social media have never made it easier for people to find the wanted information quickly and anonymously. Social media platforms are made to keep the users wanting more and encourage people to be curious. For companies

that stand behind social media platforms, it is business, however for the users, it could turn into excessive information seeking that can contribute to negative outcomes (Aalen & Iversen, 2021, s. 75).

Adolescents use social media for several purposes, especially for finding information about other people. One can form an impression of other people just by looking at what they are posting on their social media platforms, such as who they are friends with, what kind of pictures they post, what they write and what they like (Schoenebeck et al., 2016, s. 1477). The motivation of looking is often based on getting an overview or some background information of a person often before meeting them which is socially acceptable and almost expected amongst adolescents (Aalen & Iversen, 2021, s. 75). Identity formation is about presenting oneself online, often more favorably than offline (Kuss & Griffiths, 2017, s. 5). Adolescents effortlessly share real information, pictures, videoes and comments public online without thinking of potential negative consequences. Because they are adolescents they are inexperienced and have a limited capacity of self-regulation and may be at risk of experiencing unfortunate outcomes when using social media (Herring & Kapidzic, 2015, s. 2).

The need to promote one self from the best side may bound in the primary need of self-affirmation which can be referred to as a fundamental need to see oneself as valuable, worthy, and good (Toma & Hancock, 2013, s. 322). Social media is also used for the purpose of being entertained (Kuss & Griffiths, 2017). Through smartphones, people can be entertained every minute of every day. The question is, however, is it necessary to be entertained every single moment? People often use their phone during a normal, boring every-day activity, such as going to the bathroom and doing homework. It makes the activity seem more fun. However, it could eventually turn out to be a problematic usage due to a constant need of using the phone whenever one is doing a normal everyday activity (Aalen & Iversen, 2021, s. 110-113).

1.5 Social media addiction

Addictive use of social media is explained and compared to any other similar behavioral addiction (Andreassen et al., 2017, s. 288) that does not involve the ingestion of a drug, such as gambling, sex, exercise, gaming, and internet addiction (Griffiths, 2005, s. 191). Social media addiction is defined as "being overly concerned about social media, driven by an uncontrollable motivation to log on to or use social media, and devoting so much time and effort to social media that it impairs other important life areas" (Andreassen & Pallesen, 2014,

s. 4054). However, there are disagreements in the literature about using the addiction term, especially among addiction researchers and social psychologists (Aalen & Iversen, 2021, s. 111). Critics claim that uncritical use of the term can result in a dilution of addiction as an actual mental illness and it can contribute to morbidity of quite common lives (van Rooij et al., 2017, s. 269-270). Many researchers choose to use the word "problematic" rather than addiction. In this thesis, the terms will be used interchangeably.

Many studies, adopting several different approaches, have tried to explain the association between social media addiction and human characteristics. One large and highly recognized study assessed the relationship between addictive use of social media, narcissism, and self-esteem in about 23 500 Norwegians. The results showed that problematic use of social media often occurred in those who had low self-esteem. It was also associated with being young, low educated, single, and female as well as having narcissistic personality traits (Andreassen et al., 2017, s. 287). Another study, in about 6600 adolescents, showed that 4.5% belonged to the risk group based on the Bergen Social Media Addiction Scale (BSMAS) and reported low self-esteem, high level of depression symptoms, and elevated use of social media (Bányai et al., 2017, s. 1). Positive correlations between social media addiction and mental health, including self-esteem, were also found in another study performed on about 250 college students. The researchers tested the effectiveness of an intervention in reducing social media use and its potential adverse outcomes. They found that the intervention was effective and that less time spend on social media improved the students' mental health (Hou et al., 2019). Taken together, these studies show that low self-esteem, high level of depression symptoms, and narcissistic personality traits may be risk factors for developing problematic social media use. However, these studies did not include a measure of self-regulation – another factor that has been found related to social media addiction (LaRose, 2001, s. 399).

2.0 Theory and Empirical Research

2.1 The six components model of addiction in a social media addiction perspective

Griffiths (2005) has formulated six components that he claims that all addictions consist of. These are *salience, mood modification, tolerance, withdrawal, conflict,* and *relapse*. He sees addiction as a part of a biopsychosocial process and claims that all excessive behavior seems to have the mentioned components in common (s. 192-193). Griffiths components model is highly recognized and has been the most widely used criteria to assess and diagnose social media addiction (Luo et al., 2021, s. 281). However, researchers have concluded that social media addiction cannot be denoted as a real mental illness due to a lack of consistency in research findings (Aalen & Iversen, 2021, s. 110). Griffiths (2019) himself stated that some of the components are not "peripheral" to addiction (s. 180), meaning that social media usage only meets some of the criteria (Aalen & Iversen, 2021, s. 110). Furthermore, he claims that excessive use of social media does not necessarily lead to negative consequences and that the best approach for identifying those who are at risk of behavioral addictions is to consider the activity on the basis of the components (Griffiths, 2019, s. 181). That is, the context must be considered in assessing whether the behavior is problematic or addicted (Aalen & Iversen, 2021, s. 110).

Salience refers to when a particular activity gets so important in one's life that it dominates a person´s mind, emotions, and behavior. Even if the person is not engaging in the activity at that time, it will still be on their mind for when next time will be (Griffiths, 2005, s. 193). Such as for students urging to check their phone after being unable to during school hours. *Mood modification* refers to the subjective experience of proceeding the activity (Griffiths, 2005, s. 193-194). Using social media can achieve pleasurable feelings or have a numbing effect (Kuss & Griffiths, 2017, s. 6). *Tolerance* is about increasing the amount of the particular activity in order to accomplish the same affect, such as with drugs (Griffiths, 2005, s. 194). In order to accomplish the same feeling when using social media initially, the amount of it needs to be increased (Kuss & Griffiths, 2017, s. 6). *Withdrawal* refers to emotions that appear when a person does not have access to the activity (Griffiths, 2005, s. 194) which can lead to negative psychological and physiological symptoms (Kuss & Griffiths, 2017, s. 6). *Conflict* refers to the relationship between the addiction and the people around or the individual´s own concerns about the activity. This means that a person´s addiction will affect

personal relationships, work or educational life, and other social or recreational activities (Griffiths, 2005, s. 195). It can go beyond a person´s social environment (Kuss & Griffiths, 2017, s. 6), such as replacing physical contact with family and friends in order to spend more time on social media. *Relapse* is the tendency of repeating the activity even if a person tries to quit over a specific period. Griffiths (2005) exemplifies this with smokers who often try to quit smoking but end up relapsing after some time (s. 195). In a perspective of social media addiction, this can happen in the same way as a person can experience negative psychological and physiological symptoms when not using social media which can end with a relapse in order to avoid those unpleasant symptoms (Kuss & Griffiths, 2017, s. 6).

Griffiths (2005) claims that all components need to be present in the terms of defining that someone suffers from an addiction. Some individuals engage in behavior that has additional elements and do not end up as addictive and other individuals can have excessive behavior without it being in conflict with parts of their lives. Any addiction will be affected by a number of factors in a human being, both individual, structural, and situational factors (s. 195). He compares addiction with something to be overly enthusiastic with and claims that "…healthy enthusiasms add to life whereas addictions take from it" (Griffiths, 2005, s. 195).

2.2 Social media addiction and self-regulation

2.2.1 Social cognitive theory

Research about media addiction and self-regulation is often presented from the perspective of Albert Bandura´s theories on social learning and social cognition (Dabbagh & Kitsantas, 2012; Khan et al., 2021; LaRose & Eastin, 2004; LaRose et al., 2003). Researchers have used social learning theory to comprehend social media addiction, but social cognitive theory can be just as effective to use because social media addiction involves human behavior and cognition (Khan et al., 2021, s. 2).

Bandura formed the social learning theory in the 1960s which he later developed as social cognitive theory in 1986 because he accepted that learning occurs in a social context. In this perspective both the external behavior, inner cognitive and emotion characteristics, and social environment are three factors that are related to each other (Imsen, 2014, s. 66). Later, Bandura connects this to self-regulation and states that "…human behavior is extensively motivated and regulated by the ongoing exercise of self-influence" (Bandura, 1991, s. 248).

The process of self-regulation operates through three principal subfunctions. These are self-observation (also referred as self-monitoring), judgmental process, and self-response. It will also be affected by self-efficacy which plays a role in developing self-regulation in terms of thought, affect, motivation, and action (Bandura, 1991, s. 248-257).

Self-observation involves an individual's ability to pay attention to one´s own actions in order to see if own behavior complies with the behavior that is required in a specific context. It is about collecting information in order to understand the impact of own behavior in relation with others and the environment.

The judgmental process refers to the ability to evaluate own behavior based on self-observation. This assumes that the person has some inbuilt standards, such as personal experiences with earlier behavior. Based on these standards, the person can evaluate their own behavior in a new social context.

Self-response process provides rewards based on the person's own experience of a situation. It is about receiving a reward such as self-respect or self-satisfaction when a person manages to act the way that is desired in terms of one´s own standards (LaRose et al., 2003, s. 232). This is also connected to self-efficacy which plays a large role when exercising self-regulation (Bandura, 1991, s. 257).

Self-efficacy refers to a person's expectations of what one is capable of. Those expectations are central in terms of what activities a person embarks on and to what extent the person has the energy to perform it. Bandura distinguishes between two expectations: efficacy expectations and outcome expectations. Efficacy expectations refers to the expectation of managing the actions that are necessary to reach a goal. Outcome expectations are the expectations of an outcome that follow from the action (Bandura, 1977, s. 191-194). Bandura claims that "Self-efficacy beliefs function as an important set of proximal determinants of human self-regulation", which influences choice, aspirations, effort, thought patterns, stress, and vulnerability (Bandura, 1991, s. 257).

Regarding self-regulation and motivation, researchers also point at the difference between the ability to self-regulate and the deficient ability of self-control (Muraven & Slessareva, 2003, s. 894). Pål Kraft (2014) exemplifies this with a person that just stopped smoking and suddenly the urge for a cigarette appears. In that moment of lighting a cigarette, a rich uncle appears at the doorstep and offers the person one million dollars to stop smoking. He claims that to activate self-regulation is hard work and that it is often easier to give in. However, if a person manages to control themselves to a successful result a reward of

pleasantness will appear (s. 62). Most researchers agree that deficient self-control is connected to being addicted to something (Kraft, 2014, s. 104). This can show how social media addiction is related to self-regulation.

2.2.2 Uses and gratification theory

Researchers have also used the uses and gratification theory to explain and understand why people actively search after specific media in order to gratify specific needs (Balakrishnan & Griffiths, 2017, s. 365-366). Uses and gratification theory is used to understand media research: how and why people actively seek different medias in order to gratify specific needs (Tanta et al., 2014, s. 86). According to Lundberg and Hulten (1968) there are five principles that formed the uses and gratifications theory. These are: (1) the audience are active and not passive, they react in different ways determined of what media offers them. (2) Media choice lies with the audience member who also decides if the media offers their specific needs. (3) Media competes with people's attention for need satisfaction. (4) People are not aware of what they are searching for, however people know what they want when they are searching for one specific medium and not another. (5) Medias' cultural meaning is decided by the audience (Blumler, 1974). Katz, Blumer and Gurevitch (1974) stated this: "Instead of depicting the media as severely circumscribed by audience expectations, the uses and approach highlights the audience as a source of challenge to producers, to cater more richly to multiplicity of requirements that is disclosed" (s. 31). They assume that the power lies in the active user, and the idea of liking or having a need for media relies on the user.

However, this has been challenged by LaRose et al. (2001) who state that the formulation of gratifications is seemingly indistinguishable from the important mechanism in social cognitive theory - enactive learning - which describes how humans learn from experience (s. 397). They compare this to interactions with the environment in social cognitive theory, which according to Bandura (1986), influences media exposure by continually reforming expectations about likely outcomes in behavior based on using media. The researchers explain that this describes the same process among the gratification theory with media behavior, and recognizes this parallel before applying social cognitive theory to internet usage (Larose et al., 2001, s. 397).

Even if Larose et al´s study (2001) focuses on internet usage and not social media in specific, it can still be helpful in terms of understanding the connection between self-regulation and

media use. Firstly, according to Bandura's social cognitive theory (Bandura, 1999) getting addicted to something shows the failure of self-regulatory functions and LaRose et al. (2001) has conceptualized deficient self-regulation as the mechanism of internet addictions (in Larose et al., 2001, s. 398). By applying the social-cognitive theory to internet usage, expected outcomes of usage are being discussed, both the positive and the negatives (LaRose, 2001, s. 398). That is, what motivates an individual to use the internet? Could it be to find the information one was searching for or making valuable social relations? Such positive outcomes should probably increase internet usage. On the other hand, having the computer freeze up while searching the Web should discourage use. With regard to self-regulation, such mechanisms are important when a medium requires intense self-reflection. The self-response function may be repealed if an individual has a dysfunctional self-system, such as self-disparagement of one's abilities to use the internet. An individual can either proceed the usage in the face of errors or stop in order to aversive negative outcomes. Self-disparagement can even affect those who have high levels of internet self-efficacy if they compare their abilities with unrealistic standards set by the most accomplished internet users (Larose et al., 2001, s. 398). Furthermore, the researchers claim that deficient self-regulation is another form of addiction in a social-cognitive perspective and state that "…users are aware that the time they spend online is excessive and disruptive but suspend their comparisons to desirable standards of conduct" (Larose et al., 2001, s. 399).

2.2.3 Empirical research

Several studies have found correlations between self-regulation and social media addiction or excessive use of social media. One study investigated the impact of social media addiction on employee strain and task performance through work-technology conflict and self-esteem. They studied 282 employees working at information technology companies in China. They found that social media addiction increased work-technology conflict and had a negative impact on self-esteem. Self-regulation moderated the link between them. In the light of social cognitive theory this means that the individuals' self-regulation plays a role in the degree to which they develop addictive behavior (Khan et al., 2021, s. 1).

Another study assessed the relationship between problematic smartphone use and self-regulation, among others, in 475 Chinese University students (Yang et al., 2019, s. 596). The researchers treat problematic smartphone use as any other behavior that compromises all of the components for addictions in Griffiths (2005) components model (Yang et al., 2019, s. 597-598). In that case, this could be related to social media addiction because it is both based

on the same model and social media may be what most people spend a lot of time on while they use their phone. Furthermore, they found that problematic smartphone use was significantly and negatively predicted by self-regulation which indicated that improving self-regulation could be one way of addressing problematic smartphone use and other related problems (Yang et al., 2019, s. 606). This supports other research and amplifies that problematic use of internet may indicate deficient self-regulation and in order to improve a possible problem regarding use of internet one could point the focus towards improving an individual´s self-regulation. (LaRose et al., 2003, s. 225).

Some researchers claim that the symptoms of internet addiction that have been conceptualized earlier in research, such as by Griffiths components model (2005), should be redefined as deficient self-regulation. This is because researchers found deficient self-regulation as a continuous variable that was systematically related to usage even in those who did not reach the threshold of an internet addiction. Based on the results, they claim that deficient self-regulation contributes to form media habits which could be harmful, but not necessarily in that extend that it is addictive (LaRose et al., 2003, s. 243). This can yet be perceived as a discussion of concepts which will not be further discussed in this thesis. It is however meaningful for this study to view this distinction between deficient self-regulation and media addictions in order to understand how they can be connected.

2.3 Academic achievement

Academic achievement or school results refers to how a student has performed in a given school, over a given amount of time after a specific curriculum. The measurment of school results can depend on different countries or other geographic areas the school is located in. In Norway, all primary and high schools, public and private (with few exceptions), follow the same education law and the same curriculum (Act, 1998, s. § 1-2). This means that all students receive their school results based on the same criteria in each grade.

All students in the Norwegian school system have to attend 10 years of formal schooling, of which seven years in primary school and three years in lower secondary school. The students start school in 1st grade, the year they turn six years old, and finish lower secondary school in 10th grade, the year they turn 16 years old. After lower secondary school, it is optional and strongly recommended to attend upper secondary school for three years. After the student has

graduated from upper secondary school, they can attend higher education. All education in public schools and universities in Norway is free of tuition (Thune et al.).

When students in Norwegian schools are finished with primary school and are attending lower secondary school, they start receiving grades. Tests and exams are then being measured against a scale ranging from one to six where six is the best grade. Every semester, the students receive an assessment for each subject that shows how the student has performed in that particular subject that semester. This assessment can be with or without grades (Utdanningsdirektoratet, 2022b, s. 1-2). This thesis uses grades, specifically grade point average, because students in this sample had grades as their assessment. At the end of the semester, the student will receive an overview of all grades for each subject which becomes their school result for that particular semester. This is called the "half-yearly assessment" which the students receive at the end of the fall semester and at the end of the spring semester. When graduating 10th grade they receive their "final assessment" which is also their diploma (Utdanningsdirektoratet, 2022a, s. 1-2).

2.3.1 Academic achievement and social media addiction

One study (Hou et al., 2019), also mentioned earlier, tested the effectiveness of an intervention in reducing social media addiction and its potential adverse outcomes. They investigated college students' academic performance and found negative associations with social media addiction (Hou et al., 2019). The intervention on reducing social media addiction made students more engaged in learning and made them spend more time learning outside of class. The researchers reason about possible explanations for this and highlight that students addicted to social media spend more time online and less time studying. Excessive use of social media can be distracting which makes it difficult for students to stay focused, and it may affect their memory in terms of learning (Hou et al., 2019). This suggests that indeed there may be a relation between students' social media addiction, their self-regulation and their academic performance.

Another study had similar results and found social networking addiction to be negatively related to students' academic performance (Azizi et al., 2019, s. 1). This study highlighted features that could have affected students' academic performance indirectly. Although, they did not measure time spend on social media, they discuss time spend on social media to be decisive: increased time spend on social media reduces students' academic performance and opposite, reducing social media use should increase students' academic

performance. They discuss excessive use of social media against deficient sleep which could increase the level of stress and anxiety which also affects students learning (Azizi et al., 2019, s. 5-6). These two studies were done on college and university students.

One study (van den Eijnden et al., 2018, s. 697) conducted amongst adolescents in the age range from 12-15, assessed, amongst other things, the impact of disordered use of social media on psychosocial well-being and school performances. Like the other studies, this study also found that heavy social media use predicted a decrease in school performances The students' levels of social media disorder were measured against the students' grade point average (GPA). The study found excessive use of social media to have a small adverse effect on GPA and that this only appeared in girls. The researchers claim that even if the size of this effect is small, it is important to take it seriously because the negative affect on school performances is more outspoken among subgroups of adolescents who are more likely to be distracted by social media. They claim that it is important to focus on the potential dispositional factors that moderate the effect of excessive use of social media on school outcomes (van den Eijnden et al., 2018, s. 703-704). Similar results were found in another study conducted in adolescents where one of the aims was to analyze perceived academic competence that predicted social media addiction in high school students (Akbay, 2019, s. 559). The students who saw themselves as academically competent had less risk of developing social media addiction. This appeared as a third variable predicting social media addiction which means that this was not a decisive factor, but yet an important finding which must be treated seriously (Akbay, 2019, s. 563-564).

3.0 The present study

As described above, social media addiction can have serious consequences. Several studies show that problematic internet and/or social media use can have a negative impact on students' academic performance (Akbay, 2019; Azizi et al., 2019; Hou et al., 2019; van den Eijnden et al., 2018). Several studies also show that self-regulation may play a role in this problematic use (Khan et al., 2021; Kraft, 2014; LaRose et al., 2003; Yang et al., 2019). However, most studies use university or college students and there is a gap regarding the relations between social media use, self-regulation, and academic achievement in adolescents. Therefore, the main aim of this study is to investigate the connections between level of social media use, ability to self-regulate, and academic performance in 13 to 16 year old adolescents. The following specific research questions are asked:

1) How does social media use predict academic achievement in adolescents?

It was expected that social media use (level of addiction and time spend on social media) negatively predicted academic achievement. That is, high scores on social media use will be associated with lower scores on academic achievement.

2) How does self-regulation predict social media addiction in adolescents?

It was expected that self-regulation negatively predicted social media addiction.

That is, high scores on self-regulation will be associated with lower scores on social media addiction.

4.0 Method

4.1 Methodological approach

In order to respond to this thesis' issues, quantitative method was chosen because it is best suited when studying connections between different variables. Quantitative method has been defined as something that explains a phenomenon through collecting numeric data and analyzing them using mathematic approaches, thereby statistics (Apuke, 2017, s. 41). It is a research method that often includes several units (Grønmo, 2021). In this study, the units were individuals and through this method, information of each one of them was collected. Social media in the perspective of an addiction is a relatively new concept but the use of social media has increased throughout the past recent years. This means that this topic needs actualization, moreover more research and theory. In that case, quantitative method is suited because it can test hypothesis and assumptions (Høgheim, 2020, s. 64).

4.2 Research design

Within quantitative method, cross-sectional design was chosen to gather information about the participants. Cross-sectional studies collect information about a population at one given time (Field, 2018, s. 16). It is normal for small studies such as a bachelor or master´s thesis to use this method because it is cheap and less time-consuming (Setia, 2016, s. 262), which is also the reason for why it was used in this study. Choice of design was influences with the given circumstances. Today's society is yet characterized by the corona pandemic which made it challenging to perform specific research methods. This was also a reason for choosing cross-sectional design because it gave an advantage in relation to the practicality of collecting data. However, cross-sectional designs do not make it possible to consider causality accurately, but one could interpret, assume and discuss possible causes for why receiving specific results (Høgheim, 2020, s. 118). In order to collect data about the participants, I created a digital survey. Surveys can gather data about individuals' attitudes, opinions, behavior, experiences, and other characteristics of the population (Creswell, 2011; in Høgheim, 2020, s. 98). This is a recognized method for collecting data systematically and offers the researcher to collect information about many participants effectively (Høgheim, 2020, s. 98). Hence, in accordance with the society's circumstances it was chosen to have the survey digital. This made it possible to conduct regardless of any upcoming restrictions. To

have the survey digital would also be less time consuming which was necessary to consider when choosing the method at that time.

4.3 The survey

The survey was made in Nettskjema.no, a safe service for students collecting data through the internet (UiO). Nettskjema.no made it easy to transfer data into Microsoft Excel and further into a digital program to conduct statistical calculations. It consisted of 41 questions in total and took about 15 minutes to complete. When opening the survey there was first a brief introduction about the questions, a reminder of truthfulness and accuracy when answering the questions and voluntariness and anonymity. The first and only obligatory question was to give consent to proceed the survey. The remaining questions were all non-obligatory and it was informed that the students were free to skip questions they did not understood or did not want to answer. Firstly, there were general questions asking for date of birth, gender, grade level and the grade point average from the students' half-year assessment from fall 2021. Secondly, there were questions about the students' social media use. These were the questions from the BSMAS and a question asking for the amount of time the students believed that they spend on social media in average during a day. Lastly, there were questions about the students' ability to self-regulate.

4.4 Procedure

In order to show transparency in this thesis, the process of how this project was conducted will be explained in detail. First step after choosing method and design was to find schools to participate in the project. I contacted several schools in Rogaland and two schools accepted to participate. The management of the two schools got sufficient information about the project and were able to ask questions at any time. The contact went through me and the principle in one school and a teaching-inspector at the other school. When informing the management it was aimed to explain the project as short and precise as possible. This was because I wanted them to feel like my project was easy and possible to conduct without a lot of complications. It was important for me to express understanding for the employees at the schools as I knew that they were affected by the ongoing pandemic. The schools' management was therefore informed that the project should be implemented in a way that would not feel like extra work for the employees. This project´s plan was presented to them and approved with adjustments along the way.

Information letters and statements of consent were handed out first. The information letter included the projects purpose, practical information of how the study would be conducted, what it would mean for the student to conduct, and ethical guidelines. It was also informed that the project would collect data anonyms. The statement of consent was included in the last page of the information letter. Since children were studied, parents needed to give consent on behalf of the children. This was always a part of the plan even if this is not a formal demand. That is, a formal demand to collect consent if sensitive information about the children is involved (Høgheim, 2020, s. 89). As a researcher I had to consider children as a vulnerable group. Children have a special requirement for protection because they have a limited ability to make a considered choice to participate in research or not, which is something researchers should be aware of (Høgheim, 2020, s. 89). The information letter was produced by me and my supervisor with help from templates developed by the Norwegian center of research (NSD) (NSD). At this point, the project was ready to search for approval at NSD.

A formal demand for this master thesis was to report the project to NSD. This is a part of following the research ethics guidelines which is generally about researching with a general respect of human dignity (Høgheim, 2020, s. 88). After being in touch with NSD, there were some changes that needed to be made before they could approve the project. Firstly, they did believe that the information I was planning to collect was in fact sensitive information. They meant that some of the questions in the survey were open for the participants to express emotions and psychosocial conditions. This was connected to health information and thereby special categories for personal information. Therefore, I needed to report this in the application. Secondly, I could not state that the project was anonymous in the information letter because I would in fact collect statement of consent´s with the student and their parent´s name on it before conducting the survey. Specific sentences were therefore rephrased in the information letter. However, it is important to mention that participants' and parents' names were only collected for consent. The survey data was anonymous and participants' names were not connected to the data. This means that me and my supervisor had access to the participants' answers, but there was no way for us to identify which data belonged to which participant. As researchers we have a duty of confidentiality of all collected data (Høgheim, 2020, s. 90). Lastly, I was advised to create a modified information letter for those who were 16 years old and older. This is because children ranging from 16 to 18 have the right to consent for themselves in research that involves sensitive information (Høgheim, 2020, s. 89).

The project was eventually approved by NSD (Appendix A). For a full reading of the final information letter, see appendix B. The information letter for those who were 16 and older is almost identical. Some words were rephrased so that the information letter was written directly to them and not to potential parents as appendix B is written.

The information letters were printed and handed out. The plan was to physically visit the schools and each class to inform the students about the project and to hand out the information letters. It was planned to visit each class as short and precise as possible in about five minutes because I did not want to take up a lot of the teachers' time as I knew they were under pressure to manage everything in the ongoing pandemic. This went as planned and I even used a shorter amount of time in some classes. The information was handed out on a Monday and the students were told orally to take it home and read it together with their parents before delivering it back to the school Friday same week. I wanted to give the students a submission deadline for one working week so that they would have some days to consider if they wanted to participate or not. I told the students that I was coming back that Friday to hand in the statement of consent and if they did not have it within that Friday, they could not participate in the survey. I came back to the schools the Friday that was planned to collect the consents and unfortunately experienced a lot of missing consents. Several students expressed that they have forgotten to show it to their parents and that they really wanted to participate anyway. That made me postpone the submission deadline because I was lacking a lot of participants. A new submission deadline was made which ended up being two days before the survey should take place. I came back this new date which was a Wednesday and collected the remaining statements of consents. An overview was created of those who were going to participate and those who were not. This was necessary to avoid giving the survey to a student that had not been receiving consent from their parents. The overview was sent to the management of the schools. I also prepared a document for teachers or other adults that were going to be present in the classrooms during the survey. This document included practical information on how the students would receive the survey and how the adults should act during the survey. It was informed that adults should have minimal or no contact with the students when the survey took place. The only interaction would be to answer technical questions or translation were the language would be a challenge, such as with multilingual students. The plan for those who were not going to participate in the survey was to implement a teaching scheme digitally so that every student was sitting by their computer whether they conducted the survey or not. In that way, issues of students feeling left out was avoided. This

teaching scheme was made by me and involved students' social media use in line with the Norwegian curriculum under a particular competence aim in the Norwegian subject after grade 10th (Utdanningsdirektoratet, 2020a, s. 9). The teachers were informed that this teaching scheme was voluntarily to use as some teachers would probably find other tasks for those who were not participating in the survey.

The survey was conducted in both schools March of 18, 2022. That morning the schools management received a link to the digital survey. They forwarded the link to the teacher of the classes so that they could publish it on the classe´s digital platform (Google classroom) so it was easy and quick for the students to get access from here. In this way the teachers could implement the survey at whenever time that was best suited for that particular school day, as long as it was implemented on that particular Friday. Through nettskjema.no I had full access to responses coming in during the day including reports of each respond. The link was closed at the end of that school day and all data was finally collected.

4.5 Participants

The population for this study was all students in lower secondary schools in Norwegian. That is, all adolescents within the age of 13 to 16 which is the normal age for lower secondary school. This was the group of people that was intended to study. I chose this group because research shows that a high percentage of this age group is on social media.

I believed that it was the most suited group to research in relation to the topic. According to a large Norwegian study done on children between the age of 9 and 18, 90% is on social media (Medietilsynet, 2020, s. 2). The study showed 99% of the teenagers from thirteen to seventeen years old was on social media (Medietilsynet, 2020, s. 13). In order to draw a selection I needed to benefit from a target population which means people from the population that are accessible in terms of where the research is conducted (Høgheim, 2020, s. 121). There was therefore made a non-probability selection - a so called convenience sample - which takes accessibility into account (Høgheim, 2020, s. 122-123). This ended up being two schools in Rogaland which I was acquainted with. The schools had about 250 students in total who were asked to participate in this study. Out of these 250, 139 students received consent to participate in the study. The final sample was therefore 139 students in lower secondary school at two schools in Rogaland. The sample consisted of 78 girls, 59 boys, one whom

"wished not to answer" about gender and one missing. The students age was ranging from 13-16. As date of birth was stated, this gave an average age of 14,84.

4.6 Measuring instruments

4.6.1 Social media use

4.6.1.1 BSMAS

Social media addiction was measured with the Bergen Social Media Addiction Scale (BSMAS) which was developed by Cecilie Schou Andreassen and her colleagues (Andreassen et al., 2017) and is an adapted version of the Bergen Facebook Addiction Scale (BFAS) (Andreassen et al., 2012). BFAS was developed during a time were Facebook was by far the most popular among social networks (Andreassen et al., 2012, s. 502; Carlson, 2011). In recent years there has been an evolution around social media and people use several social media networks which is likely why the BSMAS was developed. The adaption of the BFAS involves replacing the word *Facebook* with *Social media* only (Andreassen et al., 2016, s. 254).

The BSMAS is based on Mark Griffiths (2005) components model of addiction which he means are distinct, common components in all addictions. These components are salience, mood modification, tolerance, withdrawal, conflict, and relapse (s. 192-193). The scale has six items designed to reflect the mentioned components and is measured up against a five-point Likert scale. The question is "How often during the last year have you…" and the responses is ranging from (1) *very rarely* to (5) *very often*. The total score ranges from 6-30, with higher scores referring to higher indications of addiction (Andreassen et al., 2016, s. 254). BSMAS can be scored using a polythetic scoring scheme (i.e., scoring 3 "sometimes" or above on at least four out of the six items) or a monothetic scoring scheme (i.e., scoring 3 or above on all six items) (Andreassen et al., 2012, s. 512). However, I have decided to treat the data continuously because research claims that even just a little addiction can have consequences for individuals (LaRose et al., 2003, s. 226). The Norwegian questionnaire has also been used in a master's thesis where Andreassen herself was the supervisor (Shabi, 2020, s. 74). The complete questionnaire is attached as an appendix at the end of this thesis (Appendix C).

4.6.1.2 Time spend on social media

The reason for wanting to gather information on time spent on social media is because this often plays a role when identifying excessive or addictive behavior in a social media context. Researchers have addressed that time spend on social media can be decisive in how it affects students academic achevement and mental health. More hours on social media reduces the time spend on learning outside of school (Hou et al., 2019, s. 10). Exessive hours on social media could also go beyond the adolescent sleep-quality which could increase the level of stress and anxiety which again can affect their learning (Azizi et al., 2019, s. 5-6). It was asked how many hours were spent on social media on average every day and that the student should choose the alternative which felt was most accurate for themselves. The alternatives ranged from (1) *Under an hour*, (1,5) *Approximately one and a half hour*, (2) *Approximately two hours* and so on until (6,5) *Over six hours*.

4.6.2 Self-regulation

4.6.2.1 ASRI

The Adolescent Self-Regulatory Inventory (ASRI) is developed by Kristin L. Moilanen (2007) and measures short-term and long-term self-regulation in adolescents. Through 37 items, the informants get measured in multiple aspects of self-regulation, such as behavioral, attentional, -and cognitive demands. ASRI measures teenagers' self-regulatory success or failure through five components (monitoring, activating, adapting, preserving and inhibiting, four domains (emotional, behavioral, attentional, and cognitive), -and in two temporal contexts which is long and short-term self-regulation (Moilanen, 2007, s. 837). The ASRI is a theoretically-based questionnaire that taps two temporal aspects of self-regulation (regulation in the short- and longterm). The long-term and short-term factors have been shown to have satisfactory internal consistency in previous research (Moilanen, 2007, s. 835).

The original ASRI consists of 36 statement items. At the time of this project, Moilanen had developed a shorter 30-item version (validated in unpublished work) and this version was used in the present project. This short version was used to reduce the number of questions and subsequent fatigue in the participants. The informants are responding to which extent the statement is true to themselves, such as item 18: "If there are other things going on around me, I find it hard to keep my attention focused on whatever I'm doing", item 4: "I can find ways to make myself study even when my friends want to go out", item 22: "I can calm

myself down when I'm excited or all wound up" (Moilanen, 2007, s. 846). It is measured with a five-point likert scale ranging from (1) *not at all true for me* to (5) *really true for me*. The measure was translated to Norwegian by this thesis' supervisor and myself and back-translated to English by a professional translating office (SEMANTIX). The translation was approved by Moilanen. The complete questionnaire can be made available upon request.

4.6.3 Academic achievement

In order to measure academic performance, students' grade point average (GPA) from fall semester 2021 was collected. This measures how a student has performed in all subjects during that semester. This average grade was the last and "freshest" grade so that the received responses on the survey in March 2022 would be measured as close as possible to the students' academic performance. To state average point in the survey was made into a "type in" function and was based on trust.

4.6.4 Demographics

Questions regarding demographics covered age, grade level, and gender. In terms of age, it was stated to submit date of birth with the purpose of getting precise information on participants' age. This made it possible to see differences between those who were born early and those who were born late that year. This was made as a type in question in the survey (DD.MM.YYYY Grade level was asked to obtain a better overview so that it was easy to see how many students there were in each grade. The alternatives 8th, 9th and 10th grade were coded with the same numbers (8, 9, and 10). Gender was used as a control variable because research has indicated that gender may play a role in social media addiction (Andreassen et al., 2017) and academic achievement (NOU 2019:3). It is normal for research to study connections between a phenomenon and gender in order to see if a possible connection has any significant meaning (Korsvik & Rustad, 2018, s. 10). The question of gender came with alternatives: girl, boy, other and "wishes not to answer". This was done to take into consideration participants who either feel like a girl or a boy or who did not want to answer due to personal reasons. Gender was coded with boy (0), girl (1), other (2) and missing (-999) for "wishes not to answer".

4.7 Generalization

4.7.1 Validity

In order to strengthen this thesis´s validity, strategic choices were made. Firstly, I needed to make the study measurable, which is work referred to as operationalization (Høgheim, 2020, s. 101). This thesis´ issue is to see if there are any connections between the following variables. In terms of measuring social media addiction I used an existing scale that gave me an advantage in terms of validity. The BSMAS has been translated into several languages and has been validated in Italian (Monacis et al., 2017), Iranian (Lin et al., 2017), Hungurian (Bányai et al., 2017), Chinese (Luo et al., 2021) and Greek (Dadiotis et al., 2021). The precursor of the BSMAS, the BFAS, has shown good psychometric properties (Andreassen et al., 2017, s. 289) and the developer of both measures, Andreassen, is Norwegian and has been using it in a study in Norway (Andreassen et al., 2017). The ASRI short questionnaire has not been that frequently used yet, but the author of the scale (Moilanen, 2007) has done a careful consideration of validity of the measure. She claims that her results "…supports the notion that the ASRI has sufficient construct validity" (Moilanen, 2007, s. 845). In terms of measuring demographics (age and gender), academic achievement, and time spend on social media, these are relatively obvious items which opens up for good reasons to treat them as valid. However, the whole survey was based on trust, meaning that it was possible that participants did not provide "true" answers or provided answers that can be considered as "socially desirable", which still opens for potential biases in the data collection. However, it is difficult to know if the participants have answered truthfully. This is something inherently typical of surveys or questionnaires and may impair validity in all studies using this method.

4.7.2 Reliability

Reliability addresses the data collections' reliability and credibility. It is about accuracy in the data collection (Høgheim, 2020, s. 183). One of the limitations of this study´s method is that all items in the survey were based on trust which may impair the results. It is however impossible to quality assure the items in the two scales because they offer the participants to choose alternatives from their own, personal perspectives. In terms of measuring academic achievement and time spend on social media, reassurements could have been made. I could have asked the schools for the students' average point grade in advance. This would however acquire much more effort and result in less anonymity as I would have to match the grades to every student. More importantly, I would have to ask for the students' permission which

could have resulted in even fewer participants because I would be asking for "too much". I believe that some students would experience this as too invasive and would withdraw from the project. By making the GPA-item not obligatory it was up to the students to decide whether they wanted to answer or not which made the question less invasive.

The "time spend on social media"-item could also open for more accurate answers as this question also relies on the participants' own opinions. Researchers have criticized studies for using self-report survey questions to measure this because they are challenging to answer accurately and susceptible to various biases (Ernala et al., 2020, s. 1). This was thought of in the process of formulating this survey question. The students could be asked to use their screen-time function on their smartphones to find out how much time each of them was spending on social media. This would be possible, but it would require that the students would know how to find this number. I tried to insert such "recipe" in the survey but it required a lot of explanations and text that filled up space which could result in students viewing the survey longer and more complicated. The survey was thought to be as brief and precise as possible with the purpose of participants not dosing off which was why I decided not to insert it.

Nevertheless, the reliability of the two main measures used in this study has been tested in previous research and considered satisfactory for both the BSMAS (Andreassen et al., 2017, s. 289) and the ASRI (Moilanen, 2007, s. 845), which strengthens the assumption that these measures are reliable. Internal consistency of the BSMAS has been shown to be high in a large Norwegian sample ($\alpha = 0.88$) (Andreassen et al., 2017, s. 289). The ASRI has also shown good reliability in other languages than the original English measure: the measure was adapted to Portuguese adolescents demonstrating good reliability (Cronbach's $\alpha = .78$) (Dias et al., 2014, s. 157). Reliability of the instruments was also tested statistically in this thesis (see 5.2 Reliability).

4.8 Analytic strategy

To analyze the data, IBM SPSS statistics version 26 was used. Reliability in the form of internal consistency was investigated by calculating the Cronbach`s Alpha values for each measure. Descriptive analyses were used to calculate minimum and maximum values, means, standard deviations, skewness, and kurtoses. Furthermore, Pearson's correlations were calculated to estimate the correlation between the variables. Lastly, two multiple linear regression models were used to test the two hypotheses for this thesis. In the first regression

model (RQ1), the dependent variable (grade point average) was regressed on the independent variables (social media addiction and hours on social media) to investigate whether social media addiction predicted grade point average. In the second regression model (RQ2), the dependent variable social media addiction was regressed on the independent variable self-regulation to investigate the role of self-regulation in students' social media addiction. Students' age and gender were controlled for in both models.

5.0 Results

5.1 Missing data

The datafile was inspected for missing data. It is normal that missing data appears. This thesis's survey had none-obligatory questions which offers expectations of missing data. In SPSS, missing data were re-coded with -999, a number that was not naturally occurring data value (Field, 2018, s. 154-156). Rates of missing data were generally low, but there were a few variables that had a slightly higher percentage. Age was one of the variables that had a higher rate of missing with 12%. There was 8.6% missing data in the academic achievement variable. In the questions on the BSMAS scale dealing with social media addiction, missing ranged from 0% to 2.9%. In the ASRI questionnaire dealing with self-regulation missing ranged from 0.7% to 10.8%. There were two questions in the ASRI questionnaire that had a higher missing percentage compared to the rest of the questions. These were question number (1) *I lose items if I don't put them away immediately after using them* with 10.8% missing and question number (26) *I keep trying the same approach, even when it doesn't work (I get stuck)* with 9.4% missing. For the remaining self-regulation questions rates of missing data ranged from 0.7% to 5.8%. Little´s MCAR test was used to assess if the data was missing completely at random (MCAR). The null hypothesis for this test is that the data is MCAR and so a p-value of $< .05$ is interpreted as being that the missing data is not MCAR. Little´s MCAR test was not significant ($p = .058$) indicating that it fails to reject the null hypothesis which is consistent with the assumption that data are completely missing at random and that no patterns are prevalent in the missing data. This assumption allows for management of missing data through the expectation-maximization (EM) algorithm (Graham, 2009, s. 569). Missing values were therefore replaced with EM imputed values to reduce loss of sample size and associated power. EM also reduces the potential bias that comes with listwise deletion which

is the default option in SPSS. It is also better than mean imputation because EM preserves the relationship with other variables, which is important for linear regression.

5.2 Reliability

To assess whether the instruments used to measure social media addiction (BSMAS) and self-regulation (ASRI) showed internal consistency, Cronbach's alpha was calculated across the items of each measure. Cronbach's alpha for social media addiction was acceptable (α = .767) and for the self-regulation measure a high internal consistency was found (α = .905). This indicates that the items have shared covariance and likely measure the same underlying concept.

5.3 Descriptive Statistics

5.3.1 Table 1

Descriptive Statistics

	Min	Max	Mean	SD	Skewness	Kurtosis
Age	13.23	16.70	14.82	0.89	0.007	-1.272
Gender	0	1	0.57	0.49	-0.283	-1.948
GPA	2.7	6.0	4.33	0.62	-0.312	0.040
Hours on Social Media	<1	>6	3.67	1.48	0.339	-0.598
Social media addiction	6.00	26.50	14.66	4.93	0.262	-0.548
Self-regulation	50.00	142.00	99.41	17.49	0.046	0.068

Table 1 shows the ranges, means, standard deviations, skew and kurtosis of the assessed variables. The average age for this sample was 14.82 years old. The sample consisted of 57% girls and 43% boys. The average point grade was 4.33. Hours on social media shows that the minimum time spend on social media was under an hour whereas the maximum time was over six hours. The averages was 3.67 hours. To determine social media addiction this was measured with the BSMAS. It was possible to score between 6 and 30 on this scale. In this sample, the minimum score was six and the maximum score was 26.50. The average score was 14.66 with a standard deviation of 4.93. If the monothetic scoring scheme (i.e., scoring 3 or above on all six items) (Andreassen et al., 2012, s. 512) had been used, 21,6% of the students in this sample would have been classified as addicted.

For self-regulation, it was possible to have a maximum score of 150 on the ASRI scale which is referred to as high level of self-regulation whereas the minimum score was 30 which shows a low level of self-regulation. In this sample the minimum score was 50 and the maximum score was 142, an average score of 99.41. The standard deviation was 17.49 which means that there were several adolescents that showed a high level of self-regulation but also adolescents with low self-regulation. Table 1 also shows skewness and kurtosis. Skewness shows the symmetry in the sample. Symmetrical distributions have a skew of 0. This sample´s skewness is ranging from -0.312 to 0.339 which shows small and acceptable skewness (Field, 2018, s. 24). Kurtosis refers to the degree to which scores cluster at the ends of the distribution. In a normal distribution the kurtosis value is also 0. In this sample, the kurtosis is ranging from -1.948 to 0.068, a small range which is also acceptable (Field, 2018, s. 24).

5.4 Correlations

5.4.1 Table 2

Bivariate Correlations Between Variables

	1.	2.	3.	4.	5.	6.
1. Age	-					
2. Gender	-0.111	-				
3. GPA	-0.130	0.251**	-			
4. Hours on social media	-0.058	0.254**	-0.067	-		
5. Social Media Addiction	0.078	0.465***	-0.097	0.470***	-	
6. Self-regulation	0.004	-0.166	0.440***	-0.229**	-0.424***	-

Note: ** p< 0.01. *** p<0.001.

Table 2 shows the correlation between the variables which can also be referred to as the association between them. The results show several correlations to be significant at the $p <$ .01 and $p <$ .001 level. This means that the connection is clear, that the connection cannot be due to coincidence and that if the study would be redone, the results would probably remain the same (Kleven & Hjardemaal, 2018, s. 80-81).

In this sample, the adolescents' gender and average point grade is significantly correlated which means that being a girl has something to say when it comes to academic achievement. In fact, this result shows that the girls have a better average point grade than the boys. There was a positive correlation between hours spent on social media and gender. This means that being a girl is related to spending more time on social media. Adolescents' hours on social media had a non-significant correlation with adolescents' academic achievement. Social media addiction was significantly and positively correlated with gender and hours spend on social media. This means that a higher level of social media addiction is associated with being a girl and spending a higher amount of time on social media. Social media addiction did not correlate significantly with GPA. Self-regulation had a significant positive correlation with GPA and a significant negative correlation with hours spend on social media and social media addiction. This means that adolescents with higher level of self-regulation also have a higher grade point average. A negative correlation between self-regulation, hours spend on social media, and social media addiction means that adolescents with higher levels of self-regulation spend less time on social media and also show lower levels of social media addiction.

5.5 Regression

5.5.1 Table 3

Social Media Addiction Predicting Students' Grade Point Average.

Variable	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	SE	Beta (β)		
Constant	5.346	0.860		6.213	0.000
Age	-0.051	0.057	-0.073	-0.883	0.379
Gender	0.458	0.116	0.366	3.933	0.000
Social media addiction	-0.030	0.013	-0.237	-2.316	0.022

| Hours on social media | -0.022 | 0.039 | -0.053 | -0.573 | 0.567 |

Note: Constant = 5.346, F(4,132) = 4.846, *p*<0.001, R^2 = 0.128

Next, it was investigated whether social media addiction and hours on social media predicted students' GPA while controlling for age and gender. Table 3 shows the results from the multiple linear regression analysis with GPA as the dependent variable and age, gender, social media addiction and hours spent on social media as independent variables. It was expected that social media addiction and hours on social media predicted students' grade point average. This hypothesis was partly supported as social media addiction significantly predicted GPA. However, hours on social media did not predict GPA. The standardized coefficient for social media addiction indicates that a one unit increase on this variable is associated with a .237 SD decrease in GPA. This means that this variable affects students' GPA negatively. This, higher levels of social media addiction affects students' academic achievement but the time they spend on social media did not predict any variance over and above level of addiction. The R^2 of .128 indicates that the variables in the model explained 12.8% of the variance in GPA.

5.5.2 Table 4

Self-regulation Predicting Students' Social Media Addiction.

Variable	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	SE	Beta (β)		
Constant	11.965	6.153		1.945	0.054
Age	0.693	0.385	0.126	1.802	0.074
Gender	4.172	0.020	0.420	5.913	0.000
Self-regulation	-0.100	0.020	-0.355	-5.024	0.000

Note: Constant=11.965, F(3,133) = 24.463, *p*<0.001, R^2 = 0.356

Finally, the role of self-regulation for social media addiction while controlling for age and gender was investigated. Table 4 shows the results from a multiple linear regression analysis with social media addiction as the dependent variable and with age, gender and self-regulation as independent variables. It was expected that self-regulation predicted students' level of social media addiction. The results support this hypothesis: Self-regulation had a negative effect on social media addiction meaning that low self-regulation affects students' level of

social media addiction negatively. That is, a lower level of self-regulation is associated with a higher level of social media addiction. The standardized coefficient for self-regulation indicates that a one unit increase on this variable is associated with a .355 SD decrease in social media addiction. The R^2 at .356 means that 35.6 % of the variance in social media addiction is explained by the variables in the model.

6.0 Discussion

The purpose of this study was to investigate connections between adolescents excessive use of social media, self-regulation and academic achievement. It was expected that students who are at risk of social media addiction have a lower average point grade than those who are not at risk of social media addiction and that self-regulation was negatively related to students social media use. These expectations were confirmed in the results and will be further discussed in this section. Practical implications within the frames of the school as a learning-arena will also be suggested and discussed in this section.

6.1 Social media use and academic achievement

6.1.1 Social media addiction

One of this thesis´ predictions was that social media addiction would predict students' grade point average. This was confirmed in a linear regression analysis with a significant regression coefficient of $\beta = -.237$ and a p-value of $p = .022$. This is in line with earlier research which has also found this connection (Akbay, 2019; Hou et al., 2019; van den Eijnden et al., 2018). This finding is important for research regarding adolescents and education because it is indicating a possible negative result of social media use, a medium most adolescents use every day. Additionally, it is unknown how this will develop. Social media will likely not by any means disappear, the amount of it will probably rather increase. A suggested solution for adolescents gaining a problematic relationship with social media will not be to stop them from using it. On the contrary, they should be thought to use it with a positive approach and a critical sight. Excessive use of social media can function as a distraction which can affect students' focus and memory in terms of learning (Hou et al., 2019, s. 9-10). That is a reason for why the relationship to social media use should be integrated in schools curriculum.

The correlational analysis showed that social media addiction showed a significant connection with gender, meaning that the girls were on average more addicted to social media compared to the boys in this sample. This is in line with Andreassen et al.´s results where scores on addictive use of social media were higher among women compared to men: ($F_{1,23530} = 833.51$, $p < 0.001$, $\eta 2 = 0.03$) (Andreassen et al., 2017, s. 290). Bányai et al.`s (2017) results showed that members who were at the risk-group of problematic use were likely to be female (s. 7) and Dadiotis et al´s (2021) study who found women being more likely to be addicted to social networking sites (s. 5).

It should be noted that, somewhat surprisingly, social media addiction did not show a significant correlation with academic achievement in the correlational analysis, but that it did predict academic achievement in the regression analysis where age, gender, and hours on social media were included. This may be a sign of a so-called suppressor effect where the addition of a predictor increases the predictive power of another variable. Although, the investigation of suppressor effects is outside the scope of this, it was preliminary checked wheter gender could play a role. This showed that when the correlational analysis was performed on boys and girls separately, the correlations between social media addiction and academic achievement were in line with the regression results: $r = -.277$, $p = .034$ for boys and $r = .039$ for girls. Further analysis would be needed to investigate this in more detail.

6.1.2 Hours on social media

In terms of being addicted to social media, time spent on social media can be an interesting factor in the investigation of identifying people who are at risk of social media addiction. In this thesis, it was predicted that the number of hours that adolescents spend on social media would predict their academic achievement. This hypothesis was not confirmed. The present study did find a significant correlation with social media addiction: The more time spend on social media the higher the level of social media addiction. However, when controlling for the other variables in the regression model, hours spend on social media did not predict academic achievement in the regression model. This is contrary to Hou et al. (2019) who did an intervention study investigating college students' academic performance before and after reducing their time spent on social media. The intervention was successful and they found the students' academic performance to improve when reducing the amount of time on social media. A possible reason for these results was that the students had more time left to study outside of class.

Hours spend on social media showed a significant connection with gender, meaning that the girls spend more time on social media compared to the boys in this sample. A national survey showed that adolescents spend 3.7 hours on social media on average per day (Gullaksen & Finnevolden, 2020, s. 17). In this sample, the average hours spend on social

media were 3.67 hours which agrees with this research. For some people, like older people from an older generation, this may sound a lot. For younger people, such as adolescents, this may sound totally normal. It may be scary to think that this may be the new normal, but adolescents have grown up with social media, it is their way to communicate whereas older people may not accept the fact that the community is leading towards digital communication.

Although a lot of time spend on social media may be worrying to some, time spend on social media did not predict grade point average when controlling for social media addiction in this study. This means that it is likely not the number of hours per se that has a negative effect on students' academic achievement, but it seems the level of social media addiction that is driving the effect.

6.2 Social media addiction and self-regulation

6.2.1 The concept of social media addiciton

Firstly, it can be relevant to discuss the concept of social media addiction from the perspective of Griffiths (2005) six components of addiction and how this can be connected to students' self-regulation based on social cognitive theory (Bandura, 1991). Griffiths (2019) himself expresses that excessive use of social media does not necessarily lead to negative consequences and all possible addictive's should be considered in conjunction with a person´s context (s. 181). A person can therefore be constantly on social media without having symptoms of addiction. In the context of Griffiths (2005) six components this would be to use social media without it going beyond salience, mood-modification, tolerance, withdrawal, conflict, and relapse (s. 192-193). This will be utterly discussed by using Instagram as a part of a social media activity as an example. It can be seen as normal to carefully plan an Instagram post before posting it. Is it Instagram-worthy? What will the caption be? Will I receive enough likes and will it fit in to my Instagram-feed? Some are more concerned about this than others, but how does it make them addicted? According to Griffiths (2005), this will be when it is dominating a person's mind *(salience)* (s. 193). Does using social media lead to mood-change *(mood-modification)*? (s. 193-194). As for the Instagram-post example this could lead to both good and bad mood. Good mood if the person is satisfied with everything regarding the post, including receiving enough likes in a short time. Bad mood if the person´s not experiencing the post to be perfect or not receiving enough likes. In the extent to define this as addictive or not would probably depend on the level of the mood a person expresses. If the person experiences the Instagram-post to be perfect whom would probably feel good, like

receiving an reward. In order to accomplish that same feeling the person would have to post a new Instagram-post which could contributes to increase the usage, especially if this post hits more likes than the previous post. The increase of likes in each post can lead to a person urging for more likes which will increase the usage. In this case, the person will post excessively in order to receive that same rewarding feeling as before *(tolerance)*(s. 194). A person that is not addictive would probably not experience that same urging feeling as if someone were addicted. Parents can withdraw children´s phone at night for example to make sure that the child receive the optimal sleep. Many adolescents would probably see this as annoying and some would even have a strong reaction. However, this can not be defined as addictive behavior. According to the components model, an addictive person would experience abstinences from this *(withdrawal)* (s. 194). Posting excessively on Instagram and being overly obsessed with it does not necessarily mean that it is addictive. However, when this activity goes beyond family and friends, there is a reason to be concerned. For some adolescents, it can feel impossible to stop the activity *(conflict)* (s. 195). By sticking to the Instagram example a person can be addicted to all the feedback and likes that are received by posting a picture on Instagram. It gets beyond a person´s control and the person keeps proceeding with the activity even if he or she has realized that the usage has become destructive *(relapse)* (s. 195). On the other hand, even if a person experiences all these symptoms, the person can still function in the everyday life. Therefore, the context needs to be considered in order to identify a person as addictive (Griffiths, 2019, s. 181).

6.2.2 The role of self-regulation within a social media addiction perspective

This thesis had expectations that self-regulation would predict students' social media addiction. This prediction was based on theory regarding the development of self-regulation (Bandura, 1991), thereby media addiction to be a sign of deficient self-regulation (LaRose et al., 2003, s. 243). The results of the present study confirmed that self-regulation was a significant predictor of social media addiction. The standardazied beta was $\beta = -0.355$ with a significant p-value of $p < .001$. Higher level of self-regulation predicted lower levels of social media addiction in this thesis' sample. Similar results were found in other studies (Khan et al., 2021; LaRose et al., 2003; Yang et al., 2019).

As mentioned, Bandura (1999) claims that being addicted to something shows the failure of the self-regulation mechanisms (in LaRose, 2001, s. 398). In this perspective, improving students' self-regulation would reduce problematic use of social media. Furthermore, Bandura claims that self-efficacy plays a role in developing self-regulation and

that this process operates through three principal subfunctions: self-observation, judgemental process, and self-response (Bandura, 1991, s. 248-257). This has a strong connection with the motivation to use social media and the outcome of using it. Problematic users of social media are aware that their usage is excessive and destructive, but they suspend their comparisons to desirable standards of conduct (Larose et al., 2001, s. 399). In order to stop oneself from turning addicted the person could practice those functions and reflect upon why one is on social media at that particular moment and how it makes oneself feel. An essential point in this perspective is that a person who is addicted to social media can in fact be "cured" through self-regulation. However, the people in this sample are in fact children - adolescents. Cognitive functioning is not yet fully developed and significant others need to help them develop and apply their self-regulatory functions. Students may benefit from teachers exploiting their knowledge in order to help students develop self-regulation.

In terms of measuring students' level of self-regulation, the ASRI short version scale was used and treated continuously (Moilanen, 2007). With this scale, one cannot assess how low or high a student scores on self-regulation, because the assessment is not norm-referenced. This means that individual scores cannot be reliably compared and we cannot determine whether one score is "better" or "worse" than another. However, the scores can be used to investigate the relation with social media addiction. In addition, the score frequency could be inspected and showed that there were several adolescents that had scored at a higher level of self-regulation rather than lower level of self-regulation. This supports the results of self-regulation predicting social media addiction because there were also a larger group of participants that were not classified as addicted to social media rather than addicted. A lower level of self-regulation was associated with a higher level of social media addiction which supports La Rose et al.´s (2003) perspective of media addictions being a sign of deficient self-regulation within the framework of Bandura´s (1991) theory of self-regulation (s. 243).

This perspective offers self-regulation to play an important role for those who suffer from social media addiction because it emphasizes that it is likely possible to be "cured" with help from self-regulation strategies. Moilanen claims that teenagers as well as adults should be able to regulate "… their thoughts, feelings, attention, and behavior in a planful, goal-oriented way" (Moilanen, 2007, s. 836). To self-regulate is also a value in the Norwegian curriculum, especially when it comes "to learn to learn" and social learning (Utdanningsdirektoratet, 2020b). The fact that self-regulation is integrated in the curriculum shows that teachers should play a role in developing students' self-regulation in order to

prevent unhealthy use of social media. "To learn to learn" is about teaching students to reflect upon own learning, comprehending own learning-processes and acquire knowledge independently (Utdanningsdirektoratet, 2020b, s. 12). Social learning is also an important part of the school training as this occurs through expericing and practicing in community with others (Utdanningsdirektoratet, 2020c, s. 1). Within this social learning, the students will develop social abilities, such as self-regulation. It is about letting students be aqquainted with understanding own and others emotions. Teachers should contribute to students being more aweare of own actions by putting words to emotion, reflect around situations that occours, and provide contructive feedback on obsereved reactions (Utdanningsdirektoratet, 2020c, s. 3-6).

Although not the focus of this study, the correlational analysis also showed that self-regulation had a positive significant correlation with students' grade point average which means that a higher level of self-regulation is associated with a higher grade point average. This finding supports other research done on self-regulation and academic achievement on students. According to research, it seems like high levels of self-regulation are associated with a high level of academic performance (Moilanen, 2007, s. 837). Most parents wish for their children to be creative, flexible and to have a high level of endurance. These are abilities that are closely connected to the EFs and are important to consider when working with children (Kraft, 2014, s. 66). One study in 140 students in eighth grade found that the students' ability to self-regulate, thereby self-discipline, predicted their final grades, among other variables. The researchers found that the effect of self-regulation on final grades were even more important than IQ measurements (Duckworth & Seligman, 2005, s. 939). According to this study, improving self-discipline by making choices that require sacrificing short-term pleasure for long-term gain will increase students' academic performance (Duckworth & Seligman, 2005, s. 944). A study conducted in Norway studied the connection between self-regulation and academic achievement in children and early childhood. The study showed that there were bidirectional relations, especially between self-regulation and mathematics (ten Braak et al., 2019). To calculate is considered one of the primary competencies in the Norwegian curriculum and mathematics is referred to as one of the main subjects in the Norwegian school system (Utdanningsdirektoratet, 2020b, s. 11). To master mathematics requires the charactaristics of the three EFs and the study showed that children´s self-regulation in kindergarten positively predicted first-grade math scores (ten Braak et al., 2019, s. 5). Even if this was not the focus of the study, it acknowledges the connection between self-regulation, social media addiction and academic achievement. Social media addiction can

function as a mediator between self-regulation and academic achievement. That is, adolescents who have lower self-regulation could use social media problematicly which again affects their academic achievement negatively. It also highlights the importance of teachers learning students to develop self-regulation in school.

6.3 The scope of social media addiction

The scope of social media addiction among all adolescents is a complicated issue because it involves much more angles of approach. As this thesis has touched on, researchers can't really agree on social media addiction as a term. It has not yet become a certified diagnose (Griffiths, 2019, s. 181), and some scholars believe that it is too serious and destructive to call it an addiction (Aalen & Iversen, 2021, s. 111), and others have suggested social media addiction as another term for lacking central, prerequisite human-features (LaRose et al., 2003, s. 243). As important this discussion may be, the scope of social media addiction has to be discussed within the frames of this thesis.

Adolescents' social media addiction in this current study was measured with the BSMAS. In this thesis' analyses, the scores on the BSMAS have been treated continuously so that it is possible to interpret the participants' level of addiction or problematic use. However, using the monothetic scoring scheme, which is referred to participants scoring 3 (*sometimes)* or above on all six items in order to be classified as addicted to social media (Andreassen et al., 2012, s. 512), in this current sample, 21,6% of the adolescents scored 3 or above on all six items and could be classified as addicted. Bànyai et al. found in their study that 4,5% could be classified as being in a risk-group (s. 9) whereas Hou et al. (2019) found 14,7% to be classified as having social media addiction (s. 4). This current study has a relatively higher number compared to those two studies.

It is difficult to compare results directly because there were slight differences in howsocial media addiciton was measured. Bányai et al. (2017) used of 19 points which they suggested as the most ideal threshold to classify as at-risk of problematic social media use (s. 8). This study treated the scores continuously, but if we were to treat it as a cut-off point it would be on 18 points which is quite similar to Bányai et al.´s study. Hou et al.´s (2019) study discussed their results against both the polythetic scoring scheme and the monothetic scoring scheme and mentioned that those who scored over 18 points could be classified as addicted to social media (s. 4). Another reason for the difference in results could be explained in terms of

different samples and years the studies have been conducted. In Bànyai et al. (2017) the sample age ranged from 15 to 22 years with a mean age of 16,62 years (s. 4) and in Hou et al. (2019) the sample age range was not stated, but the mean age was 19,18 years (s. 4). Firstly, these two samples are much larger than this thesis´ sample which can explain the reason why this study's average number is relatively higher compared to the others. A larger sample may be closer to the true population sample. Additionaly, it is a convience sample and the reason for why this study´s sample scored relatively higher on social media addiciton could be because of things specific to the sample. Such as the students in the two schools that were studied in this sample could have had a culture of using social media frequently. The other studies also have a larger age range and their mean age is higher than this thesis´s mean age which could indicate that there is more problematic use of social media amongst early teenagers compared to older teenagers. This is however an interpretation that should be investigated in further research.

Many children, teenagers, and young adults may use social media excessively, but whether this is problematic can depend on maturity. Research tells us that children between 9 and 12 years old also use social media actively (Medietilsynet, 2020, s. 20). However, this group of children may be less at risk of social media addiction than older children because they are more supervised by their parents and they have a more positive approach to social media. That is, at that age, they may care less about comparing each other's friend and follower lists and more about being entertained. When the children turn teenagers and are attending lower secondary school, interactions may be more important. At that age, many teenagers may get insecure and the value of being included in a large friend group gets important. Many of them could have a tendency of comparing themselves to each other, therefore it is important to consider how they present themselves on social media. These things may still be very important when teenagers get older and attend high school. However, the value of interactions may develop. From obsessing over how one´s own and others' Instagram-profile is, staying in established relations may get more important. At that age, one may mature a lot in terms of being on a pathway of getting to know and finding oneself and others people's opinion may mean less. Moreover, the scope of social media addiction may be more prevalent among younger people compared to older people. Findings from a large, national survey support this assumption (Andreassen et al., 2017, s. 290). More specifically, social media addiction may be more prevalent among adolescents in lower secondary school because a lot of mental and physical strains occur which could make the adolescents use social media in a negative approach. For example, they use it as a distraction to escape from

the real world or to seek information about others in order to compare themselves with each other (Aalen & Iversen, 2021, s. 113).

Additionally, research shows that social media addiction is more prevalent among girls (Andreassen et al., 2017, s. 291; Bányai et al., 2017, s. 7), which also corresponds with this thesis´s results. In this study´s sample, being a girl was significantly correlated with social media addiction. As of why social media addiction is more prevalent in girls may be because girls tend to be more involved in activities regarding social interaction such as with social media, whereas boys are more involved in asocial and/or solitary activities such as gaming (Andreassen et al., 2017, s. 291).

6.6 Practical implications

The present findings contribute to the notion that there is a connection between social media use, academic achievement, and self-regulation. It also opens up to suggestions regarding a solution to this issue. Researchers have suggested that teachers who have adolescents who are at risk of problematic social media in their class should use should utilize school-based prevention and intervention programs as well as teaching effective and efficient learning methods that can be effective on reducing unhealthy usage (Akbay, 2019, s. 564; Bányai et al., 2017, s. 10).

Researchers suggest the school should be involved. Hou et al. (2019) held an intervention that reduced students' social media addiction (s. 10). This could be a possible practical implementation organized by schools to increase adolescents awareness of their own usage. An intervention like that could make the students see for themselves how their usage affects them and hopefully realize the perks of not being "on" large parts of the day. Such as improved learning engagement and improved mental health which was some of the positive outcomes from the intervention in Hou et al.´study (Hou et al., 2019, s. 10). In addition, this could open up for a valuable reflection conversation with a whole class together with the teacher where the motivation for being "on" can be discussed. Akbay (2019) concluded and suggested that there should be developed programs for healthy usage as well as teaching effective and efficient learning methods in schools to reduce unhealthy social media usage among adolescents. It was also suggested to keep the parents involved in the process (s. 6). Such programs could even be a part of the curriculum which could repeat itself throughout the school year and different issues could be brought up each time. Such lectures could include

topics like the negative and positive outcomes of social media, the companies behind social media, different users of social media, self-presentation in social media and so on.

As self-regulation is an important value in the Norwegian curriculum (Utdanningsdirektoratet, 2020c, s. 3), it could also be a great opportunity to address social media use in lessons where the aim is to develop students' self-regulation. In such cases, the focus can be on self-regulatory abilities such as the ability to control attention and to consider the consequences of own actions (Moilanen, 2007, s. 835). One of the features of social media platforms is that they are "addicting" in terms that it can be difficult to stop using (Aalen & Iversen, 2021, s. 109). Such as on TikTok or Instagram, it can be difficult to stop scrolling. People could think that they have scrolled for ten minutes when it shows that they have scrolled for 40 minutes. This can be related to self-regulatory abilities, thereby the ability to flexibly activate attention. In class, the teacher could address this issue and have a conversation with the students about experiences and strategies they have on "stopping the activity". Such conversations could contribute to students recognizing themselves in such situations and being aware that it is good self-control to be able to stop the activity. Being on social media could also offer unfortunate outcomes such as preserving ugly comments and having unfortunate pictures being spread. These are common issues for online communication because people have higher tendencies of bullying online because they can not see the victims' faces (Aalen & Iversen, 2021, s. 128). Such issues are important to address and they could be addressed through the ability to adapt own behavior based on environmental stimuli. In common growth, adolescents have been taught to be good people such as following rules and being kind to each other. Most people have been growing up in environments with such beliefs which means that there are somewhat expectations of how one should act, such as not bullying others online. Students need to be aware of these expectations and be taught that their actions have consequences. Teachers could therefore address negative behavior online as well as the consequences of this could result. This could contribute to students being aware of the severity of online bullying and considering their own behavior online.

Involving parents could be valuable action for preventing adolescents developing a problematic relationship to social media because they could contribute to setting boundaries. Possible boundaries would be to limit children's screen time, such as removing their phone at night and for specific hours throughout the day. This would probably make a positive change due to focus and concentration at school as individuals who struggle with social media

addiction tend to suffer from insomnia (Hou et al., 2019, s. 2). Another practical implication can be to use the BSMAS as a tool in school to identify those who are at risk of social media addiction in order to create programs for those who belong to this specific group (Bányai et al., 2017, s. 10). This would probably be highly effective for that particular group. However, by including all students in those programs, it could function as a preventive action. Furthermore, such programs and lectures about social media should be manufactured from both positive and negative perspectives because it might also be beneficial for "grownups" to remember that social media is a part of the adolescent life and that no one is in a position to overrun it.

6.7 Limitations and strengths

Every study, including this thesis, has certain strengths, but also limitations. One limitation is the difficulty I encountered with collecting data which resulted in a somewhat smaller sample size than I anticipated. To conduct a survey in schools in the middle of a Covid-19 pandemic offers some challenges. It is known that many teachers feel overworked, they have needed to catch up on whatever they have missed through this time with a lot of student and teacher absence. This has affected this study when it came to recruiting informants and implementing the survey. It was challenging to recruit informants because many schools declined the request saying that they could not find time to participate. It was planned to implement the survey earlier in the year, but because of the situation around the pandemic, it was a bit delayed. It was challenging to make contact with the schools when many of them did not answer and made the request on hold.

Another challenge was that several students did not deliver the consent within the due time because many of them had forgotten. This was however expected which was the reason why I asked the school management to remind them through the students' week schedule. Some of the teachers did this, but the majority did not. This may have an effect due to the fact that students' contact with the teacher probably has a larger influence on them than I have. I experienced some teachers to be somewhat uninterested in this project – as if it was a disturbance. This is highly understandable concerning that some teachers were under pressure of reaching everything at this time of the pandemic. On the one hand, I believe that it would have been a larger data collection if the teachers showed a bit more engagement. On the other hand, possibly, the "information-meeting" could have been made even more interesting for the students and teachers. I was very thankful for the participants that I got and I did not want

to bother the teachers with extra work. Possibly I would have received a higher respond-rate if I used more time to introduce the project for the students, such as with a PowerPoint. I could have been too concerned that I took up time and space of the schools management, teachers, and students and that it was going beyond my project. I have later realized that I could have been more confident when it came to taking up time for presenting and making my project visible and important. Nevertheless, it is always a matter of finding a balance between providing sufficient information to engage people to participate but at the same time not overwhelming participants with too much information. At one point, I needed to accept the number of participants and move on in the process.

Despite these challenges, the number of participants was still substantial (N = 139) and a power analysis indicates that a multiple regression analysis with an anticipated effect size of .15, desired statistical power level of 0.8, four predictors, and a probability level of .05 would need a minimum sample size of 84. Thus, although the sample size was reduced by practical issues, it is sufficient for the type of analysis conducted in this thesis. That said, a larger sample size may be more likely to be representative of the total population and would be needed to conduct more advanced and complex statistical analyses.

Another issue related to the fact that this thesis uses a convenience sample is that there may be something specific with the participants that did decide to participate. Students who were given permission from their parents to participate could have been more intrested and motivated compared to those who forgot to inform their parents. Students enthusiasm for this project may have an affect on parents deciding to give consent or not. The parents' background could also play a role in terms of giving consent to participate on behalf of their children. Parents' beliefs about their children participating in research may be affected by their own education. Parents with high educational background may be aquainted with the importance of research as they probably would have dealt with research in their own education. Students and parents with a higher level of self-regulation may have been caught up by the term and the meaning of it when reading the informationletter. They may have the ability to think of this project as beneficial for themselves in the future as they know that research is important and they may have enough self-regulation to fill in the consent and remember to re-submit it. They would also not be frightened to have their self-regulation "tested" in research because they know they have good self-regulatory abilities.

The strengths of this study should also be pointed out. First, I have designed the study, created the digital survey, recruited the participants, and collected the data myself which made me

learn a lot about research methods. This is knowledge I see as valuable and that I will benefit from further in my career. Second, to my knowledge, few, if any, studies have investigated the relations between social media addiction, academic achievement, and self-regulation in a sample of adolescents of this age. Several studies have investigated social media addiction in the light of self-regulation and academic achievement in adolescents in different ages separately, but have not looked at these variables together in one sample. Moreover, this study fills a gap especially in Norwegian research as the connection between these variables does not seem to be studied in a Norwegian sample. Andreassen et al.´s (2017) study is the largest study regarding social media addiction in Norwegians, but the minimum age in that study was 16 years old. This means that there is a gap in research on Norwegian students in lower secondary school and social media addiction. This study contributes to filling this gap and revealing the important issue that a higher level of social media addiction is associated with lower level of self-regulation and lower academic achievement in Norwegian adolescents. This study also reveals that there seems to be a relatively high number of adolescents who may have a problematic relationship with social media use which should be taken seriously as we don't know how social media will affect adolescents in the future.

6.8 Further research

There should appear more research on problematic use of social media in adolescents within a school-perspective in the future, especially in Norway. It would be useful to have the same or similar study as this one, but with larger samples. More research with larger samples may also confirm or reject assumptions that were made in this study and make the results more visible. It would also contribute to make the findings more generalizable. Additionally, larger studies with larger samples could study interrelations between the variables more closely. As discussed previously, social media addiction could function as a mediator between self-regulation and academic achievement. This would require more complex analyses which was outside the scope of this thesis to investigate this. However, it would be valuable to have more of this research in the future and with bigger samples.

Further research should also add variables in order to investigate how social media affects adolescents and how other variables can mediate each other. Research has addressed concerns about adolescents' use of social media affecting their social competence, moreover the ability to interact with people in "the real world". Communication that takes place via technical

devices lacks elements such as facial expressions and spontaneous responses to conveyed messages that would take place in a physical, face-to-face conversation (Brattøy et al., 2019, s. 7). Social competence can be referred to as knowledge, skills, and beliefs that make it possible to establish and maintain social relations (Ogden, 2018, s. 1). Social competence is also an important part of self-regulation as self-regulation is both a result of and an indicator of social competence (Ogden, 2018, s. 10). It would be interesting to see future research that addresses how social media addiction in adolescents affects their social competence from a self-regulation perspective.

Many schools, especially lower secondary schools have protocols for students using their phones during school hours. Some schools have zero tolerance for students using their phone and have so-called "hotels for phones" where teachers collect students' phones at the beginning of the day and hand them out when school is over. Other schools are more liberal and let the students use their phones during lunch and recess. As previously mentioned, there are reasons to think that adolescents mostly use social media when they are on their phones. Therefore, it would be interesting to see research that compares schools with zero tolerance for phone-use and those that let the students have their phones at some parts of the day. This could be measured with those same variables that were used in this study and investigated if there would be any differences in students at schools with different protocols for phone use. Such research would also involve shools directly in terms of deciding their protocols for phone use by referring to research that might confirm or reject negative consequences of students using phones during school hours.

A report was recently published by the National Institute of Public Health regarding on adolescents' use and experiences of social media and online gaming. They studied 3725 Norwegian adolescents in high schools in Bergen where the average age was 17,3 years (Hjetland et al., 2022, s. 6). It was published 11th of May and at the end of this thesis' due date. Unfortunately, this was a bit late to fully include in this thesis as this report would have contributed to valuable reflections for this current study. However, it might be a great opportunity for further research to study variables based on the results of this report. The participants of the study completed a survey where the questions were based on interviews with adolescents that shared their thoughts and experiences with social media and online gaming. Some of the results of the report relevant for this study were that there were in fact adolescents that reported that they experienced being addicted to social media and that a

larger proportion of reporting this was girls. Several adolescents also reported that they used active strategies to avoid being disturbed and/or to preserve their private life on social media. A quarter of the adolescents reported that they wished to learn more about how social media affects them (Hjetland et al., 2022, s. 5). This is a great reason why future research should address this as it is coming from the adolescents themselves. This study is valuable in terms of creating awareness and acknowledgment of both positive and negative consequences of adolescents' use of social media. The sample is large which is much needed in further research. However, this sample consists of students in high school and not students in lower secondary school, such as the participants in this current study. In the future, it would be valuable to see a similar report on students in lower secondary school. Additionally, further research should investigate who´s most vulnerable to experiencing negative consequences of social media and possible reasons for why they occur in that particular group.

7.0 Conclusion

Social media use has its perks and consequences. It makes it easy for people to connect all the time and across the world. It makes people follow up on the latest news and be oriented to other people's beliefs and opinions. It makes it possible to express own personal thoughts, to reach out to people, and spread a message. These are values that are important to people and social media makes this possible, easy and quick because everything is in one place. On the other hand, it makes people reduce that physical social interaction and physical activity because they spend more time on social media then in the real world. This thesis has touched on some of the negative consequences of using social media excessively among adolescents. In line with previous studies, excessive use of social media was associated with lower self-regulation (Khan et al., 2021; LaRose et al., 2003; Yang et al., 2019) and poorer academic achievement (Akbay, 2019; Azizi et al., 2019; Hou et al., 2019; van den Eijnden et al., 2018). Other studies have also found it to be associated with lower self-esteem (Andreassen et al., 2017; Bányai et al., 2017; Hou et al., 2019), narcissistic personality features (Andreassen et al., 2017), depression (Bányai et al., 2017), reduced sleep, and poorer mental health (Griffiths et al., 2018; Hou et al., 2019). This is research that shows that excessive use of social media among adolescents does in fact have negative consequences for some. Social media has likely come to stay, new social media platforms constantly appear that may have positive and negative consequences. It is therefore an issue that should be treated seriously.

The current study aimed to gain insight into possible negative consequences of social media use on adolescents' academic achievement and assess the role self-regulation may play in this addiction. Through a quantitative method approach with a cross-sectional design, 139 students completed a digital survey that reported demographic variables, hours spend on social media, students' level of social media addiction and self-regulation, and their grade point average. In line with theory and empirical research, the results were as expected. Students' social media use predicted their grade point average negatively and students' self-regulation predicted their social media use in a way that students with lower self-regulation had more indications of social media addiction. These results can contribute to creating awareness around a topic that has growing attention, especially among adolescents in school. These results are important because they show that problematic use of social media really is a thing among adolescents and that it affects their self-regulation and academic achievement negatively. Nowadays, adolescents are our future and the community systems should

contribute to address issues that affect students' lives, both in school and in general. In line with previous research, it has been suggested and encouraged the school as a learning arena and the teachers role to contribute preventing students social media use going in negative directions (Akbay, 2019, s. 564; Bányai et al., 2017, s. 10). However, the research needs to be extended. More research with larger samples would increase people's attention and create awareness around this topic. It would contribute to digging deeper into the variables in order to really investigate how they are interrelated.

I want to conclude this thesis by stating that self-regulation may play a decisive role in adolescents who are at risk of problematic use of social media. Self-regulation is a value in the Norwegian curriculum (Utdanningsdirektoratet, 2020b) which makes the management of schools and teachers knowledge valuable in terms of teaching students self-regulatory abilities. Teaching students to be aware and having a critical consciousness of their own usage could prevent social media addiction and importantly, these self-regulatory abilities are also a prerequisite to succeed in school and in life in general (Diamond, 2013, s. 136). Lastly, even if this thesis has focused more on the negative consequences rather than the positive ones, it is important to mention that being on social media is a huge part of adolescents' lives. "*It is a way of being*" (Kuss & Griffiths, 2017, s. 5). Nevertheless, one may wonder about the significance of this way of being in the future. Addiction in a social media perspective may be erased because being on social media truly is the way of being.

8.0 References

Act, T. E. (1998). *Lov om grunnskolen og den vidaregåande opplæringa (opplæringslova)* (1998-07-17-61). Lovdata. https://lovdata.no/dokument/NLE/lov/1998-07-17-61

Akbay, S. (2019). Smartphone Addiction, Fear of Missing Out, and Perceived Competence as Predictors of Social Media Addiction of Adolescents. *European Journal of Educational Research*, *8*, 559-566. https://doi.org/10.12973/eu-jer.8.2.559

Andreassen, C., Billieux, J., Griffiths, M., Kuss, D., Demetrovics, Z., Mazzoni, E. & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, *30*, 252-262. https://doi.org/10.1037/adb0000160

Andreassen, C. S., Pallesen, S. & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, *64*, 287-293. https://doi.org/https://doi.org/10.1016/j.addbeh.2016.03.006

Andreassen, C. S., Torsheim, T., Brunborg, G. S. & Pallesen, S. (2012). Development of a Facebook Addiction Scale. *Psychological Reports*, *110*(2), 501-517. https://doi.org/10.2466/02.09.18.Pr0.110.2.501-517

Apuke, O. (2017). Quantitative Research Methods : A Synopsis Approach. *Arabian Journal of Business and Management Review (kuwait Chapter). 6*, 40-47. https://doi.org/10.12816/0040336

AudienceProject. (2020). *Reach of leading social networking sites used by teenage and young adult online users in the United States as of 3rd quarter 2020 [Graph]*. Statista. Hentet March 26, 2022 fra https://www.statista.com/statistics/199242/social-media-and-networking-sites-used-by-us-teenagers/

Azizi, S. M., Soroush, A. & Khatony, A. (2019). The relationship between social networking addiction and academic performance in Iranian students of medical sciences: a cross-sectional study. *BMC Psychology*, *7*(1), 28. https://doi.org/10.1186/s40359-019-0305-0

Balakrishnan, J. & Griffiths, M. D. (2017). Social media addiction: What is the role of content in YouTube? *Journal of Behavioral Addictions*, *6*(3), 364-377. https://doi.org/10.1556/2006.6.2017.058

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, *84*(2), 191.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory* (Prentice Hall. utg.).

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, *50*(2), 248-287. https://doi.org/https://doi.org/10.1016/0749-5978(91)90022-L

Bandura, A. (1999). A Sociocognitive Analysis of Substance Abuse: An Agentic Perspective. *Psychological Science*, *10*(3), 214-217. https://doi.org/10.1111/1467-9280.00138

Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., Andreassen, C. S. & Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PLOS ONE*, *12*(1), e0169839.

Barkley, R. A. (1997). Attention-deficit/hyperactivity disorder, self-regulation, and time: toward a more comprehensive theory. *J Dev Behav Pediatr*, *18*(4), 271-279.

Blumler, J. G. K. E. (1974). *The Uses of mass communications : current perspectives on gratifications research*. Sage Publications.

Brattøy, S. C. S., Rosvoll, Å. & Eines, T. F. (2019). Hyppig bruk av sosiale medier kan gi ungdom psykiske utfordringer. *Norsk Sykepleierforbund*. https://doi.org/10.4220/Sykepleiens.2019.79774

Burgess, P. & Simons, J. (2005). Theories of frontal lobe executive function: Clinical applications. *Effectiveness of Rehabilitation for Cognitive Deficits*, 211-231. https://doi.org/10.1093/acprof:oso/9780198526544.003.0018

Carlson, N. (2011). Goldman to clients: Facebook has 600 million users. *Retrieved February*, *9*, 2011.

Carr, C. T. & Hayes, R. A. (2015). Social Media: Defining, Developing, and Divining. *Atlantic Journal of Communication*, *23*(1), 46-65. https://doi.org/10.1080/15456870.2015.972282

Clayton, R. (2001). The influence of school environment and self-regulation on transitions between stages of cigarette smoking: A multilevel analysis. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association*, *20*, 196-207. https://doi.org/10.1037/0278-6133.20.3.196

Creswell, J. (2011). *Educational Research Planning: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*.

Dabbagh, N. & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *Internet and Higher Education - INTERNET HIGH EDUC*, *15*. https://doi.org/10.1016/j.iheduc.2011.06.002

Dadiotis, A., Bacopoulou, F., Kokka, I., Vlachakis, D., Chrousos, G. P., Darviri, C. & Roussos, P. (2021). Validation of the Greek version of the Bergen Social Media Addiction Scale in Undergraduate Students. *EMBnet.journal*, *26*, e975. https://doi.org/10.14806/ej.26.1.975

Demetriou, A. (2000). Chapter 7 - Organization and Development of Self-Understanding and Self-Regulation: Toward a General Theory. I M. Boekaerts, P. R. Pintrich & M. Zeidner (Red.), *Handbook of Self-Regulation* (s. 209-251). Academic Press. https://doi.org/https://doi.org/10.1016/B978-012109890-2/50036-6

Diamond, A. (2013). Executive Functions. *Annual Review of Psychology*, *64*(1), 135-168. https://doi.org/10.1146/annurev-psych-113011-143750

Dias, P., García del Castillo, J., Moilanen, K. & Ribeirão Preto, P. (2014). The Adolescent Self-Regulatory Inventory (ASRI) Adaptation to Portuguese Context. *Paidéia (Ribeirão Preto)*, *24*, 155-163. https://doi.org/10.1590/1982-43272458201403

Duckworth, A. L. & Seligman, M. E. P. (2005). Self-Discipline Outdoes IQ in Predicting Academic Performance of Adolescents. *Psychological Science*, *16*(12), 939-944. https://doi.org/10.1111/j.1467-9280.2005.01641.x

Ellison, N. B. & Boyd, D. (2013). Sociality through social network sites. *The Oxford handbook of internet studies*, 151-172.

Ernala, S. K., Burke, M., Leavitt, A. & Ellison, N. B. (2020). How Well Do People Report Time Spent on Facebook? An Evaluation of Established Survey Questions with Recommendations. I *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (s. 1–14). Association for Computing Machinery. https://doi.org/10.1145/3313831.3376435

Espy, K. A., McDiarmid, M. M., Cwik, M. F., Stalets, M. M., Hamby, A. & Senn, T. E. (2004). The contribution of executive functions to emergent mathematic skills in preschool children. *Dev Neuropsychol*, *26*(1), 465-486. https://doi.org/10.1207/s15326942dn2601_6

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5. utg.). SAGE edge.

Finkenauer, C., Engels, R. C. M. E. & Baumeister, R. F. (2005). Parenting behaviour and adolescent behavioural and emotional problems: The role of self-control. *International*

Journal of Behavioral Development, *29*(1), 58-69.
https://doi.org/10.1080/01650250444000333

Graham, J. W. (2009). Missing Data Analysis: Making It Work in the Real World. *Annual Review of Psychology*, *60*(1), 549-576.
https://doi.org/10.1146/annurev.psych.58.110405.085530

Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use*, *10*(4), 191-197.
https://doi.org/10.1080/14659890500114359

Griffiths, M. (2019). The evolution of the 'components model of addiction' and the need for a confirmatory approach in conceptualizing behavioral addictions. Dusunen Adam The Journal of Psychiatry and Neurological Sciences. *Dusunen Adam*, *32*, 179-184.
https://doi.org/10.14744/DAJPNS.2019.00027

Griffiths, M., Lopez-Fernandez, O., Throuvala, M., Pontes, H. M. & Kuss, D. J. (2018). Excessive and problematic use of social media in adolescence: A brief overview.

Grønmo, S. (2021). *Kvantitativ metode*. Store norske leksikon. Hentet 01.04.2022 fra https://snl.no/kvantitativ_metode

Gullaksen, J. & Finnevolden, E. (2020). *Medievaneundersøkelsen 2019: Deloitte Norge*.
https://mkto.deloitte.com/rs/712-CNF-326/images/deloittes-medievaneundersokelse-2019.pdf

Herring, S. C. & Kapidzic, S. (2015). Teens, gender, and self-presentation in social media. *International encyclopedia of social and behavioral sciences*, *2*, 1-16.

Hjetland, G. J., Finserås, T. R. & Skogen, J. C. (2022). *Hele verden er et tastetrykk unna - Ungdommers bruk og opplevelser med sosiale medier og online gaming* Folkehelseinstituttet.
https://www.fhi.no/contentassets/66d4ecd513694bc781147de95c1bfe03/hele-verden-er-et-tastetrykk-unna_rapport.pdf

Hou, Y., Xiong, D., Jiang, T., Song, L. & Wang, Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *13*. https://doi.org/10.5817/CP2019-1-4

Høgheim, S. (2020). *Masteroppgaven i GLU*. Fagbokforlaget.

Imsen, G. (2014). *Elevenes verden: innføring i pedagogisk psykologi* (5. utg.). Universitetsforlaget.

Khan, N. A., Khan, A. N. & Moin, M. F. (2021). Self-regulation and social media addiction: A multi-wave data analysis in China. *Technology in Society*, *64*, 101527. https://doi.org/https://doi.org/10.1016/j.techsoc.2021.101527

Kleven, T. A. & Hjardemaal, F. R. (2018). *Innføring i pedagogisk forskningsmetode: En hjelp til kritisk tolkning og vurdering* (3. utg.). Fagbokforlaget.

Korsvik, T. R. & Rustad, L. M. (2018). *Hva er kjønnsperspektiver i forskning?: Eksempler fra tverrfaglige forskningsområder*. Kilden kjønnsforskning.no.

Kraft, P. (2014). *Selvregulering: Om endring av atferd og vaner i det moderne samfunn*. Universitetsforlaget.

Kuss, D. J. & Griffiths, M. D. (2017). Social Networking Sites and Addiction: Ten Lessons Learned. *International journal of environmental research and public health*, *14*(3), 311. https://doi.org/10.3390/ijerph14030311

LaRose, R. (2001). On the Negative Effects of E-Commerce: a Sociocognitive Exploration of Unregulated on-line Buying. *Journal of Computer-Mediated Communication*, *6*(3). https://doi.org/10.1111/j.1083-6101.2001.tb00120.x

LaRose, R. & Eastin, M. S. (2004). A Social Cognitive Theory of Internet Uses and Gratifications: Toward a New Model of Media Attendance. *Journal of Broadcasting & Electronic Media*, *48*(3), 358-377. https://doi.org/10.1207/s15506878jobem4803_2

LaRose, R., Lin, C. A. & Eastin, M. S. (2003). Unregulated Internet Usage: Addiction, Habit, or Deficient Self-Regulation? *Media Psychology*, *5*(3), 225-253. https://doi.org/10.1207/S1532785XMEP0503_01

Larose, R., Mastro, D. & Eastin, M. (2001). Understanding Internet Usage: A Social-Cognitive Approach to Uses and Gratifications. *Social Science Computer Review - SOC SCI COMPUT REV*, *19*, 395-413. https://doi.org/10.1177/089443930101900401

Lengua, L. J. (2003). Associations among emotionality, self-regulation, adjustment problems, and positive adjustment in middle childhood. *Journal of Applied Developmental Psychology*, *24*(5), 595-618. https://doi.org/https://doi.org/10.1016/j.appdev.2003.08.002

Lin, C.-Y., Broström, A., Nilsen, P., Griffiths, M. D. & Pakpour, A. H. (2017). Psychometric validation of the Persian Bergen Social Media Addiction Scale using classic test theory and Rasch models. *Journal of Behavioral Addictions*, *6*(4), 620-629.

Lundberg, D. H. n. O. (1968). *Individen och massmedia*. Norstedt.

Luo, T., Qin, L., Cheng, L., Wang, S., Zhu, Z., Xu, J., Chen, H., Liu, Q., Hu, M., Tong, J., Hao, W., Wei, B. & Liao, Y. (2021). Determination the cut-off point for the Bergen

social media addiction (BSMAS): Diagnostic contribution of the six criteria of the components model of addiction for social media disorder. *Journal of Behavioral Addictions*, *10*(2), 281-290. https://doi.org/10.1556/2006.2021.00025

Media, C. S. (2019, 29. October). *The Common Sense Census: Media Use by Tweens and Teens: New Research Finds Youtube Videos Beat Out TV and Video Games as Entertainment of Choice for Tweens and Teens.* . Common Sense. https://www.commonsensemedia.org/press-releases/the-common-sense-census-media-use-by-tweens-and-teens-new-research-finds-youtube-videos-beat-out-tv-and

Medietilsynet. (2020). *Barn og medier 2020: om sosiale medier og skadelig innhold på nett* (1). https://www.medietilsynet.no/globalassets/publikasjoner/barn-og-medier-undersokelser/2020/200211-barn-og-medier-2020-delrapport-1_-februar.pdf

Miller, E. K. & Cohen, J. D. (2001). An integrative theory of prefrontal cortex function. *Annu Rev Neurosci*, *24*, 167-202. https://doi.org/10.1146/annurev.neuro.24.1.167

Moilanen, K. (2007). The Adolescent Self-Regulatory Inventory: The Development and Validation of a Questionnaire of Short-Term and Long-Term Self-Regulation. *J Youth Adolesc*, *36*, 835-848. https://doi.org/10.1007/s10964-006-9107-9

Monacis, L., De Palo, V., Griffiths, M. D. & Sinatra, M. (2017). Social networking addiction, attachment style, and validation of the Italian version of the Bergen Social Media Addiction Scale. *Journal of Behavioral Addictions*, *6*(2), 178-186.

Muraven, M. & Slessareva, E. (2003). Mechanisms of Self-Control Failure: Motivation and Limited Resources. *Personality and Social Psychology Bulletin*, *29*(7), 894-906. https://doi.org/10.1177/0146167203029007008

NOU 2019:3. (2019). *Nye sjanser - bedre læring: Kjønnsforskjeller i skoleprestasjoner og utdanningsløp*. Kunnskapsdepartementet. https://www.regjeringen.no/contentassets/8b06e9565c9e403497cc79b9fdf5e177/no/pdfs/nou201920190003000dddpdfs.pdf

NSD. *Informasjon til deltakerne*. Norsk senter for forskningsdata. https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/sjekkliste-for-informasjon-til-deltakerne

Ogden, T. (2018). Sosial kompetanse og sosial læring hos barn og unge. *forebygging.no - kunnskapsbase og publiseringskanal for folkehelse- og rusforebyggende arbeid*. https://tidliginnsats.forebygging.no/globalassets/sosial-kompetanse_ogden2018-pubisert2.pdf

Schoenebeck, S., Ellison, N. B., Blackwell, L., Bayer, J. B. & Falk, E. B. (2016). *Playful Backstalking and Serious Impression Management: How Young Adults Reflect on their Past Identities on Facebook*. Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing, San Francisco, California, USA. https://doi.org/10.1145/2818048.2819923

Setia, M. (2016). Methodology Series Module 3: Cross-sectional Studies. *Indian Journal of Dermatology*, *61*, 261-264. https://doi.org/10.4103/0019-5154.182410

Shabi, A. (2020). *Sammenhengen mellom problematisk bruk av sosiale medier, personlighetstrekk og psykosomatiske plager* [Universitetet i Stavanger]. Stavanger. https://uis.brage.unit.no/uis-xmlui/handle/11250/2731269

Strand, M. G. (2020). Barn trenger selvregulering for å lære bedre. *Forskning.no*. https://forskning.no/barn-og-ungdom-matematikk-partner/barn-trenger-selvregulering-for-a-laere-bedre/1617134

Tanta, I., Mihovilovj , M. & Sabli , Z. (2014). Uses and Gratification Theory@ Why Adolescents Use Facebook?

ten Braak, D., Størksen, I., Idsoe, T. & McClelland, M. (2019). Bidirectionality in self-regulation and academic skills in play-based early childhood education. *Journal of Applied Developmental Psychology*, *65*, 101064. https://doi.org/https://doi.org/10.1016/j.appdev.2019.101064

Thompson, R. (1994). Emotion Regulation: A Theme in Search of Definition. *Monographs of the Society for Research in Child Development*, *59*, 25-52. https://doi.org/10.1111/j.1540-5834.1994.tb01276.x

Thune, T., Reisegg, Ø. & Askheim, S. (October. 1. 2019). *Skole og utdanning i Norge*. Store norske leksikon. https://snl.no/Skole_og_utdanning_i_Norge

Toma, C. L. & Hancock, J. T. (2013). Self-Affirmation Underlies Facebook Use. *Personality and Social Psychology Bulletin*, *39*(3), 321-331. https://doi.org/10.1177/0146167212474694

UiO. *Nettskjema*. Nettskjema.no. https://nettskjema.no/

Utdanningsdirektoratet. (2020a). *Læreplan i norsk (NOR01-06)*. Fastsatt som forskrift av Kunnskapsdepartementet. https://data.udir.no/kl06/v201906/laereplaner-lk20/NOR01-06.pdf?lang=nob

Utdanningsdirektoratet. (2020b). *Overordnet del - verdier og prinsipper for grunnopplæringen*. Kunnskapsdepartementet. https://www.udir.no/lk20/overordnet-del/prinsipper-for-laring-utvikling-og-danning/grunnleggende-ferdigheter/

Utdanningsdirektoratet. (2020c). Sosial læring gjennom arbeid med fag.
https://www.udir.no/laring-og-trivsel/skolemiljo/sosial-laring-gjennom-arbeid-med-fag/#a153827

Utdanningsdirektoratet. (2022a). Halvårsvurdering. https://www.udir.no/laring-og-trivsel/vurdering/underveisvurdering/halvarsvurdering/

Utdanningsdirektoratet. (2022b). Informasjon til nyankomne: Barnehage og opplæring i Norge. https://www.udir.no/laring-og-trivsel/minoritetsspraklige/informasjon-til-nyankomne/#a176778

van den Eijnden, R., Koning, I., Doornwaard, S., van Gurp, F. & ter Bogt, T. (2018). The impact of heavy and disordered use of games and social media on adolescents' psychological, social, and school functioning. *Journal of Behavioral Addictions*, *7*(3), 697-706. https://doi.org/10.1556/2006.7.2018.65

van Rooij, A. J., Schoenmakers, T. M. & van de Mheen, D. (2017). Clinical validation of the C-VAT 2.0 assessment tool for gaming disorder: A sensitivity analysis of the proposed DSM-5 criteria and the clinical characteristics of young patients with 'video game addiction'. *Addictive Behaviors*, *64*, 269-274. https://doi.org/https://doi.org/10.1016/j.addbeh.2015.10.018

Yang, Z., Asbury, K. & Griffiths, M. D. (2019). An Exploration of Problematic Smartphone Use among Chinese University Students: Associations with Academic Anxiety, Academic Procrastination, Self-Regulation and Subjective Wellbeing. *International Journal of Mental Health and Addiction*, *17*(3), 596-614. https://doi.org/10.1007/s11469-018-9961-1

Aalen, I. (2015). *Sosiale medier* (1. utg.). Fagbokforlaget.

Aalen, I. & Iversen, M. H. (2021). *Sosiale medier* (2. utg.). Fagbokforlaget.

9.0 Appendixes

9.1 Appendix A: Approval from NSD

Vurdering

Referansenummer
743182

Prosjekttittel
Sosiale Medier på ungdomstrinnet

Behandlingsansvarlig institusjon
Universitetet i Stavanger / Fakultet for utdanningsvitenskap og humaniora / Nasjonalt senter for læringsmiljø og atferdsforsking

Prosjektperiode
14.02.2022 - 16.05.2022

Meldeskjema ☑

Dato	**Type**
28.02.2022	Standard

Kommentar
OM VURDERINGEN
Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige personopplysninger og særlige kategorier av personopplysninger om helse frem til 16.05.2022.

LOVLIG GRUNNLAG UTVALG 1
Prosjektet vil innhente samtykke fra foresatte til behandlingen av personopplysninger om barna. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte/foresatte kan trekke tilbake.

Lovlig grunnlag for behandlingen vil dermed være foresattes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

For særlige kategorier av personopplysninger vil lovlig grunnlag for behandlingen være den foresattes uttrykkelige samtykke, jf. personvernforordningen art. 9 nr. 2 bokstav a, jf. personopplysningsloven § 10, jf. § 9 (2).

LOLVLIG GRUNNLAG UTVALG 2
Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake.

For alminnelige personopplysninger vil lovlig grunnlag for behandlingen være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 a.

For særlige kategorier av personopplysninger vil lovlig grunnlag for behandlingen være den registrertes uttrykkelige samtykke, jf. personvernforordningen art. 9 nr. 2 bokstav a, jf. personopplysningsloven § 10, jf. § 9 (2).

PERSONVERNPRINSIPPER
Personverntjenester vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

-lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at foresatte får tilfredsstillende informasjon om og samtykker til behandlingen
-formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
-dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
-lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lenger enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER
Personverntjenester vurderer at informasjonen om behandlingen som de registrerte og deres foresatte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18) og dataportabilitet (art. 20).

Vi minner om at hvis en registrert/foresatt tar kontakt om sine/barnets rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Nettskjema er databehandler i prosjektet. Personverntjenester legger til grunn at behandlingen oppfyller kravene til bruk av databehandler, jf. art 28 og 29.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde:

https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema. Du må vente på svar fra oss før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET
Personverntjenester vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Kontaktperson hos oss: Line Raknes Hjellvik

Lykke til med prosjektet!

«Sosiale Medier på Ungdomstrinnet»

INFORMASJON TIL FORESATTE

Hei! Lurer du også på hvordan bruk av sosiale medier påvirker elever sine skoleresultater? La da barnet ditt bli med på forskningsprosjektet «Sosiale Medier på Ungdomstrinnet»!

Vi er interessert i å finne ut hvordan elever på ungdomstrinnet sin bruk av sosiale medier henger sammen med deres skoleresultater og selvregulering. Dette er et spørsmål til deg/dere (heretter «deg») om å la ditt/deres barn (heretter «ditt barn») delta i forskningsprosjektet.
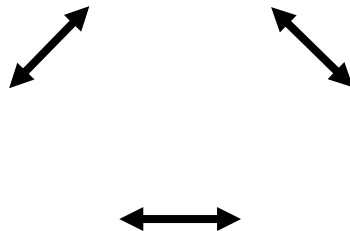
Formål med forskningsprosjektet

Vi lever i en økende digitalisert verden hvor sosiale medier er en stor del av mange sitt liv, særlig de unge. Forskning viser at mye tid på sosiale medier kan få negative konsekvenser. Formålet med dette prosjektet blir dermed å finne ut hvordan elevenes bruk av sosiale medier henger sammen med deres selvregulering (elevens evne til å fokusere seg, hemme impulser og bruke sitt arbeidsminne) og skoleprestasjoner. Slik kan vi få kunnskap om hvordan skolen kan innføre eventuelle tiltak og hjelpe elever med å få et mer bevisst forhold til sitt bruk av sosiale medier.

Hvem er ansvarlig for forskningsprosjektet?

Det er master student Ida Simonsen ved Universitetet i Stavanger, som leder datainnsamlingen og som kommer til å skrive en masteroppgave om resultatene.

Det er førsteamanuensis Dieuwer ten Braak ved Nasjonalt senter for læringsmiljø og atferdsforskning («Læringsmiljøsenteret»), Universitetet i Stavanger, som veileder Ida Simonsen og som står som prosjektansvarlig.

Hvorfor får du spørsmål om å la ditt barn delta?

For at vi skal kunne undersøke hvordan bruk av sosiale media henger sammen med selvregulering og skoleresultater så trenger vi informasjon om dette fra mange elever. Vi ønsker derfor å utføre en spørreundersøkelse på ungdomstrinnet ved flere ulike skoler, blant annet på skolen ditt barn er elev ved.

Hva innebærer det for ditt barn å delta?

Hvis du velger å la barnet ditt delta i dette forskningsprosjektet innebærer det at barnet fyller ut et spørreskjema. Det vil ta cirka 15 minutter. Spørreskjemaet inneholder spørsmål om barnet sitt bruk av sosiale medier (f.eks. om barnet bruker mye tid på å tenke på sosiale medier), barnet sin evne til å regulere seg selv (f.eks. om hvor godt barnet klarer å holde styr på leksene), derunder spørsmål som relaterer seg til hvordan barnet ser på seg selv og sin personlighet. I tillegg vil barnet bli spurt om å oppgi gjennomsnitt av halvårsvurderingen med karakterer fra desember 2021. Spørreundersøkelsen vil bli utført digitalt, på skolen. Foresatte kan få se spørreskjemaet dersom de ønsker det. Da kan du kontakte meg, Ida Simonsen på mail (i.simonsen@stud.uis.no).

Anonymitet og samtykke

Det vil ikke bli samlet inn data som er direkte identifiserende opplysninger i spørreundersøkelsen. Eleven vil blant annet bli spurt om å oppgi fødselsdato, kjønn og hvilket

trinn han/hun går på og det er frivillig å svare på alle spørsmål. Det er kun jeg, Ida Simonsen og min veileder Dieuwer som har opplysninger om hvilken skole eleven går på, elevens foresatte (ift underskrift) og hvem som velger å delta. Undersøkelsen kan derfor ikke kalles helt anonym pga opplysningene vi får tilgang til. Men den vil være anonym i den forstand at de som leser masteroppgaven vil ikke kunne vite hvem som har svart på spørreundersøkelsen og heller ikke hvilke skoler som har deltatt. Barnets svar på spørreundersøkelsen kan dermed ikke kobles til hvem han/hun er. Hverken læreren, foreldre eller noen andre enn forskere får innsyn i hva elevene har fylt ut i spørreskjemaene.

For at vi skal kunne inkludere ditt barn i dette prosjektet, må vi ha underskrift på samtykkeerklæringen nedenfor. Vi ber derfor om du/dere skriver under på samtykkeerklæringen og sender den i retur til skolen innen en uke.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å la ditt barn delta, kan du trekke samtykke tilbake uten å oppgi noen grunn, men senest før selve datainnsamlingen tar sted. Det vil ikke ha noen negative konsekvenser for barnet dersom du ikke vil at barnet skal delta eller senere velger å trekke samtykket. Barnet vil få informasjon om frivillighet og at det ikke vil ha noen negative konsekvenser hvis barnet ikke vil delta eller ønsker å trekke seg. Selv om foresatte samtykker på vegne av barnet, kan barnet likevel velge å ikke delta. Valget av deltakelse vil ikke påvirke forholdet til oss som forskere eller til lærerne på skolen.

Hva gjør elevene som ikke skal delta imens spørreundersøkelsen pågår?

Dersom du ikke ønsker at barnet skal delta i prosjektet, vil det forekomme et alternativt opplegg mens spørreundersøkelsen pågår. Opplegget vil være i tråd med læreplanen og gjenspeile kompetansemålet *å kunne utforske og vurdere hvordan digitale medier påvirker og endrer språk for kommunikasjon* i norskfaget etter 10.trinn. Dette skal også være digitalt slik at elevene kan sitte sammen med de andre i klassen når spørreundersøkelsen pågår. Alle elevene vil dermed holde på med hver sin PC i klasserommet.

Ditt barns personvern

Vi vil kun bruke datamaterialet til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket. Resultatene av

prosjektet vil bli offentlig publisert (gjennom masteroppgaven og eventuelt en publisering i et vitenskapelig tidsskrift). Som forskere er vi underlagt etiske forskningsforskrifter og forholder oss strengt til disse. Det er svært viktig for oss å understreke at det vil kun blir synlig at studien er utført i Rogaland. Ingen skal kunne kjenne igjen enkeltskoler eller enkeltelever i vår rapportering av resultater.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Alle personopplysninger som oss forskere har tilgang til, vil bli slettet når prosjektet er levert. Masteroppgaven har en leveringsfrist 03.06.22 og personopplysninger vil bli slettet innen denne datoen. Etter dette vil data bli oppbevart uten personopplysninger slik at det kan brukes til videre forskning.

Hva gir oss rett til å samle inn opplysninger om ditt barn?

Vi behandler opplysninger fra barnet basert på ditt samtykke. På oppdrag fra Læringsmiljøsenteret har NSD – Norsk senter for forskningsdata AS, vurdert at prosjektet er i samsvar med personvernregelverket.

Barnets rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:
- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg

Vi vil informere elevene om studien og deres rettigheter i begynnelsen av undersøkelsen. Du har rett å sende klage til Datatilsynet om behandlingen av barnets opplysninger.

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:
- Master student Ida Simonsen: i.simonsen@stud.uis.no
- Førsteamanuensis Dieuwer ten Braak ved Nasjonalt senter for læringsmiljø og atferdsforskning; dieuwer.t.braak@uis.no
- Personvernombud: Rolf Jegervatn, personvernombud@uis.no

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:

- NSD – Norsk senter for forskningsdata AS, personverntjenester på epost (personverntjenester@nsd.no) eller på telefon: 53 21 15 00.

Husk å skrive under på samtykkeerklæringen og sende den i retur til skolen <u>innen en uke</u> om du vil at barnet ditt skal delta i prosjektet!

Med vennlig hilsen

Dieuwer ten Braak   Ida Simonsen

Førsteamanuensis/veileder/prosjektansvarlig   Master Student

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet «Sosiale Medier på Ungdomstrinnet», og har fått anledning til å stille spørsmål.

☐ Jeg samtykker til å la mitt barn delta i spørreundersøkelsen

Navn på eleven (bruk blokkbokstaver): …………………………………………..

Sted ……………………………………………… Dato ……………………………..

Foresattes underskrift: ……………………………………………………………..

Send denne i retur til skolen <u>innen en uke </u> om du vil at barnet ditt skal delta.

BSMAS – Bergen Social Media Addiction Scale (Andreassen et al., 2016). Norwegian questions were found in Anita Shabi´s thesis where Andreassen herself was the supervisor (Shabi, 2020, s. 74).

Sosiale medier

Under finner du spørsmål som er knyttet til din bruk av sosiale medier. Dette kan for eksempel være Instagram, Facebook, Snapchat, TikTok og lignende. Velg det svaralternativet for hvert spørsmål som beskriver deg best.

Hvor ofte i løpet av det siste året har du...

	Svært sjelden	Sjelden	Av og til	Ofte	Svært ofte

Brukt mye tid til å tenke på sosiale medier eller planlegge bruk av sosiale medier?

Følt en trang til å bruke sosiale medier mer og mer?

Brukt sosiale medier for å glemme personlige problemer?

Prøvd å kutte ned på sosiale medier uten å lykkes?

Blitt rastløs eller urolig dersom du har blitt forhindret fra å bruke sosiale medier?

Brukt sosiale medier så mye at det har gått ut over skolearbeidet?