Håvard Bergesen Dalen

Social relations in organised youth sport: Networks, gender, status, friends and education

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Summary

Organised sport is an important social arena for Norwegian youth, but there is still a lot to learn about how sport operates as a venue for socialisation. The main goal of this dissertation is to gain a better understanding of organised youth sport as a social arena. The research focuses on the social relations between athletes – their antecedents, structural properties and consequences – and the findings are presented in four articles.

In Article 1, we use social network analysis to investigate what organised youth sport as a social arena structurally looks like, with special attention to differences in the social networks of boys and girls in sport. Our research shows that social relations are prevalent, but there are clear differences in social networks between sports teams. In comparison to boys, girls' social networks have more social relationships and denser network structures, and subgroups within larger network structures are more frequent. Overall, our study shows that social networks are highly diverse, which indicates that sports teams differ in their ability to fulfil the many tasks they are hoped to achieve: to offer enjoyable social experiences, to be integrative units, to generate social capital and to contain social structures that contribute to cohesion and performance.

Article 2 focuses on where social relations come from by examining how athletes' social relations in sport depend on their social relations outside of sport: in school, in other leisure activities and on social media. The results show that social relations in sport are linked to social relations from outside, especially those from social media and other leisure activities, but also from school. We discuss how these findings can have consequences for participation in sport and argue for the importance of supporting youth's social relationships outside of sport to strengthen their social relationships in sport.

In Article 3, we investigate the relationship between sport and social status. First, we examine the degree to which sport is associated with social status among Norwegian youth. Second, we examine the importance of sport performances for social status within sports teams. The results show that sport has a high social status among Norwegian youth that is stable across sociocultural divides. The status of sport is highest among younger boys who are active in sport and somewhat lower among girls and older young people. Regarding social status within sports teams, the results show that high sport performers are the best liked and most popular among teammates. The article directs attention to how status processes affect athletes' sporting experiences and how social interactions and social structures in the competitive social environment of sport develop.

Article 4 investigates the relationship between sport and school. We know from previous research that sporting youth do well in school, but this link is established on simple comparisons of academic achievements between athletes and non-athletes; what is lacking is more in-depth examinations of the significance of the participation experience. Hence, Article 4 examines how sport as a social arena is consequential by investigating how social experiences in sport – represented as sport enjoyment and sport performances – are linked to school performance, homework and interest in school and education. After taking into account relevant control variables (cultural capital, time spent on sport and gender), the analysis shows a complex picture: higher enjoyment of sport correlates positively with interest in school, while better sport performances are associated with higher grades in physical education but also with less time spent on homework and less interest in school and education. The findings in this article indicate that the relationship between sport participation and school results is more complex than has been captured in previous research. The article sheds light on how social experiences in sport can have consequences beyond the sporting activity itself and for the wider social benefit of organised sport.

In summary, this dissertation highlights the complex and multifaceted nature of social relations in sport: what they structurally look like (as social networks; Article 1); where they come from (Article 2); their social significance (as social status; Article 3) and their consequences (in school; Article 4). I also shed light on how social relations in sport impact sport participation: recruitment, continuation and dropout from sport.

Sammendrag

Organisert idrett er en viktig sosial arena for norske ungdommer, men det er fortsatt mye vi ikke vet om idrettens sosiale felleskap. Hovedformålet med denne avhandlingen er å få en bedre forståelse av organisert ungdomsidrett som sosial arena. Med utgangspunkt i idrettsungdoms sosiale relasjoner—deres opphav, strukturelle egenskaper og konsekvenser— har jeg studert fire aspekter ved idretten som svarer til avhandlingens hovedformål.

I Artikkel 1 anvendes sosiale nettverksanalyser for å undersøke hvordan organisert idrett som sosial arena strukturelt ser ut, med et spesielt henblikk på gutter og jenters sosiale nettverk i idretten. Artikkelen viser at selv om sosiale relasjoner er utbredt, er det tydelige forskjeller i sosiale nettverk mellom idrettslag, og mellom gutter og jenter: Sammenliknet med gutter inneholder jenters sosiale nettverk flere sosiale relasjoner, nettverksstrukturene er tettere, og sosiale klikker er mer utbredt. Alt i alt tegner studien et komplekst bilde av hvordan sosiale nettverk ser ut i den organiserte ungdomsidretten, og vi argumenterer for at dette kan ha implikasjoner for hvordan idrettslagene opererer og deres evne til å løse oppgaver de er tilskrevet: å gi positive sosiale erfaringer, tilby et sosialt inkluderende sosialt miljø, bidra til sosial kapital og inneholde sosiale nettverksstrukturer som bidrar til kohesjon og prestasjonsevne.

Artikkel 2 fokuserer på hvordan idrettsungdoms sosiale relasjoner i idretten avhenger av deres sosiale relasjoner utenfor idretten: i skolen, i andre fritidsaktiviteter og på sosiale medier. Resultatene viser at sosiale relasjoner i idrett henger sammen med sosiale relasjoner utenfra og særlig de fra sosiale medier og andre fritidsaktiviteter, men også skolen. Vi retter søkelyset mot hvordan dette har konsekvenser for deltakelse i idrett, og argumenterer særlig for viktigheten av å støtte opp om idrettsungdoms sosiale relasjoner utenfor idretten for å styrke deres sosiale relasjoner i idretten.

I artikkel 3 studerer vi forholdet mellom idrett og sosial status. Først undersøker vi i hvilken grad idrett er assosiert med sosial status i jevnalderfellesskapet. Deretter ser vi nærmere på viktigheten av idrettslige ferdigheter for sosial status innad i idrettslag blant idrettsaktiv ungdom. Resultatene viser at idrett har høy en sosial status blant norske ungdommer som er stabil tvers av sosiokulturelle skillelinjer. Idrettens status er noe høyere blant yngre gutter som er aktiv i idrett, og noe lavere blant jenter og eldre ungdommer. For sosial status innad i idrettslag viser resultatene at utøverne med de beste idrettslige ferdighetene er de best likte og mest populære blant lagkamerater. Artikkelen peker på hvordan statusprosesser innvirker på utøveres idrettslige erfaringer, hvordan sosiale

interaksjoner i idrettens konkurransedrevne sosiale miljø fortoner seg, og hvordan sosiale strukturer utvikles.

Artikkel 4 undersøker forholdet mellom idrett og skole. Vi vet fra tidligere forskning at idrettsungdom gjør det bra i skolen, men denne koblingen er etablert ved hjelp av enkle analyser som sammenligner akademiske prestasjoner mellom idrettsutøvere og ikke-idrettsutøvere: Det mangler analyser som nyanserer de sosiale erfaringene som følger med idrettsdeltakelsen. I Artikkel 4 undersøkes dette ved å se på hvordan sosiale erfaringer i idretten—som idrettsglede og idrettslige prestasjoner—henger sammen med skoleprestasjoner, leksegjøring og interesse for skole og utdanning. Etter å ha tatt høyde for relevante kontrollvariabler (kulturell kapital, tid brukt på idrett og kjønn) viser analysene et sammensatt bilde: høyere idrettsglede korrelerer positivt med skoleinteresse, mens bedre idrettsprestasjoner er forbundet med bedre karakterer i kroppsøving, men også med mindre tid brukt på lekser og mindre interesse for skole. Funnene i artikkelen indikerer at forholdet mellom idrettsdeltakelse og skoleresultater er mer komplekst enn hva som er fanget opp i tidligere forskning. Artikkelen kaster lys på hvordan sosiale erfaringer i idretten kan ha konsekvenser utover selve idrettsaktiviteten og for den bredere samfunnsnytten av organisert idrett.

Oppsummert viser denne avhandlingen kompleksiteten i sosiale relasjoner i den organiserte ungdomsidretten: hvordan de strukturelt ser ut (som sosiale nettverk; artikkel 1); hvor de kommer fra (artikkel 2); deres sosiale betydning (som sosial status; artikkel 3) og hvordan de har konsekvenser (i skolesammenheng; artikkel 4). Avhandlingen retter også søkelyset mot hvordan sosiale relasjoner er av betydning for deltakelse idrett: for rekruttering, fortsettelse og for frafall fra idretten.

List of articles

Article 1

Bergesen Dalen, H. and Seippel, Ø. (2019). Social networks and gender in organized youth sports. *European Journal for Sport and Society*. DOI:
https://doi.org/10.1080/16138171.2019.1693143

Article 2

Bergesen Dalen, H. and Seippel, Ø. (2021). Friends in Sports: Social Networks in Leisure, School and Social Media. *International Journal of Environmental Research and Public Health*. DOI:
https://doi.org/10.3390/ijerph18126197

Article 3

Seippel, Ø. and Bergesen Dalen, H. (2023). Social status and sport: A study of young Norwegians. *International Review for the Sociology of Sport.* DOI:
https://doi.org/10.1177/10126902231202924

Article 4

Bergesen Dalen, H. (under review). Organised Sports and School: Conflicting or Mutually Supportive Arenas? The Significance of Sporting Experiences. *Nordic Journal for Youth Research.*

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Chapter 1 | Introduction

Sport is one of the most important social arenas for Norwegian youths. Over 90 percent of Norwegian youths participate in organised sport at some point (Bakken, 2019), and in its ideal form, sport offers a collaborative and supportive environment where youths can meet and thrive (Jones, 2001). The Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF), which organises youth sport in Norway, operates from the vision of "sport for all", meaning that sport should be accessible for everyone and provide a safe and enjoyable social environment. Emphasis is placed on facilitating social development among participants, such as learning about conflict resolution, cooperation and teamwork while working together in pursuit of a common goal: victory and sporting success (NIF, 2019). Sport is also expected to serve wider social functions (Coalter, 2007; Waardenburg & Nagel, 2019), and there is the view that 'Sport (be it competitive or not) must be conceived, first of all, as a means to promote education' (Isidori & Benetton, 2015, p. 692). The goals and visions set out for sport are central components for the legitimisation and public funding of sport (Bergsgard, 2016; Österlind, 2016).

However, participation in youth sport in and of itself does not guarantee that the goals and visions set out for sport are fulfilled. Firstly, much of what we take as facts about sport is based more on belief than empirical facts (Coakley, 2015a; Long, 2008). Secondly, there is a concern that anecdotal ideal descriptions of the assumed benefits of sport coupled with the high participation numbers have led to a normalisation of sport as a natural part of youth upbringing. This, it has been suggested, has given rise to a cultural imperative – that sport works in a certain way and is good for everyone – and therefore is taken for granted (Strandbu, Solstad, Stefansen, & Frøyland, 2023). Thirdly, while we know a lot about the athletes – who they are, their motives and how many opt out (Bakken, 2019) – we know far less about what goes on socially in youth sport: athletes' social relations with co-athletes (Wäsche, Dickson, Woll, & Brandes, 2017). This is unfortunate, as there is little doubt that organised youth sport is a complex matter, filled with difficulties that need solving. One of the most important tasks is to make sure that sport functions as a social arena where the participants want to continue and not drop out. Achieving this depends on several related issues, such as social inequality, sexism, lack of enjoyment, increasing specialisation, and performance pressure (Fraser-Thomas & Côté, 2009). As a whole, there seems to be i) a considerable distance between the social ideals set up for sport and the many social challenges it faces, and ii) much we lack knowledge about when it comes to solving problems in sport and for the potential benefits attributed to sport to be fully realised.

In this dissertation, I argue that to for sport to operate to the best of its possibilities, we need more knowledge about the fundamental social conditions underlying young people's participation – of the social relations between athletes that shape the individual sporting experience and the broader social structures in sport in which athletes are embedded. I will examine four aspects of sport as a social arena, each with a specific angle and subquestions. The goal is that the four aspects, both individually and as a whole, contribute to a better understanding of the role of sport among young people and, hopefully, provide new knowledge and insights that give direction to how sport should be organised to achieve its intended purposes.

As a first aspect, I aim to contribute to a clearer understanding of ***what organised youth sport as a social arena looks like***. It is commonly agreed that organised sport, by bringing youth with shared interests together for enjoyable activities, is distinctively poised to promote positive social relations and social connectedness among peers (Graupensperger, Panza, & Evans, 2020; Jones, 2001). In this project, I define a social relation as social connections or ties between athletes (Kadushin, 2012), and previous research has shown that the social relationships of athletes and the larger networks these relationships create play an essential role in how sport is experienced and the degree to which athletes find sport meaningful (Allen, 2003; Beni, Fletcher, & Ní Chróinín, 2017). Sport relations can also influence quality of life (Downward & Rasciute, 2011; Malm, Jakobsson, & Isaksson, 2019), psychosocial health (Moeijes, van Busschbach, Bosscher, & Twisk, 2018), motivation for sport (Allen, 2003), learning (Dyson, Griffin, & Hastie, 2004), social integration (Hylton, 2010) and the conveyance of social capital (Seippel, 2006b). However, current understandings of social relations between athletes in organised youth sport are, for the most part, based on anecdotal accounts or indirect measurements. What I see as missing is more precise measures of *actual* social relations between team members. To fill this knowledge gap, I use social network analysis (SNA) to study the social world of sports concretely – as social relations embedded in social networks. SNA is a set of theories and methods that can reveal patterns and structures of relationships that are difficult to access with more traditional research methods and could thereby open doors to previously unchartered research territory about social relations in sport (Kim & Yim, 2017; Wäsche et al., 2017).

The significance of gender needs to be recognised in this inquiry, as gender permeates all areas of social life, including sport (Dworkin & Messner, 2002). Sport has traditionally been heavily a gendered domain, building on gender norms praising masculinity and with boys participating in higher numbers than girls. However, an important development in

modern Western society is the fight for gender equality, and at the same time as women have increased their presence in the public discourse and in the labour market, the gap in participatory levels in organised youth sport between the sexes has closed markedly (NIF, 2023b). Gender equality in sport is also on the agenda among international organisations, and both the International Olympic Committee (2021) and the European Commission (2015) have drawn up reports and sport policy documents on developments and future objections to gender equality in sport.

A possible consequence of the more equal levels of participation and the framing of gender as something that the international sporting community takes seriously may be that gender ends up being considered less interesting and/or as a problem already solved. As highlighted by Eriksen (2022), there are voices suggesting that because the gap between the sexes in participation levels is closing, Norwegian sports are gender-equal. However, although sport organisations and sport policies in Norway and many other European nations aim for gender equality (Ibsen et al., 2016; Skille, 2011; Skirstad, 2009), research indicate that this goal has not yet been fully achieved: Gender still operates as a binary reflecting structural and symbolic gender arrangements (i.e. hegemonic gender norms) that mirror athletes' biological sex (Eriksen, 2022; Krane & Kaus, 2014; Messner, 2011; Metcalfe, 2018; Pfister, 2010), and sport culture emphasise qualities such as toughness, aggressiveness and competitiveness, which are characteristics that are linked to hegemonic masculinity (Eriksen, 2022). Importantly, previous research has indicated that this gendered dimension of sport promotes masculine and feminine behaviours that have consequences for social relations (Liston, 2006). This tension in organised sport – on the one hand as a promotor of gender equality and on the other as dominated by gender essentialist ideas – has received little attention (Alsarve, 2018) and underscores the importance of studying gender differences in boys' and girls' social networks in sport.

A second aspect I investigate is *where social relations in youth sport come from*; that is, what are the sociogenerative processes through which bonds between athletes come into being? On the one hand, it seems clear that social relations in sport develop from within; it is generally accepted that sport has inherently social qualities that unite participants and contribute to the development of friendships and social relationships (Graupensperger et al., 2020; Jones, 2001). Via training grounds, locker rooms, pitches and travelling, sport is widely considered an ideal site for social interaction. Norwegian sport club representatives are themselves aware of this and see it as their main mandate to bring youth with an interest in sport together for social interaction, while more instrumental objectives pertaining to welfare

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issues and the provision of physical activity come second (Seippel & Skille, 2015; Skille, 2010). Put short, organised sport in Norway is, as Ibsen and Seippel (2010) describe it, *introverted.* This introvertedness is reflected in athletes' motives for being active in sports, where fun and enjoying activities have the strongest support among young athletes (Seippel, 2006a).

While sport might promote social relations, athletes also meet and socialise outside of sport. From this viewpoint, the sociability of sport does not operate in isolation, cut off from youth's other fields of socialisation but is very much part of their larger societal landscape with which it is in continuous dialogue. As noted by Coakley (2015b), 'patterns of social interaction in sports are influenced by many factors, including those outside of sport environments' (p. 4). This suggests that studying sport and other social arenas in which athletes socialise collectively could increase our knowledge of how social relations in sport develop (Dorsch et al., 2022). Yet, a recent review article shows that we know very little about how athletes' social relationships and social networks in sports are affected by athletes' larger social environment (Wäsche et al., 2017). Important meeting places next to sport include school, non-sport leisure activities and social media (Jacobsen, Andersen, Nordø, Sletten, & Arnesen, 2021; Sjolie, Olsen, & Hempel, 2023; Statistics Norway, 2019), and the relative importance of these social arenas for (different types of) social relations in sport has not been thoroughly investigated. Hence, it is timely and interesting to investigate whether athletes carry social exposures and relations from meeting and socialising in these social arenas into their social relations in sport. Accordingly, in Article 2, I use SNA to examine how social networks outside of sports – in school, leisure and social media – influence social networks in sport.

The third aspect I seek to grasp is ***the social significance of youth sport: as social status***. The rationale behind this query is that Norwegian youth play organised sport in huge numbers, and there is no doubt that sport is highly valued, which raises the following question: How is sport socially significant for Norwegian youth? To answer this question, I study sport from a social status perspective. Social status can be defined as the '…comparative social ranking of people, groups, or objects in terms of the social esteem, honour, and respect accorded to then' (Ridgeway, 2019, p. 1). There is a long tradition of studying the associations between sport and social status. However, most studies emanate from the United States (e.g. Chase and Dummer (1992), Chase and Machida (2011), Coleman (1961) and Shakib, Veliz, Dunbar, and Sabo (2011)), and since our sport systems are very different, lessons learned from the United States are not necessarily transferable to Norway.

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I look at two dimensions of social status: i) the overall status of sport in the general peer community and ii) how athletes can gain social status within sport. For the first dimension, I compare the status of sport with other status markers assumed important for youth. Moreover, sport is a status marker embedded in power hierarchies and influenced by social characteristics such as age, gender and socioeconomic status, so I consider how these characteristics affect the social status associated with sport. To answer the second dimension – how athletes can gain social status within sport – I start from the general notion that sport constitutes a performance-oriented social environment (Bean, Shaikh, Kramers, & Forneris, 2021) and examine the importance of athletes' sport performances to their social status within sport.

The fourth and last aspect I focus on in this dissertation is how ***social relations in youth sport are consequential***. I do so by examining the relationship between sport and school. Sport is widely regarded as a social activity related to health and wellness that allows participants to live a satisfactory social life that comes with spillover effects into communitarian life (Waardenburg & Nagel, 2019). This wider role of sport is important for the state's funding of organised sport in Norway. In alignment of this view is the depiction of sport-active youth as motivated, conscientious, structured, performance-oriented, popular among peers and in tune with their surroundings. Because of the assumed benefits of sport, the last decade has seen an increasing amount of empirical research from the Norwegian context assessing links between sport and school (Mehus, 2016; Skauge & Hjelseth, 2021; Sletten, Strandbu, & Gilje, 2015; Stea & Torstveit, 2014). Unfortunately, most of these studies have tended to use participation in organised youth sport as a proxy for social experiences in sport or have been concerned with comparing school results between sport participants and non-participants. While it might be that it is the participation per se that matters for the positive association between organised sport and school found in previous studies, I find merit in Coalter's (2007) notion that 'The nature and extent of any effects will depend on the nature of the experience, i.e. the process. Sport is not a homogeneous, standardised product or experience' (p. 34). Specifically, what I see as needed is more attention to the quality of participation: the significance of enjoying sport (or not) or performing well (or not). Filling this gap in the literature can have major implications for policy, funding, the overall legitimisation of organised youth sport and the ties between NIF and the Norwegian school system. Article 4 is therefore devoted to examining athletes' school performances – time spent on homework and educational ambitions after taking into account their enjoyment of sport and sport performances.

Overall aim of the dissertation

Against this backdrop, the purpose of each of the four articles is to examine the social world of sport from different angles to answer ***the overall aim of the dissertation, which is to gain a better understanding of organised youth sport as a social arena: its manifestations, causes, significance and consequences.***

Research questions

I pursue this overall aim of the dissertation by answering the following four research questions (RQs):

RQ 1: What do the social networks within sport teams look like and how do we explain differences between girls' and boys' social networks in sport? (Article 1)

RQ 2: How does the quantity and quality of young athletes' social relations in sport depend on participation in social arenas outside sport? (Article 2)

RQ 3: To what extent does sport give social status to Norwegian youth and athletes, how is the status of sport influenced by age, gender and socioeconomic status and how important is sport performance to athletes' social status? (Article 3)

RQ 4: How is the quality of the sport experience significant for how young athletes perform at school and show interest in education? (Article 4)

To answer RQ 1, I examined the structural properties of social networks in sport using SNA, with a special focus on whether the observed social networks had differences that follow sport segregation of athletes into teams according to their sex. For RQ 2, I examined whether the probability of developing social relations in social networks in sport was influenced by spending time together outside sport in school, non-sport leisure and social media. To this end, I employed exponential random graph models (ERGMs), which are strongly recommended as the preferred statistical method for predicting social relations in (sport) networks (Lusher, Koskinen, & Robins, 2013, p. 222). To answer RQ 3, I first conducted a descriptive comparative analysis of sport and other potential status markers – school, look, trust, alcohol, drugs, fashion, social media and politics – and then ran a set of regression analyses to examine the role of social background in social status processes. This was followed by a second regression analysis that showed the strength of the association between

athletes' sport performance and popularity and likeability. For RQ 4, I measured how the quality of the sport experience – as enjoyment and sport performance levels – was of significance for young athletes' academic achievements, time spent on homework and interest in education.

Disposition

The dissertation consists of two parts. In the first part, I present the overall research framework. I have already introduced the purpose of the study and the research questions. In Chapter 2, I give a brief description of the organisational context within which the study is situated: organised youth sport in Norway. In Chapter 3, I present the dissertation's theoretical frame of reference. I start this chapter by discussing my approach to theory. Next, I outline my ontological and epistemological positioning. After that, I clarify the theoretical themes and concepts employed in each of the four articles: social network analysis, social network mechanisms, sport as a gendered space, sport and social status, and sport in relation to school. In Chapter 4, I describe and reflect upon the project's research design, methods employed in the empirical enquiry, and considerations and limitations specific to the chosen methods and measures. Following this, Chapter 5 is devoted to a summary of the dissertation's four articles with an explanation of choice of research questions, hypotheses and a summary of the key empirical insights from each of the four articles. In Chapter 6, I discuss the broader contributions and implications for practice: recruitment to sport, continuing in sport and how to avoid dropout from sport. I wrap up this part with suggestions for further research. The second part presents the articles.

Chapter 2 | The context

The empirical focus of this dissertation is organised youth sport in Norway. In this chapter, I introduce the context to enable a better understanding of why this study of organised youth sport as a social arena is meaningful and important. I begin by providing a historical account of the development and expansion of organised sport in Norway. Thereafter, I describe the organisational structure and membership numbers of organised sport today, with emphasis on the increased participation of girls. Following this, I provide an account of organised sport's ties with the welfare state. Finally, I draw on modernist notions of physical activity culture to reflect on the social significance of organised sport among today's youth.

The pre-war era: Birth and early developments of organised sport

NIF is the umbrella organisation for youth sport in Norway and has to be understood in relation to its historical roots in Norwegian society. Organised sport in Norway first came into being in 1861, with the establishment of "The Central Federation for the Promotion of Bodily Exercise and Weapon Use (Centralforeningen for Utbredelse af Legemsøvelser og Vaabenbrug)", the first umbrella organisation for sport. In 1924, the Laborers Sports Federation ("Arbeidernes Idrettsforbund") was founded in opposition to the bourgeois profile of the National Sports Federation ("Landsforeningen for Idræt"), a successor of the federation of 1861 (Skille & Säfvenbom, 2011). In 1946, the two organisations merged to form the Norwegian Confederation of Sports ("Norges Idrettsforbund") for the purpose of rebuilding the Norwegian sport movement after the Second World War (Skille, 2004). After the merger, two different organisational traditions continued to exist within the new organisation. The current focus of "sport for all" is an antecedent from the Laborers Sports Federation, while the focus on competition (and elite sport) can be traced back to the bourgeois organisation. In 1996, the Norwegian Confederation of Sports merged with the Norwegian Olympic Committee. This was followed by the inclusion of the Paralympic Committee in 2008 and a renaming of the organisation to its current name, NIF (Skille & Säfvenbom, 2011).

The post-war era: Membership growth and gender (r)evolution

Youth policy was a low priority in Norwegian sport before and after the war but gained momentum in the 1970s and 1980s, and from the mid-1980s, it became a central part of Norwegian sport policy. Youth membership increased, new sports were incorporated into the organisation and there was an enormous increase in the construction of sport facilities with state funding in the same period (Solenes, 2016). This period has been referred to as the "sporting revolution in Norway" due to the explosive membership growth of young people

and increased participation from girls (Tønnesson, 1986). Today, NIF is the largest voluntary youth organisation in Norway, with approximately 1.8 million memberships, of which more than 850,000 belong to young people aged 0–19 (NIF, 2023b, p. 7) distributed among 55 national sport federations, 19 regional sport federations and approximately 12,000 local sport clubs.[1] Recruitment is now as high among girls as among boys, but gender differences increase in the teenage years, with girls dropping out earlier and in larger numbers (Bakken, 2019). Yet, because of the historical underrepresentation of girls in sport, most previous research has been concerned with investigating gender differences in socialisation *into* sport (see for example Fasting, 2002; Fasting & Sisjord, 1985; Sisjord, Fasting, & Sand, 2017; Strandbu & Sletten, 2011); the topic of girls' and boys' socialisation patterns *in* sport is much less studied. Today, a staggering 93% of Norwegian girls and boys have participated in sport at some point (Bakken, 2019), which underlines the importance of increasing our knowledge of what goes in sport. Moreover, participants are spread out in different sport activities, where factors such as traditions, degree of emphasis on competition, frequency of training sessions and team sizes can vary. It is natural to assume that the social relations between athletes within sport teams as well as the social experience of taking part in sport can vary in accordance with such differences in team-level characteristics, and with it, teams' ability to fulfil expectations: to be socially inclusive units where everyone enjoys participating, regardless of social background, performance levels or sporting ambitions. Taken together, the increased participation of girls and high participation rates underline the importance of attaining a better understanding of girls' and boys' social networks in sport, which motivates the first article of this dissertation.

Funding and ties to the welfare state

As most of the state's sport policy has been developed for children and youth, and NIF is the largest organisation for children and youth, NIF receives large financial contributions. In 2023, the government spent a total of 3,435 million Norwegian kroner (€332 million) on sport activities and facilities, of which 775 million (€78 million) was allocated directly to NIF and included funding to youth sport (Ministry of Culture and Equality, 2022). State funding is financed through the profits of the National Gambling Agency, is negotiated on an annual basis between the state and the NIF and is not subject to parliamentary negotiations like most other state grants. Municipalities also put money in sport in the form of grants for equipment

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[1] For more information about the organisation of organised sports in Norway, see
https://www.idrettsforbundet.no/english/

and for building and maintenance of sport facilities (St.meld. nr 26., 2012). When it comes to the use of these facilities, priority is given to children and youth over adults.

Although organised sport operates more or less autonomously from the state and the school system, it is important to note that sport facilities are usually located in geographical proximity to local schools; thus, young people often participate in these clubs with their peers from school (Strandbu, Bakken, & Sletten, 2019). This link between sport and the educational system is illustrative of how youth social arenas are interconnected through athletes' everyday social lives: they not only spend time together in sport but also in school, on social media and when doing other leisure activities. An interesting study in this regard is that by Schaefer, Simpkins, Vest, and Price (2011) who studied high school student friendships and found that participating in the same leisure activities increased the likelihood of developing friendships at school. It is interesting to find out if the effects of joint socialisation in multiple social arenas also influence social relations in sport: whether athletes who meet and interact outside of sport are more prone to develop social relationships within sport. This is therefore a main topic in Article 2.

Sport for all in the age of individualisation

The state's support for sport can be traced back to the ideological agreement between the NIF and the state regarding the overall purpose and value of youth sport. As in the rest of the Western world, sport in Norway is considered a solution to many social problems and challenges (Coalter, 2007; St.meld. nr 26., 2012). The fact that sport is attributed to important social tasks means that it has broad social relevance as a social arena. It is no surprise, then, that government white papers (St.meld. nr 26., 2012) and strategic documents issued by the NIF (NIF, 2023a) both embrace "sport for all" and that sport should be inclusive of everyone. An important dimension of sport for all and achieving mass participation is that sport succeed with recruitment. To successfully draw youth in, young people need to see sport as attractive and meaningful – a place to achieve (intrinsic and/or extrinsic) rewards. This presupposes that sport has a certain status and is organised and represents values that match young people's wishes and needs. This is a challenge that needs delving into because organised youth sport is organised in ways that could be seen as reflecting both modernity and tradition, which is a combination that does not necessarily align with today's generation of youth.

Youths' physical activity patterns can increasingly be characterised as what modernity theorists describe as *individualisation*. In his thesis on late modern identity development, Giddens (1991) emphasised that identity has gone from being predetermined by social background to becoming a reflexive project, where one actively realises oneself through

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reflected choices of action. For Giddens, the body is an important identity marker in late modernity; it is a 'vehicle of the self' (Giddens, 1991, p. 60) and thus takes on symbolic significance for the expression of bodily attractiveness and self-identity. Modernisation and individualisation are thus important for young people's identity construction and exercise choices (Seippel, 2006a). Societal changes, such as cultural liberation, emphasise that the modern individual is more self-centred and less community-oriented than in the past. Adolescence in itself also involves increased detachment from adults.

How does sport fit in this picture? On the one hand, sport is structured in ways that might not be totally in tune with the wishes and needs of today's youth. Sport is largely carried out on the premises of the collective over the individual, where participants are required to adapt to a social community where activities take place in fixed places at fixed times and are adult-led. This structural rigidity of sport could lower its attractiveness and social significance and is often seen in relation to the last two decades' explosive membership growth of commercial fitness centres, which are more flexible and adaptive to their customers (Skauge & Seippel, 2022; Ulseth, 2003). To illustrate, in the 1960s, Norway had about 30 fitness centres; today, it has approximately 1,200 (Riseth, 2022). In 1992, the number of Norwegian teens using fitness centres on a weekly basis was 16% (Seippel, Strandbu, & Sletten, 2011); in 2019, the percentage was 40 (Bakken, 2019). At the same time, from the 1990s, the proportion of teenagers taking part in sports has steadily declined (Seippel, 2016). Moreover, the sex segregation and promotion of traditional gender scripts in sport could lower its social status because outside sport, 'youths in Norway are imparted official Norwegian gender values: that girls and boys have the same opportunities and can choose who they want to be and how they present themselves' (Rysst, 2020, p. 49).

On the other hand, there is much about sport that resonates and is in tune with Western cultural modernism of the times: *post-materialistic values* such as quality of life, self-expression and trustworthiness (Henn, Sloam, & Nunes, 2021; Inglehart, 1977, 1990) and *competition/seriousness* and *non-deviant behaviour* (Miller, Melnick, Barnes, Sabo, & Farrell, 2007; Sandberg & Skjælaaen, 2018). In addition, *bodily qualities* such as health, appearance and good looks continue to dominate the Western culture of our time (Coffey, 2021, 2022; Jarvie, 2017; Walseth & Tidslevold, 2020), which probably works in favour of the social status of sport. This mix of traditional structures and modern values makes it timely and interesting to study sport as a social status marker in today's generation of youth. The relationship between sport and social status is therefore the topic of Article 3.

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Another important tenet of sport for all, as highlighted by the NIF, is ensuring learning and that young people have positive experiences. A similar framing of sport is seen from the state, which sees sport as a sensible and constructive way for youth to spend their time that benefits not only the youth themselves but also society at large. The underlying expectation is that sport fosters citizenship (Bailey, 2007): robust, adaptable youth who thrive in sport and do well in other areas of life. I make a case of this aspect in Article 4, in which I examine the relationship between sport and school.

Chapter 3 | Theoretical approach

In this chapter, I present the central concepts and topics of the dissertation. First, I give a brief reflection on my approach to theory in this project. After that, I situate the research project within the historical and discursive parameters of relational sociology. Here, I carve out a synthesis of my ontological and epistemological positioning, which provides a framework through which I observe and theorise about sport as a social arena. Next, in chronological order, a clarification of the key theoretical concepts in each article follows. I first introduce the foundations of social network theory and social network mechanisms and outline the relevance of gender to social networks in sport (Article 1 and 2). This is followed by a presentation of the concept of social status (Article 3); finally, I describe the links between sport and school (Article 4).

My approach to theory

My focus in this dissertation is on social networks in organised youth sport. This manifests itself in slightly different ways: some analyses of specific social networks (in Article 1 and 2) and some analyses with the same idea – "the social" is important – but approached with slightly different terms and focus (in Article 3 and 4). In the phase of summarising the project and the articles as a whole, it has become increasingly clear to me that the project belongs under the umbrella of relational sociology.

Ontological and epistemological positioning: Interactions, relations and social networks

A compelling field of research that has inspired my thinking is *relational sociology* (RS). This perspective involves an ontological understanding of the social world as consisting of networks of social interactions and social relations of various types between actors who themselves are formed in those interactions (Crossley, 2010; Fuhse, 2015; Prandini, 2015). Although RS, as a subfield[2] in the field of sociology, is seen as a fresh and innovative way of thinking about the social world, it represents continuity more than anything; The study of relations and positions, as opposed to persons, is perhaps *the* defining feature of sociology. Marx (1978): 'Society does not consist of individuals, but expresses the sum of interrelations, the relations within which these individuals stand' (p. 247); Simmel (2009): society exists when '…a number of individuals enter into interaction. This interaction always arises on the

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[2] Here the term "field" denotes an area of mutual orientation in scientific and/or academic discourse (Bourdieu, 1975). As outlined by Fuhse (2020), any given scientific field is organised around certain formal and informal social practices that relate to each other, absorbing and drawing on ideas, arguments and discussions and referring to publications and scholars. Moreover, all scientific field are unique with a particular "thought style" that separates them from other scientific fields and from the outside world in general (Fleck, 1979).

basis of certain drives or for the sake of certain purposes' (p. 22); Mead (1934): 'the individual can enter as an object [to himself] only on the basis of social relations and interactions, only by means of his experiential transactions with other individuals in an organized social environment' (p. 225).

In a similar vein, Ribeiro, Silva, Duarte, Davids and Garganta (2017) describe sport teams as 'a microcosm of human societies, i.e. a group of individuals who develop cooperative interactions' (p. 2). This description of sport teams sheds light on a fundamental challenge in the social sciences: establishing the relationship between the individual and society. Traditionally, the two most salient ways of addressing this challenge have been through the lenses of individualism and holism. Individualism asserts that societies are to be explained from the 'properties, actions, and behaviour of individuals belonging to them' (Neck, 2021, pp. 349-350), while the worldview in holism (or collectivism) is based on the principle that the whole is 'greater than the sum of its parts' (Crossley, 2010, p. 7), 'and regards individuals as primarily or completely determined by the collective' (Neck, 2021, p. 350).

In contrast, in RS, the primary source of knowledge about the social world is founded on the interactions and relations of interdependency that bind people and society together. Thus, in the ontology of RS, the object of study is 'all these associations between interdependent human beings that usually are conceived as they would be external to us' (Prandini, 2015, p. 6). People's actions are always interactions and society is made up of structures of interconnection between people. In other words, the interdependence between actors, social relations and contexts are the cultural backbone of human life: The individual is 'social(ized)', and the social is interiorised by individuals; they are made by the same stuff, 'relationships' (Prandini, 2015, p. 3). This gives way to the assertion that social relationships between athletes generate further important social properties at the team level – social structures – which, like the relations they originate from, are irreducible to the athletes involved in them. I consider this a fruitful starting point for understanding sport as a social arena because it avoids reducing the social world of sport back to the athletes who compose it (individualism) or to an aggregated whole greater than the sum of its parts (holism) (Crossley, 2010).

Epistemologically, RS upholds that we can come to know and understand the social world by taking its relational components into question. Scientific knowledge, in this view, is a construction and exists in the relations producing it. I see this as a sound starting point for generating new knowledge about sport as a social arena. The social complexity in youth sport

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is difficult to grasp solely by focusing athletes alone or the structures they operate in; it is first when the social relations between athletes are added to the equation that we can begin to fully appreciate and study sport for what it really is. Yet, I am hesitant to reject an ontological and epistemological position more closely associated with objectivism. Even though relations are constructed, they can only be considered "real" in the sense of being part of a social reality that can be observed. Scientific knowledge can be considered relative because we can and have to test it against observable reality (Fuhse, 2015). I agree with Fuhse (2015), who claimed that these two positions do not contradict each other. I see scientific knowledge as relative and itself as much a social construction as the social reality it aims to grasp. In my role as a researcher, I have the responsibility of getting as close as possible to the processes of construction at play. This means carrying out research in which I make use of rigorous methods that allow theoretical expectations to be empirically contested.

This brings me to my second rationale for adopting a relational sociology perspective, which is how it might provide solutions to methodological problems in the social sciences. As McFarland, Diehl and Rawlings (2011) argue, there is a mismatch between sociological theory on one side and research methods as tools for empirical enquiry on the other. The first problem is that social theory tends to stress the importance of actors and social structures, whereas research methods tend to focus on variables (Abbott, 1988). The second problem is that when the spotlight actually is on actors, the primary focus is usually on people's internal and behavioural attributes (e.g. motives, personal characteristics and actions). The primary interest is in individual cognition and perception, with less attention given to how these factors – as a whole – form and help maintain a social system (Rohall, Milkie, & Lucas, 2021; Tajfel, 1979). Third, theory about social groups and social systems tends to centre attention on the systemic structures of interaction, while the significance of the face-to face interaction between the individuals that make up the social system is often downplayed. Indeed, in sport science, only scant attention has been paid to examining the interpersonal relationships between athletes within sport teams (Kim & Yim, 2017; Wäsche et al., 2017). It is apparent that a merger of these perspectives – who athletes are, their interpersonal relationships and the social structures in which they are embedded – is beneficial because it allows us to analyse how athletes influence and are influenced by team structures.

Social network analysis

I use social network theory in this dissertation because I focus on the social relationships between athletes within sport teams. As described previously in this chapter, this comes out most clearly in Articles 1 and 2, in which I use social network theories and methods to

examine the development and structural properties of social networks in sport. The network perspective is also very much present in Articles 3 and 4 by impliedly influencing my thinking with regard to the topics I address and in my theoretical and methodological approaches. Accordingly, an introduction to the network perspective is instructive.

**What is social network analysis?**

SNA is a set of theoretical, graphical and statistical methods specifically tailored to measure social relationships among actors in specific contexts and the structures these relationships create (Borgatti, Lopez-Kidwell, Scott, & Carrington, 2015; Scott, 2012). It is multidisciplinary, drawing on mathematics, sociology, anthropology and numerous other fields. The most renowned definition of a social network was set three decades ago by Wasserman and Faust (1994): 'A social network consists of a finite set or sets of actors and the relation or relations defined on them' (p. 20). Within organised sport teams, social relations between athletes form complex social networks that influence young athletes' social experiences. Moreover, by building self-confidence, social contacts, reciprocity, trust and recognition, these networks are widely regarded as conveying social capital (see for example Kay & Bradbury, 2009; Seippel, 2006b). Yet, to date, social networks in sport settings have often been studied in latent form and not measured directly. In contrast to indirect measures of "actors being social", SNA put social relations as the unit of analysis, thereby taking 'the metaphorical idea of interaction as forming a network of connections and gives this idea a more formal representation in order to model structures of social relations' (Scott, 2012, p. 1). This makes it possible to analyse complex social processes taking place in sport teams, such as grasping the structural complexity of social networks at group/team level, uncovering hidden relationships and visually presenting social relationships (Kim & Yim, 2017; Lusher, Robins, & Kremer, 2010).

The first SNA concepts were developed in the 1930s with Jacob Moreno's work on *sociograms*, which he used to measure interpersonal relations in small groups (Moreno, 1934). Interpersonal relations come off course in many forms, and to capture some of this diversity, we were inspired in Articles 1 and 2 by Mark Granovetter's (1973) typology of *strong* and *weak social relations*. Granovetter himself never proposed any clear operational measures of the two types of relations, but strong relations are usually conceived of as tight bonds built on intimacy, trust and commitment, while weak relationships are more casual and common among people who see each other as merely acquaintances (Tacon, 2019, pp. 890-891). Before the breakthrough of SNA, a limitation of quantitative survey-based research was that social relations were usually studied as individual attributes and measured using

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generalised questions, such as: 'Do you have someone you trust?' (strong relations) or 'Do you have acquaintances you can ask for favours?' (weak relations). In contrast, SNA emphasises context, meaning that the classification of social relations links strong and weak relations to specific places, activities and people (Small, 2017). Organised sport is a social arena marked by sporting activities and a set of actors (athletes) who take part in both sport-specific and more general social activities, ranging from everyday talk and interaction during training to more intimate situations, such as travelling and spending the night away in connection with matches and competitions. Networks of these interactions can be identified by asking stem questions that reflect common social situations occurring in youth sport: 'With which members of the group do you usually share [a] hotel room or sleep next to during away games or competitions?' (strong relations) and 'Who do you usually talk to during breaks in practice sessions?' (weak relations), followed by a list of the athletes in the team. Athletes then mark the names of those co-athletes with whom they have the indicated relation, leaving the others blank. Figure 1 displays a social network from one of the teams in my sample, showing whom athletes talk to during breaks in practice sessions.

Figure 1

A social network of social interaction between athletes during breaks in practice sessions
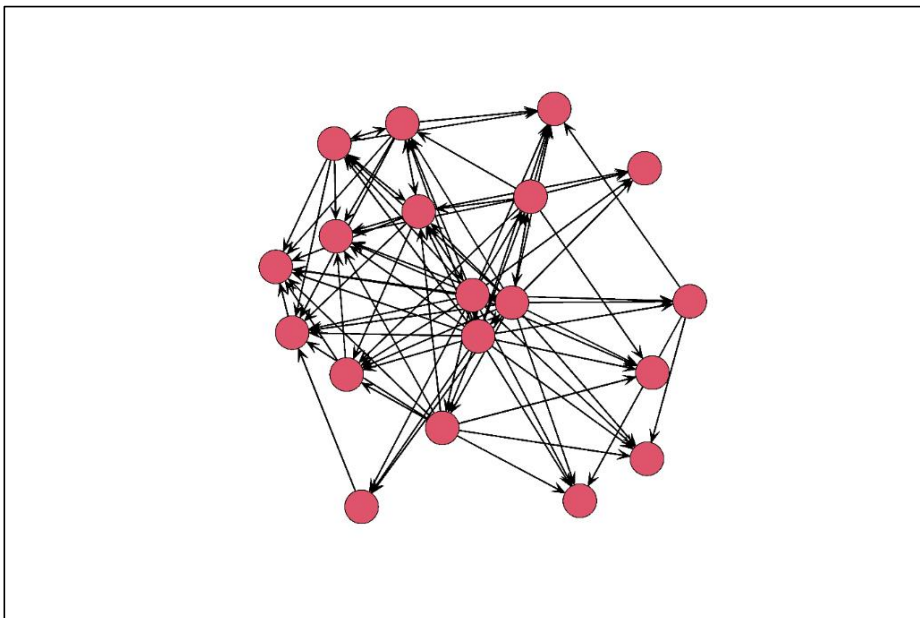
Athletes are displayed as red dots and the relations between them are black lines showing who athletes say they talk to during breaks in practice sessions. This visual representation of the network provides useful information on the overall structure of the network at the team level and on each athlete's individual position in the network. We see that there are numerous connections and that everyone has someone to talk to; no isolated and one cut off from interaction – in all, the network is structurally *dense* (Wasserman & Faust, 1994). A simple interpretation is that the team is tight knit and functions as a cohesive unit when it comes to informal communication during practice sessions.

Visual presentations, such as the one presented in Figure 1, provide useful descriptions of networks of relationships. SNA is, however, more than merely a data analysis method that counts social relations between actors; it also contains theories, methods and measures that allow for more progressed statistical analysis of social networks. I proceed by presenting the *social network mechanisms* and associated network metrics that I draw on in Articles 1 and 2.

Social network mechanisms and metrics

My procedure for conducting research in this project – both as a whole and in each of the four articles – reflects a three-step model (Merton, 1987). The first step is to establish the phenomenon under study: organised sport as a social arena. The next step is to flesh out a set of more precisely defined themes representative of this phenomenon and collect reliable observations: in Article 1: social network structures in sport; in Article 2: social network development in sport; in Article 3: sport as social status and in Article 4: the relationship between sport and school. Each of the themes in the four articles served the purpose of providing empirically derived input to the phenomenon under study. The third and final step is to explain the emergence of these themes and observations. In positivist philosophy and the natural sciences, this is done by following causal regularities (Hempel, 1965): if A occurs, B is always the outcome. However, in the social sciences, such stringent regularities are difficult, if not impossible, to identify (Giddens, 1984). A viable alternative is to use theories of social mechanisms associated with Hedström and Swedberg (1998). Hedström (2005) defined social mechanisms as 'a constellation of entities or activities that are linked to one another in such a way that they regularly bring about a particular type of outcome' (Hedström, 2005, p. 11). Social mechanisms help make sense of the nature of correlations between variables so that we can specify in detail how and why events occur (Hedström & Swedberg, 1996). In my project, theories of social mechanisms are useful to i) describe network structures: why social networks look the way they do, ii) determine how social networks in sport develop: where they come from and iii) understand social network consequences.

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Propensity and young athletes' innate drive for sociability

When asked why they participate in sport, young people often emphasise being social and nurturing/forming friendships (Bakken, 2021; Jakobsson & Lundvall, 2021; Light & Lémonie, 2010; Macphail, Gorely, & Kirk, 2003). In relational sociology, such motives for participation are attributed to people's *propensity* to be social (Emirbayer, 1997). Youths seek opportunities for social interactions, and sport offers regular socialisation centred on activities in which participants share an interest. While propensity for socialisation might be a fundamental human trait, people are nonetheless social to different extents, and this heterogeneity in actors' propensity influences network structures. For example, more active actors account for a disproportionate share of relations, creating clusters of activity in the network. The outcome of athletes' propensity is the number of social relations they have with their co-athletes, which are measured in Articles 1 and 2 with the network metric of *average degree* (the average number of social relations each athlete has with co-athletes in their team).

Sport in space and time: Contact theory

A second social network mechanism is *contact theory*, which states that for social relationships to form, people must have places to meet (Feld, 1981). As I emphasise in Article 2, sport is portrayed as offering good opportunities for participants to develop meaningful interpersonal connections with peers (Jones, 2001; Rundio, Dixon, & Heere, 2020). The competitive element inherent in sport promotes the importance of teamwork and making efforts towards a common goal – victory. Furthermore, on the grounds of providing social experiences of an elevated character that contrast with more everyday events, sport has been highlighted as an arena suitable for promoting social relations (Coakley, 2011; Csikszentmihalyi, 1990; Elcombe, 2012; Gumbrecht, 2006; Mandelbaum, 2004; Platchias, 2003). Contact theory furthermore highlights how the predictive nature of organised youth sport – involving formal leaders, schedules, competitions and constitutive rules, which are applicable to all and with more or less the same recurring participants (Sletten et al., 2015) – in itself can influence the development of social relationships. Moreover, in Article 2, I draw on contact theory to establish links between sport and other social arenas. At crux, the idea is that the social arenas in youth's daily lives are interconnected and that athletes attending the same school, being friends on social media or doing other leisure activities together could matter for their social relations within sport. This framework takes into account athletes' (and thus sport's) larger environment and directs attention to contextual influences on social relations in sport.

Influence and selection processes: Contagion and homophily
Contagion describes the processes of how information, emotions, material goods and other resources spread through social networks and impact human knowledge, beliefs and behaviours. In this way, contagion deals with the tendency for youth to become more similar to their peers over time (Borgatti et al., 2015), which likely reflects multiple underlying social processes, such as peer modelling, evaluative discourse and mutual agreement or interpersonal persuasion (Bronfenbrenner & Morris, 1998). Contagion may occur to varying degrees, depending on the nature of the different types of contexts and social networks under study. Sport is voluntary and a place to meet like-minded people, which we assume in Article 2 boosts contagion processes. In contrast, being socially exposed to each other at school, where attendance is mandatory, probably means that the effect of contagion in relation to social network formation in sport is lower.

While contagion is about social exposure, *homophily* describes a social selection effect of how people with similar characteristics, interests and experiences seek to interact and establish social relations with one another (McPherson, Smith-Lovin, & Cook, 2001). Both contagion and homophily are key theoretical pillars in Article 2, in which we examine how social networks in sport are influenced by young athletes' social interactions in other areas of life. Specifically, contagion implies that athletes who meet and socialise in social arenas other than sport will become more similar to each other and therefore should be more likely to bond in sport. Homophily describes two distinct social processes. First, athletes who feel similar to each other, regardless of whether they have met previously or not, should gravitate towards each other in social interaction in sport. Second, homophily suggests that athletes who have participated together in one or more social arenas outside sport should be prone to seek each other out in sport because they share similar non-sport social experiences that they can bond over.

Reciprocity
A further mechanism that has been theorised to be fundamental[3] to social interaction and the development and structure of social groups is *reciprocity*. It describes how actors tend to "choose" each other and reciprocate each other's relation/interaction or, in network terms, the likelihood of actors sending relations to those of whom they receive a relations/tie (Wasserman & Faust, 1994). A lower degree of reciprocity in a social network means that the network will be more hierarchical (asymmetric) (Freeman, 1978). In Article 1, reciprocity

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[3] For more exhaustive theoretical descriptions of reciprocity as a fundamental feature of the human condition, see Blau (1964) and Emerson (1976).

serves to assess the extent to which social networks in sport reflect traditional notions of gender differences in social interaction.

Clustering and transitivity
Clustering is another important social mechanism underlying tie formation in social network*s*. It describes the tendency of actors to form relations within social groups where those with whom one forms relations also form a relational connection with each other. The idea is that indirect connections between individuals – two initially unconnected actors who are connected to the same third party – tend to develop a social relationship (Block, 2015). One understanding of clustering is that if two people have a mutual acquaintance, it is more likely that they will get to know each other (Granovetter, 1973). A similar perspective is offered in balance theory, which postulates that people tend to look at the friends of their friends more positively than they otherwise would (Newcomb, 1961). In a dynamic situation, clustering will lead to two outcomes: if a person I am connected to likes somebody I do not like, I will either change my opinion about the friend-of-friend in a positive way or end my relationship with my friend. Hence, at crux, clustering is about trust: we trust those we have social relations with but are more sceptical of those we do not relate to. Clustering also influences the network structure by leading to the development of smaller tight-knit *subgroups* within the larger group (Borgatti, Everett, & Johnson, 2013, p. 156). Translated to sport teams, this means that subgroups impact the amount of social unity in a team (i.e. team cohesion) (Carron, Eys, & Burke, 2007).

Sport, social networks and gender[4]

On the grounds of its principal role for social organisation (Ridgeway & Smith-Lovin, 1996), gender constitutes a prominent factor when examining social relations in sport. Yet, in sport

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[4] A clarification of my usage of the terms "gender" and "sex" is needed. As explained by Kretchmar (2011), many in the social sciences use the word "gender" when discussing differences between males and females, and when they do, they purposely and implicitly refer to processes of social constructivism; that is, the idea that many differences between men and women are culturally created. This stand in contrast to the term "sex", which more often is used to imply that those differences are biologically conditioned. Most scholars in the social sciences – me included – agree that biology and society in most cases interact to shape human behaviour. I use the term "gender" throughout this project when I present and discuss social differences between boys and girls that I link to culture and hence see as a subject matter that is dynamic and could *change*. Today, sport is organised in ways that follow strict biological lines that stratify boys and girls in separate categories. From an analytical point of view, the use of the term "gender" can, in many cases, help highlight the importance of socialisation processes when trying to grasp and understand differences between women and men within this system, as the term can shed light on problematic aspects of the rigid division of athletes according to their biological sex by lifting these problematic aspects out of the reality in which they exist. This is important, as it could be argued that the case at hand – differences in boys' and girls' socialisation in sports and the consequences of these differences – often is either i) treated as natural differences between boys and girls (i.e. gender essentialism), ii) overlooked or iii) not taken seriously enough by sports organisations and in sport science.

sociology, we are quite far from understanding how gender actually works. Therefore, an important task in this project is to study differences in network structures between girls' and boys' sport teams. In the next paragraphs, I first account for conventional understandings of gender socialisation and then present organised sport from a gender perspective.

Conventional knowledge of gender socialisation
Children learn early on that there are different gender roles and expectations for males and females, and traditional gender scripts inscribe passive models of femininity against active/aggressive masculinity (Stockard, 1999). When teens reach their teenage years, the symbolic capacity necessary to internalise these gender norms is fully developed (Bussey & Bandura, 1999). This process of gender socialisation is assumed to be an underlying driver behind gender differences in ways of socialising, in which girls tend to seek out intimate and close relationships and invest more in their relationships than boys (Dindia & Allen, 1992; McDougall & Hymel, 2007). Accordingly, girls' social networks tend to be more closed and difficult to access than among boys. In contrast, boys' social lives are more transparent and characterised by hierarchical relationality with clear social rankings. They are typically portrayed as more laidback and as having less demanding social relationships, and a large body of studies shows that boys tend to have larger social networks and more friends than girls (Friebel, Lalanne, Richter, Schwardmann, & Seabright, 2021; Gest, Davidson, Rulison, Moody, & Welsh, 2007; Pattiselanno, Dijkstra, Steglich, Vollebergh, & Veenstra, 2015). Girls, on the other hand, because of their preferences for more intimate social relations, are more prone to form smaller groups within larger social systems (Cillessen & Borch, 2011; Urberg, Değirmencioğlu, Tolson, & Halliday-Scher, 1995). With reference to the social network mechanisms described previously, these gendered socialisation patterns suggest that girls have a lower social propensity than boys and are more prone to develop tight-knit subgroups within the larger social network.

The overall message conveyed in the literature is that gender norms are instrumental in shaping, guiding and constraining adolescent behaviour – the way teens interact and form social relationships (Leaper & Friedman, 2007). Importantly, youth's social interactions and daily activities are important contexts for the learning of gender, and research shows that some contexts are more prone to promote gender differences than others (Rogoff, 1990). Thus, gender needs to be thoroughly examined and accounted for when embarking on a study of the social world of sport.

Sport as a gendered social arena

As one of the last social arenas in which girls and boys are segregated by sex, sport inarguably has to be described as a gendered social arena. According to Messner (2011), sport is unique in its promotion of gender essentialist beliefs about categorical differences between males/boys and females/girls. This is most clearly seen in sex segregation practices, where boys and girls train and compete separately (Cooky & Messner, 2018). This segregation according to one's biological sex, in conjunction with the salience of the body and its associated ideologies that celebrate masculinity, positions sport as an important social site for the reproduction of gender-based expectations (Dworkin & Messner, 2002; English, 2017). For example, boys and girls have different outlooks when it comes to achieving competence and developing identities in sport (Connell, 2009), and a vast body of literature provides detailed accounts of how athletes are forced to actively adapt or distance themselves from given gender identities (Klomsten, Marsh, & Skaalvik, 2005; Koivula, 2001; Ross & Shinew, 2008). Gender stereotypes can also influence the type of sport practiced, membership in sport clubs and participation in competitions (Mateo-Orcajada et al., 2021). Furthermore, the separation of athletes according to sex is seen as nurturing hegemonic gender cultures, where masculine values are framed to represent competition, aggressiveness and winning at all costs, risk taking, physical strength and skills, while femininities are linked to antonymic values and behaviours such as cooperation, vulnerability and sensitivity (Messner, 1990, 2011). Taken together, it seems clear that gender permeates more or less all social facets of sport. From this perspective, sport represents a societal and cultural arena in which the social construction of femininity and masculinity influences girls' and boys' social relations.

Although traditional ideas of gender seemingly has a strong foothold in sport, there are signs that this situation could be subject to change. For example, we are currently witnessing more equal participation between the sexes and more mixed-gender competitions, and there are strong voices that are critical of traditional gender ideologies in sport (Jeanes et al., 2021). This could pave the way for new gender expressions, which points to a knowledge gap in sport sociology that needs filling: Even if sport might have become more gender equal and a more critical spotlight is directed at traditional gender ideologies in sport, we know little about whether girls' and boys' social relations in sport reflect the increased participation of girls and current discourses about gender and sport (Cooky, 2018): 'Although more women are present in sport, little is known about the ways through which gender relations may be shifting within community-level, club-based sport as a result of this' (Jeanes et al., 2021, p.

546). In Article 1, I answer this call by examining gender differences in social networks in sport.

The social significance of sport

The third aspect that I seek to grasp in this dissertation is the social significance of youth sport. This is usually assessed by asking athletes about their motives for participation. The approach, rooted in sport psychology, shows that young people have clear intentions with their participation, such as making and nurturing friendships, competing, maintaining fitness and being part of a team (Fredricks & Eccles, 2005; Guedes & Netto, 2013; Light & Lémonie, 2010; Moradi, Bahrami, & Dana, 2020; Seippel, 2006a; Weiss & Petlichoff, 1989; Wold & Kannas, 1993). This research tradition is concerned with the degree to which human behaviour is self-motivated and self-determined. From this perspective, motives are understood as personal goals that represent the driving force behind sport participation; they come from within and represent *goal-directed action* expressed through sport activities (Nicholls, 1984).

The problem of methodological individualism

The abovementioned procedure of assessing the social significance of sport follows, in large part, the ontological and epistemological trajectories of *methodological individualism*. It presupposes that the individual (and its individual properties, i.e. behaviours and attitudes) is 'a stable bedrock underlying and explaining interaction' (Crossley, 2010, p. 15) and thus should be the focal point of analysis. While I agree that athletes' motivation is important for participation and acknowledge that this research tradition has produced several nuanced and sophisticated concepts that have proven to be both interesting and scientifically valuable,[5] I am nonetheless sceptical about evaluating the social significance of sport based on individuals' taxation of their stated reasons and degree of inner motivation to take part in sport. The way I see it, the underlying query – whether, why and the extent to which youth cares about sport – is de facto a group phenomenon of a social character and should be treated as such.

The first problem is the common routine of treating inner motives as individual properties. Understanding sport participation from this individualistic point of reference implies that participation is the product of some kind of private contemplation. However, as Crossley (2010, p. 3) highlights with reference to Mead (1967), this would be a logical fallacy

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[5] Good examples are the psychological theories of social determination theory (SDT) (see R. M. Ryan & Deci, 2000) and achievement goal theory (AGT) (Senko, Hulleman, & Harackiewicz, 2011).

because private contemplations (which sport motives undoubtedly are) presuppose the acquisition of certain conversational capabilities that are only available to us through social interaction with others. This entails that what we know as private motives for action comes after simulated social interactions that stem from being socially exposed to other people in real life. To illustrate, when young people say they participate in sport to be with friends, this motive for participation stems from an anticipation of meeting and socialising with peers. The way I see it, this anticipation, in turn, most likely originates from former social experiences with peers from their social circles.

My second inference is that motives for sport participation – such as wanting to be with friends, competing or improving looks – all contain, at their core, a social element that reflects the fundamental truism that humans are inherently social and at all times actors-in-relation embedded in social networks with other human beings (Emirbayer, 1997); one cannot meet friends without a want to meet and socialise with other people, one cannot compete without being in relation to a competitor(s) and we want to look better because we feel like others will perceive us better. The point I am trying to bring across is that what we tend to think of as individual human behaviour quite often is done in relation to those around us. That is, much of what we do has a component of social status attached to it (Battilana, 2006; Bourdieu, 1990; Ridgeway, 2019; Weber, 1946).

Sport as social status
Echoing Weber (1946), Ridgeway (2019) defines status as 'a comparative social ranking of people, groups, or objects in terms of the social esteem, honour, and respect accorded to them' (p. 1). The way social status works is that people seek recognition from significant others, and being recognised for *doing* or *being* something makes people feel valued and worthy. Previous research indicates that for developmental reasons, adolescents are more concerned about their positioning in social hierarchies than are children or adults, particularly as the importance of peers becomes more salient (Andrews, Ahmed, & Blakemore, 2021; Yurgelun-Todd, 2007). They are attentive to how others view them and put a lot of effort into fitting in (Bagwell & Schmidt, 2013; Goffman, 1959). Given all of this, it is not surprising that young people care greatly about their social status among their peers (Adler & Adler, 1998; Cotterell, 2013; Ridgeway, 2019).

In Article 3, we state that status captures four dimensions of young people's social lives in sport that can inform us of the social significance of sport (Frank, 2020; Honneth, 1995; Renger & Simon, 2011; Ridgeway, 2019). First, because status is attributed to recognition from significant others, it informs athletes about what is considered important in

the team. Second, because social status is ascribed, it defines power and positions in social systems and reflects the roles and social positions to be filled. The role is the functional aspect of status, that is, the manner in which a person carries out the requirements of his position (Lang, 1956). Since a role is a set of expectations, it implies that one role cannot be defined without referring to another. Status is thus always relative to others and assigned through a process of comparing and ranking individuals on valued attributes and capacities that enable the actor to contribute to group goal(s) (Ridgeway, 2019, p. 27). Actors who can display skills and abilities towards significant co-members will be seen as competent and valuable to the group, thus earning social status. A key characteristic of sport is competition, which makes sporting abilities a central ranking attribute that is important for athletes' social standing and place in the social hierarchy. Athletes constantly monitor and make judgments on each other's sport performances, and previous research has shown that young people cite sport performance levels as a principal determinant for social acceptance in one's peer group (Lindstrom & Lease, 2005) and that young athletes who score high in actual and perceived physical competence also score high in actual and perceived peer acceptance and popularity (Weiss & Duncan, 1992). Third, status could influence the degree to which sport teams function as a cohesive unit where team members "pull in the same direction": When athletes know, accept and live up to the social position assigned to them in the team, status could contribute to each members' willingness to participate and help the group (Carron et al., 2007; Chan, To, & Chan, 2006). Fourth, by placing members in different social positions in the social hierarchy, status can help smooth social interaction and reduce conflicts (Goffman, 1959; Tavory & Fine, 2020). Overall, it seems clear that social status could matter for social interaction, individual experiences and social structures in sport.

The social consequences of sport participation

The fourth aspect of this project is the consequences of social relations in sport in relation to school. For this task, there are many topics to choose from. I have chosen to focus on school because i) it is a highly valued and important meeting place in which young people interact with peers and ii) success in grades and motivation for higher education is imperative for later career success.

Like school, sport is an important meeting place for Norwegian youth, aptly described by Johansen and Green (2019) as a 'way of life' (p. 2), a position supported by both the Norwegian government (St.meld. nr 26., 2012) and parents (Strandbu, Bakken, & Stefansen, 2020). Due to the social nature of sport club participation, sport is assumed to be an energiser for the social development of youth and for generating social capital – trust and civic

engagement – that can strengthen social cohesion in local communities (Putnam, 2016; Seippel, 2006b). Trusted with these assumed gains for participants and spillover effects beyond the borders of sport, it is becoming increasingly more common for sport clubs to be involved in the services delivered by public services (Ibsen & Levinsen, 2019; Støckel, Strandbu, Solenes, Jørgensen, & Fransson, 2010; Waardenburg & Nagel, 2019). This strength, support and social responsibility ascribed to organised youth sport begs questions about how sport might have social repercussions beyond the borders of sport and into the educational system.

Previous research on the relationship between organised sport and school
Only recently has the relationship between sport and school been examined in Norway using quantitative methods. Overall, the studies conducted show a positive (yet not very strong) correlation with academic achievements (Mehus, 2016; Skauge & Hjelseth, 2021; Sletten et al., 2015; Stea & Torstveit, 2014). Review studies of international research reveal similar findings (Bohnert, Fredricks, & Randall, 2010; Owen et al., 2022; Wassenaar et al., 2020).

The fact that participation in sport seems positively associated with academic performance should be due to its ability to support athletes' performances in the educational system. To explain this positive relationship, international research has focused mostly on the effects of physical activity acquired through sport (Bailey, 2017; Coalter, 2007). However, as shown by Coalter (2007, pp. 101-102), several researchers have criticised this view and argued that although physical activity may positively be correlated with school outcomes, social interactions are probably at least as important (see for example Biddle, Gorely, & Stensel, 2004; Sonstroem & Morgan, 1989). For example, sport is widely regarded as providing opportunities to make friends, expand one's personal social network, achieve personal growth and development and reduce social isolation (Putnam, 2016). Moreover, sport is a performance domain, and delivering good sport performances is considered important for building character, task persistence and work ethic, as well as teaching the value of teamwork, goal setting and a sense of mastery (A. L. Smith, 2007; Støckel et al., 2010). These "socialising" or "character-building" effects of sport participation are in turn assumed to improve academic outcomes (Bradley & Conway, 2016; Bruner et al., 2017).

Most of the Norwegian research on the relationship between sport and school is rooted in sociology and has approached the topic with social lenses. In what probably spurs out from a desire to produce generalisable findings, these studies have used large samples to compare school outcomes between athletes and non-athletes (who otherwise share characteristics such as age, gender, social class and so on) (see for example Mehus, 2016; Skauge & Hjelseth,

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2021; Sletten et al., 2015). Arguably, this monolithic analytical approach to organised sport is problematic when it comes to explaining why sport should matter for school outcomes. In itself, the "athlete" category is limited in its ability to reflect that both sport and school are social and achievement domains and that athletes' social experiences in sport can vary along these lines in relation to school. Hence, in Article 4, I focus on athletes' enjoyment and sport performance levels as explanatory factors for the associations between sport and school.

Sport enjoyment

The concept of enjoyment helps us understand and explain the social experiences of sport participants (Kimiecik & Harris, 1996) and is important in school for academic achievements (Cadman et al., 2021; Morris, Dorling, Davies, & Davey Smith, 2021). In this project, enjoyment is defined as 'a positive affective response to the sport experience that reflects generalised feelings such as pleasure, liking, and fun' (Scanlan, Carpenter, Simons, Schmidt, & Keeler, 1993, p. 6).

In its purest and original form, sport is based on enjoyment; it is a place where athletes can come together and express themselves freely in spontaneous, voluntary and playful activities, cut off from everyday life (Huizinga, 1949). On the face of it, moments of enjoyment in sport – scoring a goal, celebrating a win and so on – might seem trivial, confined to the moment and the place where they occur, only to be replaced by the regularity of life after its passing. However, there is more to it. Research has shown that enjoyment gives sport meaning (Thedin Jakobsson, 2014) and positively influences well-being (Jetzke & Mutz, 2020), feelings of social belonging and sport participation motivation (Carpenter, Scanlan, Simons, & Lobel, 1993; Hall, Newland, Newton, Podlog, & Baucom, 2017; Weiss, Kimmel, & Smith, 2001).

Given how I ontologically lean into relational sociology, I see these effects as antecedents stemming from social affect and social relations with likeminded co-athletes. Through sport, young people have the opportunity to develop friendships with peers who share similar interests, and previous research has shown that young people who are friends in sport tend to be friends in school as well (Schaefer et al., 2011). These friendships can be important for academic outcomes. For example, by encouraging us to try harder and not give up, friends can influence school engagement, decisions to do homework and academic performances (Bailey, 2017; A. M. Ryan & Ladd, 2012; Wang & Eccles, 2012; Wentzel, Jablansky, & Scalise, 2018; Witkow & Fuligni, 2010).

Sport is obviously not always enjoyable, and a large body of research identifies negative experiences that may dampen the pleasure and fun of sport, such as destructive peer

influences, parental pressures, a lack of playing time, the social pressure of living up to sport performance expectations, alcohol consumption and burnout (Fraser-Thomas & Côté, 2009). Enjoyment in sport can also be influenced by ups and downs that happen outside of sport, for example, partners, family, sickness, new interests or the stress of having to balance and school careers. In summary and when transferred to my project, I use the term enjoyment broadly to encapsulate athletes' social satisfaction – as observed and expressed within the borders of sport but also reflective of their satisfaction with life in general.

Sport performances

Performance is a key element in competitive sport that is probably important for social experiences and social relations. What constitutes good sport performances is, in large part, determined relationally from feedback from co-athletes and significant others (coaches, spectators and parents) and performance comparisons of co-athletes (how well co-athletes perform).[6] There is empirical evidence that good sport performance is associated with increased social status (J. C. Dunn, Dunn, & Bayduza, 2007; McCraw & Tolbert, 1953), and given the value of sport in the general peer community, being good at sport might have further spillover effects of increasing athletes' social standing in school as well. This, in turn, has been suggested to enhance academic performance by giving access to membership in the elite group and acceptance of an orientation towards academic success (Snyder, 1985; Spady, 1970). This can, of course, also work the other way around; if school is status laden, performing well and attaining status in school can serve as a motivating factor to develop one's sport performances to achieve social status through sport, too. These ideas find support in a recent meta-analysis by Wentzel, Jablansky, and Scalise (2021), who examined the links between peer social acceptance and academic achievement. Based on 72 studies that yielded 157 effect sizes, they found that peer social acceptance was positively associated with academic achievement. Furthermore, there is evidence that students who participate in sport also receive more attention and encouragement from teachers (Spreitzer & Pugh, 1973). There is reason to assume that this favours the most successful athletes the most, as teachers often have a good overview of students' status systems in the school/classroom. Moreover, it has been suggested that being exposed to performance-oriented peers in sport might generate and boost interest in school and education (Hanks & Eckland, 1976). Finally, performing well in

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[6] Personal criteria (e.g. improvement over time) and objective measures (e.g. win–loss ratios and points scored) are obviously also important determinants of sport performance but have not been measured in this project.

sport is assumed to build character and self-confidence, which are considered useful in school (Bradley & Conway, 2016; Bruner et al., 2017).

Time and attention as moderating factors

The overall picture is that enjoying and performing well in sport is favourable for school outcomes. However, this image of sport in relation to school stands in stark contrast to that offered by American sociologist James Coleman. In his classic *The Adolescent Society* (1961), Coleman expressed scepticism towards sport, claiming that it reflected independent adolescent culture and values in opposition to adult society. He developed a zero-sum theory on the relationship between sport and school, where spending too much time on sport is presented as a potential threat to academic achievements. The model has later been expanded to include *engagement*, meaning that school also competes with sport for young people's attention (Marsh, 1992). From this viewpoint, commitment to sport – which often goes hand in hand with the development of better sport performances – may steer attention away from school and education (Casper & Andrew, 2008).

There is some support in previous research for these ideas on the relation between sport and school. For example, Miller, Melnick, Barnes, Farrell, and Sabo (2005) examined the relationship between sport identities and self-reported academic outcomes among 600 US adolescents and found that self-defined female "jocks" (meaning that they strongly identify with sport) achieved lower grades than female non-jocks. Although no differences in academic achievement were found between non-sporting males and "jock" males, the authors, based on their findings, warned about the dangers of overidentifying with sport. Previous studies also show that perfectionistic concerns (i.e. the degree to which athletes expect their own or others' sport performances to be perfect) and performance-based self-esteem are associated with burnout (Gustafsson, DeFreese, & Madigan, 2017; Gustafsson, Martinent, Isoard-Gautheur, Hassmén, & Guillet-Descas, 2018; Olsson, Madigan, Hill, & Grugan, 2022). Burnout is a state of work-related emotional and physical exhaustion that is often accompanied by sleep complaints, all of which are factors associated with poorer academic achievements and weaker school engagement in adolescents (Fiorilli, De Stasio, Di Chiacchio, Pepe, & Salmela-Aro, 2017; Mehta, 2022).

As a final note in my theoretical presentation of the relationship between sport and education, I would like to point out that while researchers often have assumed a causal direction between sport participation and school outcomes, I do not seek to establish "sport effects". Rather, my emphasis is more on the corresponding logics of sport and school, which

I approach as a bidirectional relationship where positive social experiences (or not) and success (or not) in one arena may spill over into the other.

Chapter 4 | Methodology

I strongly believe that the fundamental principles of scientific documentation should be openness and transparency. Many of the decisions I have made with regards to methods took place after the project had started. In this chapter, I hope to be true to my beliefs and document the various stages of my research, reflecting on the many decisions and paths that have taken place in this project and making it what it is.

As a teacher at the Norwegian School of Sport Sciences (NSSS), students often approach me with questions regarding methodology and want to learn about ontology and epistemology. Quite often, however, in their finished works they tend not to reflect much about their scientific positioning or give detailed descriptions of how they carried out their research. This is as expected because while the end product in research is presented in a way that accommodates standards in science in general and formal expectations within a scientific branch or journal, actually *thinking about and doing science* does not follow a clear-cut formula. One of my great discoveries as a PhD candidate has been how the process of doing science tends to reflect the complex and quite often unpredictable nature of the world in which we live. When I started my PhD, I penned down a detailed research plan and timetable to guide the research. However, when I look back on my research process, I find merit in Smith and Waddington's (2013) description of the 'messy' character of research (p. 6). Early in the project, I came to the realisation that the social world of sport was not as clearly defined as my preparations would have me to believe. Interesting and surprising discoveries led me and the project to new and unexpected places so that the dissertation ended up very differently than I first imagined. Moreover, factors such as lack of experience with the theories and methods I ended up using, fortunate events, resources and available time have influenced the choices made and the pathways that I have followed.

This chapter is structured as follows: first, I account for the research design and data collection procedure: how I contacted participants, how I designed the questionnaires and how I carried out the data collection. Next, I describe the final sample. I devote the last section of the chapter to discussing the pertinent limitations of the chosen methods and measures.

Research design

Participants in grassroots youth sport in their mid- to late teens were chosen as the empirical focus, and for two main reasons. First, they comprise a large membership group in the NIF. Second, social relations with peers in sport are understudied in sport research compared to relations with adult social agents, such as parents and coaches (see for example Atkins,

Johnson, Force, & Petrie, 2013; J. G. Dunn, Gotwals, Dunn, & Lizmore, 2022; Stefansen, Smette, & Strandbu, 2018; Strandbu, Stefansen, Smette, & Sandvik, 2019). This is despite the fact that young people of this age rely less on parents and more on peers as a source of competence information and companionship in sport.

I collected data using a survey methodology. This allows for the collection of data from multiple teams and can thus help capture differences in social relations and networks between teams of different characteristics. Moreover, surveys are the most common way to collect data in network research because the method provides rich analytical options and can help ensure good data quality (Lusher et al., 2010).

For the sample to which the survey was to be distributed, the following parameters were set: i) teams had to be a part of the NIF-umbrella, ii) consist of athletes in the age segment of 16 years or older, iii) focus would be on both team and individual sport and iv) at the starting point for my data collection teams was to be recruited from different regions of the country and be evenly distributed with regard to the abovementioned criteria. This approach was anticipated to provide empirical data where I could ask research questions and pursue trials of enquiry that responded to the overall research objective in different ways. The data collection was set to take place over the course of one sport season, which, for most teams, follows the school calendar. This means that the data collection was planned to start in August 2016 and end in June 2017. Figure 2 shows the different stages of the project.

Figure 2

Flowchart of the phases of the project

Initial phase

- Defining the overall purpose of the project.
- Questionnaire development.
- Questionnaire testing.
- Approval by the Norwegian Social Science Data Service.
- Programming the survey.

Data collection phase

- Recruitment of study parti- pants. Initial sample: 510 participants from 30 teams.
- Data collection: travelling to clubs and collecting survey data using portable Ipads.
- Net sample: 387 participants from 30 teams.

Data analysis phase

- Descriptive analyses and ERGM-analyses of social networks in sport. Aim: Article 1/RQ1 and Article 2/RQ2.
- Multilevel regression analyses and OLS-analyses. Aim: Article 3/RQ3 and Article 4/RQ4.

Results and dissemination phase

- Article 1: Social networks gender in organized youth sports.
- Article 2: Friends in sports: Social Networks in Leisure, School and Social Media.
- Article 3: Social status and sport: A study of young Norwegians
- Article 4: Organised Sports and School: Conflicting or Mutually Supportive Arenas? The Significance of Sporting Experiences

Merger and summary of the project

- Doctoral dissertation: Social relations in organized youth sports: Networks, gender, status, friends and education

Constructing the questionnaire

In the following sections, I describe the format, content, structure and pilot testing of the questionnaire. Apart from the measures of social networks, the majority of the included measures in the survey are based upon measures in the UNGDATA-survey[7] and from existing measures in sport research. Details of the measures and operationalisations are found in the methods sections of each article. The complete questionnaire is found in the appendix.

Format

I created the questionnaire electronically using SurveyXact (www.surveyxact.no), for which the NSSS had a handling agreement. The survey was prepared so that it could be imported into tablets and/or be sent by email.

Structure and question order

The survey was self-administered and divided into three parts. To provoke interest, the first part of the survey contained questions about the respondents' attitudes and behaviours in organised sport (i.e. reasons to participate, degree of belonging, experience and participation rates).

The second part of the questionnaire was devoted to social network questions. Answering social network questions is repetitive and time-consuming (Marsden, 2011), and a central concern was that the respondents' answers would suffer if the questionnaire took too long to fill out. I therefore chose to present all network questions as *question-wise* blocks that ask a given network question about the entire set of possible alters (i.e. the fixed list of team members) before repeating the process with the next network question. This question format has proven to be less cognitively demanding and less time-consuming than other common ways of asking network questions in questionnaires (Pustejovsky & Spillane, 2009; Vehovar, Lozar Manfreda, Koren, & Hlebec, 2008). To save further time, these network questions were presented as drop-down menus with team members' names listed in a fixed order (i.e. the order of team members' names was the same in all questions). Although time-saving, a drawback of fixed-name orders is that respondents tend to select names at the top more often than those further down the list (Krosnick, 1999). For example, Galesic, Tourangeau, Couper, and Conrad (2008) eye-tracked respondents filling out an electronic questionnaire and found that regardless of content, the respondents spent more time looking at the first few response options in a list of response options than those at the end of a list. Fortunately, the number of

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[7] Ungdata is a repeated nationally representative cross-sectional study of adolescents in Norway. For more on the Ungdata-survey, see https://www.ungdata.no/english/

athletes in most of the teams in my selection was low, which resulted in short lists. Hence, I assumed that it would be fairly easy for the respondents to find the altars they were looking for, even if they were located in the lower part of the lists. Finally, the third and last section of the questionnaire was reserved for questions on the respondents' social backgrounds (age, gender, SES and academic performance).

Pilot and testing

In the development phase, the questionnaire was tested on three sets of people: i) colleagues who have relevant expertise, ii) in one of the classes I taught at NSSS and iiii) on three athletes in the targeted age group whom I recruited through my personal network. In the last group, one person participated in football, the second in handball and soccer and the third participated in biathlon. For all three groups, the testing took place by having them fill in the form, and then we discussed the questionnaire (in plenary for the first two groups and as one-on-one conversations with the people in the last test group). They gave feedback on which questions they asked should be included or excluded, order of questions, the degree to which answer options match the questions and linguistic formulations (especially with regards to translated measures from English to Norwegian). Based on the answers, I adjusted the form before starting a new test round. In total, I ran three test rounds: the first with colleagues, students and one of the athletes, while the last two test rounds with all three athletes agreed to test the questionnaire. I made sure to monitor time usage during testing, as long survey lengths should be avoided to make sure people answered honestly and were able to stay focused, as well as not drop out (Fink, 2009).

What ended up as the finished edition of the survey took about 20 minutes to complete, which I considered acceptable. Nonetheless, I was still concerned whether the respondents – after a vigorous training session – would be physically and/or mentally exhausted to the point where completing a survey of this length would be difficult. There was also a practical concern that parents would be waiting to pick them up and become restless. In the worst case, I could lose my research subjects. To minimise the risk of these stressors harming the quality of the collected data, I made sure the coach set aside time, finished the training session a little earlier than normal and communicated to the respondents when the data collection was starting. At this point I took over communication with the respondents by thanking them for their participation and handing out the tablets with the surveys. After that, I stayed in the background, ready to answer questions or comments from the respondents.

Incentives

It was important to obtain a high response rate to ensure good data quality. Incentives can increase response rates (Jia, Furuya-Kanamori, Qin, Jia, & Xu, 2020; Singer & Ye, 2013), so respondents who completed the entire survey were included in the draw of three gift certificates of 1,000 NOK (which at the time amounted to approx. €100). Three winners were drawn and received gift cards by mail after data collection was completed in August 2017.

Sample

As previously mentioned, over 90 percent of Norwegian youth participate in sport at some point (Bakken, 2019). These young people, who have different characteristics and social backgrounds, participate under the NIF umbrella in different activities and belong to teams with specific structural characteristics and social cultures. It is natural to assume that young people have different social experiences in sport, so I have collected data from athletes and teams with different characteristics. To give the sample maximum coverage of the geographic locations of teams, I aimed to collect data from as many of Norway's 19 (now 15) counties as time and travel expenses would allow. Next, because of my focus on gender, I aimed to establish a database that was balanced in terms of athletes' gender and would consist of three categories of teams: boys, girls and mixed-gender teams.

A second consideration is that young people's social experiences in sport have been suggested to differ between individual and team sport (Evans et al., 2017). Comparisons are often attributed to task interdependence where the underlying rationale is that participating in team sport is more social than individual sport because interaction between team members in competitions is a necessity in team sport but not necessarily in individual sport (Evans et al., 2017; Evans, Eys, & Bruner, 2012). In team sport participation, athletes compete in shared efforts to beat opponents, which can lead to a sense of camaraderie and care for each other. Individual sport is different from team sport in the sense that athletes have to rely on themselves when it comes to delivering sport performances in competitions. Apart from that, the social aspects are more or less the same as in team sport; it is athletes who belong to a team, where they train together, travel together, support each other and quite often share a social life outside sport (Evans et al., 2012; Munroe, Estabrooks, Dennis, & Carron, 1999). To control for potential differences in social relations in team and individual sport, both types of teams are present in the sample. Teams were selected from what ranked by membership numbers as the three largest sports in Norway: football, handball and (cross-country and biathlon) skiing (NIF, 2017, p. 71). Football and handball, the two most popular sports in Norway, are traditional team sports. Skiing (cross-country and biathlon), the third largest

sport in Norway, would be considered an individual sport within the team vs. individual sport-taxonomy (Evans et al., 2012) as skiers, apart from relays, compete individually.

A third factor that has been shown to matter for sociability is team size (Argyle, 1973; Mueller, 2012; Thomas & Fink, 1963). Building social relationships requires effort, so even though one might have larger individual preferences for social relations in larger teams, at a certain point, it can become overly costly to develop relations with every other team member (Mueller, 2012). I did not target teams of specific sizes over the course of the data collection but instead assumed that I would achieve acceptable diversity with regard to team size since I planned to collect data in teams from different sport types located in both small and large communities.

Research process

In this section, I describe the organisation and execution of the data collection. I start by describing the recruitment process and then I recount how the data collection unfolded.

Recruitment

After designing the research and ensuring that it met the requirements of the Norwegian Centre for Research Data (NSD), I started recruiting participants using convenient snowball sampling. As a former participant and through various jobs within the sport sector, I know many people who work as coaches in local sport clubs. Therefore, I started the process by contacting persons from my social network whom I figured could be interested in participating in the project, usually by phone or in private social gatherings. The majority of the coaches I contacted were positive about the research project and welcomed me to practice sessions, matches and social gatherings, where I could come and collect data. I always asked coaches whether they knew others I could approach and got a list of 2–3 names. If the groups matched the sample criteria, I contacted the proposed coach by telephone, where I presented the project and asked whether they would like to participate in the project. Although most of the coaches I contacted were positive towards the project, recruitment of respondents from the ski and biathlon teams proved difficult because of the age range of the team members. Ski and biathlon teams do not have strictly defined age groups: 17-year-olds can train together with 14-year-olds; this is rarer in team sports, such as football and handball. NSD only permitted me to recruit individuals aged 16 and above, which meant that I had to do some research to find ski and biathlon teams that met this criterion.

After initial contact, typically by phone, I explained the purpose of the project. Afterwards, I sent the coaches an email with a comprehensive description outlining the

project's purpose, detailed data collection procedures, that participation was optional and that interested athletes could withdraw from the project at any time with all records of their participation then would be deleted. The coaches were instructed to share this information with their athletes. After that, the coaches sent me a list containing the names and email addresses of the athletes who wanted to participate in the project. I then sent out an email to the coaches and athletes restating the purpose of the project, along with details regarding the date, time and location of the data collection and a statement that participation was voluntary and that those consenting to take part could withdraw from the data collection at any time.

Data collection process

The next step was to visit the teams and carry out the data collection, which usually took place in the context of practice sessions or social gatherings where respondents filled out the questionnaire electronically on digital tablets. On the first page of the questionnaire, I reiterated that they would be considered to have consented to participate if they moved forward and started answering the questions, with an assurance that respondents were free to stop answering questions or withdraw from the study at any time.

Collecting survey data on-site with tables requires more resources (most notably in the form of time, travelling and travel expenses) than collecting data remotely by email. However, on-site data collection tends to give better response rates (Hassler, Pearce, & Serfass, 2018) and since missing data can impact structural properties of social networks (Kossinets, 2006), I considered it important to be on-site and meet with coaches and the respondents in the hope that it would increase the response rate. Naturally, being present also made it possible for the respondents to ask me questions related to the completion of the survey.

A major benefit of using portable tablets was that I could visit teams when and where it suited them best. For example, I conducted most of the data collection on the ski teams when the athletes in a team came together to train on weekends. I travelled to the hotel where they stayed and met the athletes who filled out the electronic questionnaire at designated places (e.g. the lobby or the hotels' meeting room) in between training sessions. In this way, the disturbance of my presence in the teams' routines was held at a minimum. A second benefit of using tablets is that they simplify the presentation of the survey (Marsden, 2011).

Naturally, as everyday life will have it, not all athletes who had consented to participate in the study were present at the time of my visit. The most common reasons for being absent were illness, schoolwork or that the athlete had quit the team. Some may have

also chosen not to show up because, upon reflection, they did not want to take part in the project (I will return to this later).

I sent a reminder of the survey by email the next day to the respondents who were absent at the arranged times and then waited a week to see if they filled out the survey. If the week passed and the survey was not yet answered, I sent a new email reminder. I listed responses as missing if three reminders were sent without the survey being answered.

I began collecting data in August 2016 with the start-up of a new school and a new sport season. A central concern of the data collection was related to its duration, resource use and data quality. I aimed to achieve geographical diversity in the sample and visited teams located in counties across the country. I also needed the sample to be large enough to fulfil statistical recommendations and give interpretable results. Thus, I had to pay attention to time use and travel expenses. Initially, the plan was to collect data from 40 teams over the course of a sport season, which typically ends in June. However, due to various circumstances (i.e. illness, last-minute cancellations from teams and challenges in recruiting teams that fit the set criteria), when the sport season ended in June 2017 and summer holidays started, my sample consisted of 30 teams. When completing a PhD, time is a scarce resource that needs to be used effectively. Hence, I tested the quality of the empirical data at this point and concluded that the sample in the database was sufficiently large enough for me to move on to the next step. In the end, a total of 510 respondents consented to participate in the study. Of these, 387 athletes (56% boys and 46% girls) completed the survey, which gave a response rate of 74%. The average age of the respondents was 17.11 years (SD = 1.52). At the team level, the final sample consisted of 8 ski teams, 11 football teams and 11 handball teams from 8 out of 19 (now 15) Norwegian counties, with an average team size of 12.90 (min 6, max 20, SD = 3.40) and a response rate ranging from 37–100%. When it came to gender, 11 teams were boys only, 11 were girls only and there were 8 mixed-gender ski teams. Descriptions of each of the 30 teams are presented in Table 1.

Table 1

Description of team size, type of sport, gender composition, age, response rate, consents and non-consents in the teams in the sample

Team	Sport	Gender	Age	SD (Age)	Consents	Response rate (%)	Non-Consents
1	Football	Male	17.2	0.75	11	44	9
2	Football	Male	16.6	0.65	14	70	11
3	Skiing	Mix (60% male, 40% female)	17.4	1.10	20	95	0
4	Skiing	Mix (54% male, 46% female	16.9	1.19	15	83	5
5	Football	Male	16.5	0.51	19	83	0
6	Football	Male	16.3	0.79	11	65	0
7	Football	Female	15.5	0.52	13	87	0
8	Handball	Female	17.0	0.56	20	95	1
9	Biathlon	Mix (64% male, 36% female)	16.8	0.70	14	100	1
10	Handball	Female	16.9	0.70	12	75	0
11	Handball	Female	16.9	0.30	11	92	1
12	Football	Female	16.0	0.00	8	80	1
13	Football	Female	16.9	0.86	13	93	0
14	Football	Male	16.0	0.00	13	57	0
15	Handball	Female	17.0	0.63	6	67	1
16	Handball	Male	17.2	0.44	13	100	1
17	Skiing	Mix (75% male, 25% female	19.0	4.51	12	41	0
18	Handball	Female	17.6	0.51	13	93	0
19	Skiing	Mix (50% male, 50% female)	17.6	1.44	12	100	8
20	Skiing	Mix (62% male, 38% female)	17.2	0.80	13	100	12
21	Football	Male	16.4	0.50	11	37	0
22	Biathlon	Mix (90% male, 10% female)	17.9	1.29	10	100	2
23	Handball	Male	17.6	0.50	14	52	0
24	Handball	Male	16.6	0.62	16	84	1
25	Football	Female	19.0	3.10	12	80	0
26	Handball	Female	16.0	0.00	10	100	0
27	Football	Male	17.2	0.85	19	83	0
28	Biathlon	Mix (46% male, 54% female)	19.2	2.98	13	72	0
29	Handball	Female	17.6	0.53	7	64	0
30	Handball	Male	17.6	0.67	12	60	0

Note. Age = mean age. SD (Age) = age standard deviation

Reflexivity, considerations and constrains

This dissertation has some methodological challenges that require comments.

The methodological design

The first challenge pertains to the choice to use a cross-sectional methodological design. The cross-sectional design produces a "snapshot" of the status of the social relations in the teams at a single point in time. The challenge with this design is that social relationships can fluctuate over time, both in terms of strength and among actors. Previous studies of youth

networks and networks in sport contexts has, to various degrees, found signs that social relations can be volatile. Warner, Bowers, and Dixon (2012) studied the efficacy network of two basketball teams over the course of a season and found that the lead coach moved from a central to a decentralised position at the end of the season. A second example is the research by Pearson, Steglich, and Snijders (2006), who analysed the evolution of social networks and substance use among adolescents active in sport. By taking on a longitudinal design, they were able to show that friendship preferences related to substance in sport are dynamic and not static. Furthermore, previous studies of friendships in classrooms show that young peoples' social relationships can change over time in small group settings, such as those in sport teams (McChristian, Ray, Tidwell, & LoBello, 2012; Shin & Ryan, 2014). Due to the cross-sectional research design in this project, I cannot conclude about the strength or stability of the social relations or my measures of concept where social relations with co-athletes play a latent role (e.g. enjoyment, social status and sport performances); it can only be inferred. The same applies to causality between variables, which, consequently, has not been pushed to the forefront of the articles in this dissertation. Following up on a selected number of teams over more than one time point would have enriched and improved the reliability and validity of the data, but time and money constraints made it difficult to pursue data collection again. That said, the chosen cross-sectional quantitative study design produced data with breadth and central tendencies that made it possible to answer the research questions I wanted to ask.

Boundary specification

My empirical network data are analysed using SNA, and a well-known challenge in network research is boundary specifications (Wasserman & Faust, 1994, p. 30). The network boundary is the limit that defines where a network begins and ends. This boundary is important to identify, define and describe the population under study. The boundary is also important because it determines the population to which we can generalise findings. In theory, it should be relatively easy to determine boundaries in sport teams because coaches need to hold complete membership rosters. I defined each teams' network boundary as the coach's perception of which participants belonged to the group at the time of my visit to collect data. However, athletes come and go, and turnover rates can become high, especially in late adolescence when athletes start pursuing other interests and competition in sport intensifies (Coté & Fraser-Thomas, 2007; Fraser-Thomas, Côté, & Deakin, 2008). Thus, just as the ways social relationships can change over a season, membership can also change from one point in time to another. Due to my cross-sectional research design, I have not been able to fully account for the dynamic nature of social life and changes and trends in the networks: how

social networks in sport teams lose and gain new participants, how relations break down and new ones emerge and how network structures change over time. This methodological limitation increases the importance of the snapshots of the networks being as precise as possible. As such, I contacted coaches the day before data collection to check that the list of athletes sent to me earlier was still correct. If I was unable to make contact, the coach and I went over the list of athletes when I visited to collect the data. Fortunately, only a handful of cases were identified. I removed their names from the name roster questions in the survey before handing the tablets to the respondents.

Missing responses and data quality

Prior to data collection, I anticipated that young people low on social, cultural and economic resources (e.g. status, friends and money) could express hesitation when asked to participate in the study. Moreover, even after consenting to participate, my survey contained potentially sensitive questions: about social relationships with others, sport performance levels and school grades. In that case, it may have been that consenting athletes deliberately chose not to show up for data collection or to respond in ways that mitigate social desirability biases. Defined as 'the need for subjects to obtain approval by responding in a culturally appropriate and acceptable manner' (Crowne & Marlowe, 1960, p. 353), social desirability can lead to data biases in self-report surveys (Stockemer, Stockemer, & Glaeser, 2019). Previous studies from the context of sport have shown that social desirability bias influences answers to survey questions about competitive anxiety (D. Smith, Driver, Lafferty, Burrell, & Devonport, 2002), attitudes towards doping (Gucciardi, Jalleh, & Donovan, 2010) and physical activity levels (Brenner & DeLamater, 2014). Given the importance of sport performances for young athletes and in competitive sport, it may be that many athletes have stated their own skills as higher than they really think they are (while answers to questions about co-athletes' sport performance are more negative). The same logic applies to grades. Not showing up for data collection because of the survey content and survey answers influenced by social desirability biases are instances of data *not missing at random,* which can impair data quality. A potentially moderating factor was that the questions were answered as a self-administered electronic survey, as research has shown that social desirability concerns are more easily triggered in interviewer-administered questionnaires and qualitative interviews (Kreuter, Presser, & Tourangeau, 2009).

There is also the problem of *missing data at random.* In my case, this could be due to consenting athletes not being present at data collection due to illness or skipping training on the day of data collection due to schoolwork or other obligations. In both instances of missing

responses, *volume* poses a challenge to data quality, as a certain number of respondents is needed to perform meaningful analyses. For example, in network studies, too many missing responses make it difficult to successfully measure and interpret networks, as the observed network must be of a certain size for network measures to work as intended (Kossinets, 2006; J. A. Smith, Moody, & Morgan, 2017). I was particularly concerned about missing responses in teams with few athletes. The final sample consists of three teams with 10 members or less; the average response rate for these teams is 70%, which I consider acceptable (Table 1). None of these teams had more than 2 non-consents and initial analyses with central network measures yielded no problems. Hence, I did not discard any teams because of team size or missing responses.

A second data quality challenge when conducting social network research is that social network properties are actor-dependent, which means that the relative impact each athlete has on the data varies. In teams with few members, each athlete's impact on the data is potentially high because the overall number of network members is low. For many network measures, a certain number of observed relations between the respondents are needed to carry out meaningful analyses. In two of the teams in my data, the data quality on *strong relations* was questionable or uncertain. People tend to have only a small number of close confidants (Small, 2017), and upon inspection, we found that three of the teams in our collected sample lacked an acceptable number of strong relations to be adequately analysed with our chosen network measures. Hence, data on strong social relations from these teams were discarded from further analysis.

Moreover, because the relative impact of each actor in a network varies, research subjects with central positions in networks that decline participation can severely influence the network structure and the interpretation of this structure.[8] In six of the thirty teams in my sample, there were two or more persons who did not consent to participate in this project. In addition, in most groups, there were some missing responses from the respondents who consented but did not attend practice sessions on the day of my visit to the team and thus did not fill out the questionnaire. This can lead to false representations of networks since all members of a network influence network structures. I checked for missing research subjects by looking at the data obtained from the respondents. Specifically, I looked at variables where

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[8] It needs to be noted that "central position" can be more than just centrality or network popularity. For example, an athlete with a low number of ties can be central in a sport network, for example, in holding a "broker" role, e.g. operating as a mediating actor between subgroups in the network.

I expected to find variation in the data. If respondents were missing, this would show up in the form of a lack of variation. First, I looked at sport performance levels. Athletes constantly evaluate and compare each other's sport performances, and when someone is considered good in sport, someone else has been evaluated as less good. I therefore expected that there would be variation in athletes' judgments of their sport performance. Additionally, social networks are a complex matter, so I expected to find variations in social network measures. I focused on network centrality and assumed that any absence of hierarchical structures indicated that important research subjects were missing from the data. In the end, there were hierarchical structures in the social networks (see Article 1), and there was variation in sport performance measures (see Articles 3 and 4), indicating acceptable data quality. Further details concerning methodological decisions regarding missing responses are found in the methods sections of the articles.

Anonymity and securing confidentiality when working with network data
Anonymity is the most powerful way to protect research subjects in survey research. NSD gives the protection of research subjects a great deal of attention and operates with a specific set of guidelines for anonymity and identity protection. NSD used some time to evaluate my application and review my questionnaire. They were very open about their lack of experience with social network research designs and needed time to evaluate the network questions in the questionnaire, especially in regard to safeguarding the anonymity of the respondents.

Ensuring confidentiality is fairly straightforward in conventional survey research because respondents are (usually) drawn from a large population. To disclose a respondent, one must identify and match the characteristics of the respondent with actual identities in the population. Even then, disclosure is not met, as the respondent can share the characteristics with other identities in the population. In network studies, disclosure is easier, and there are two ways this can happen: internal and external. Internal disclosure occurs when participants disclose other participants by deducting who is in a network and identifying the social relations between the actors in the network (Small, 2017). In a network study with clearly defined network boundaries (e.g. a sport team), all the participants are indirectly connected to all the other participants, which heightens the risk of disclosure. In this project, the respondents had to give their names to the survey for me to construct a network of who was connected to whom. Because I used name rosters to map social networks, the respondents could potentially see which co-athletes had or had not consented to participate in the study, as they would not be included in the name rosters. In other words, I could keep participant responses confidential but not anonymous. Moreover, my data collection took place just

before or after the training sessions, which meant that the respondents were in a social mindset, either just coming off or looking forward to spending time with co-athletes. Hence, I found it impossible to avoid some respondents sitting close to each other when they filled out the survey, and it may have been possible for some to see the survey responses of those in the nearest proximity. Moreover, this situation is susceptible to socially desirable responses as described on page 43. In the survey, they respondents were asked to rate each other's popularity, likability and skill level in their sport. It cannot be ruled out that, for example, Respondent A and Respondent B, who are good friends and sit close to each other when they complete the survey, answer about the other that they are more popular/liked/better at sport than they actually think to avoid hurting each other.

External disclosure occurs when the general public identifies a specific respondent. There is an added risk for this in social network research because mapping peoples' social connections allows for triangulation: when you have information on Athletes A and B, it can (depending on the amount of additional information on the network and the athletes) be easy to identity Athlete C. In contrast, conventional survey research samples people with known probability from a population, and no information on other people plays a role in the sampling process (Small, 2017). To avoid external disclosure, I have purposely avoided making direct links between information about network data (i.e. social relations) with any other information about the respondents except for their gender (in Article 1). Thus, the likelihood of someone in the public identifying a specific athlete by deducting information on the respondents from the descriptions of social networks should be small.

Apart from these challenges, I followed standard practices in the survey methodology of anonymisation to ensure confidentiality. Team names were replaced with new random names and the respondents' names were replaced with a response code consisting of pseudo ID that was linked to the original data. This was done immediately after the data were collected, usually the next day. I considered it necessary to keep the link key between the response code and the original data during the period I was controlling the quality and structure of the data, which usually took a couple of weeks. During this time, the link key was locked away in a password-protected hard drive in a safe place; I was the only one who knew the code. After I checked and found the data satisfactory, the original data were deleted.

A note on measures and operationalisations
The way I measured and operationalised social relations, networks and experiences in sport needs to be critically discussed. In Articles 1 and 2, we measured strong relationships with a question: 'With which members of the group do you share [a] hotel room or sleep next to

during competitions?'. As we emphasise in Article 1, there are at least three problems with this operationalisation. First, it is not a given that athletes themselves choose who they share room with. It could just as well be that this is determined by the coach. It can also be determined by random, for example if accommodation is booked via an electronic booking system. Second, not all teams travel the same amount and the relevance of the question as representing strong relationships may vary accordingly. This does not mean that teams that do not travel are short in strong networks but that the operationalisation could lead to an underrepresentation of strong relationships in these teams. To ensure the most reliable data possible, we set the criterion that we only analysed data from teams with strong networks that contained at least 1 mutual dyad (i.e. that at least two of the actors in the team have a strong relationship with each other); in the end, networks from 3 of the 30 teams in our sample were omitted from the analyses. Third, our operationalisation was specific to sport; a more general operationalisation (and, for Article 1, a more gender-specific operationalisation reflective of more general gender socialisation processes, as described in Chapter 3) may have provided a different depiction of the strong networks.

Article 3 is about sport and social status, and a limitation of our analysis is that we did not examine whether status processes took on different forms in different types of teams. For example, there is reason to assume that sport performances play a greater role in status in team sport than in individual sport because in team sport, group-level outcomes (i.e. winning or losing) are contingent on the efforts of all team members. That said, the dichotomy between team sport and individual sport has been criticised for not being the best for capturing the degree of structural interdependence between group members (Evans et al., 2012). A potentially more fruitful approach could have been to study status processes in the four different sports represented in my sample (football, handball, biathlon and cross-country skiing). In addition, we did not examine whether the relevance of sport performances differs between boys and girls, despite research showing that boys attach more importance to sport performances and that sport performances are more important for social status for boys than for girls (Adler, Kless, & Adler, 1992; Dubois, 1990).

Finally, in Article 4, I emphasise enjoyment as an important part of the sporting experience, but this is difficult to measure. As pointed out in Chapter 3, enjoyment in sport can vary from moment to moment and day to day, depending on how the activities play out. That said, the respondents in my sample are at an age where they probably have the cognitive resources (and possibly some experience in answering surveys) to identify the purpose of the question: to capture more generalised feelings about overall enjoyment in sport. Enjoyment in

sport can also be influenced by factors outside of sport, such as relationships with friends, parents and partners. However, the link to the outside world is a major part of what makes enjoyment in sport scientifically interesting for my project: enjoyment reflects what goes on in sport but also more general feelings of overall well-being, which obviously is important in educational settings.

Chapter 5 | Results

In this chapter, I present summaries of the research findings for each of the four articles in this dissertation. Together, the articles inform about the role of athletes' social relations for sport as a social arena: its manifestations, causes, significance and consequences. The implications of the collected findings are discussed in the next chapter. For more detailed information concerning the results, I refer to the articles at the end of the dissertation.

Article 1

Bergesen Dalen, H. and Seippel, Ø. (2019). Social Network and Gender in Organized Youth Sports. *European Journal for Sport and Society.* DOI: https://doi.org/10.1080/16138171.2019.1693143

Aim. The first article, co-authored by Professor Ørnulf Seippel, applies a social network perspective to describe social networks in sport. The research questions were as follows: What do social networks in sport look like? What are the differences between girls' and boys' social networks in sport? How do we explain such differences?

Results. To capture different types of social networks in sport, we distinguished between *weak* and *strong networks* (Granovetter, 1973). Weak networks are composed of loose, undemanding social relations, while strong networks are made up of more demanding, intimate relations based on close emotional connections.

We examined differences in network structures between boys' and girls' social networks in relation to the social mechanisms of *propensity* – the basic tendency to relate to other people, which we measured as average degree; *centralisation* – the degree to which social relations in a network are concentrated in a few actors, where the outcome is (more or less) centralised and hierarchical networks; *reciprocity* – the mutuality between network members; and *clustering* – when actors relate to other actors who already are close, the outcome is the development of tight-knit groups within the larger network.

To answer our first question – what social networks in sport look like – we found large variations between the 30 teams in our sample. Strong social relations were generally few in number and were hierarchically structured in some but not all teams. The strong relations did not cluster much, which we attributed to an overall lack of network activity, rendering the networks fragmented.

Weak relations were more numerous, but there was considerable variation between teams. Furthermore, weak relations were more hierarchically structured than strong relations

and were more prone to clustering. The level of transitivity was similar in the strong and weak networks.

For the second question – what are the differences between girls' and boys' social networks in sport? – several noteworthy discoveries were made. First, and contrary to our expectations, girls had, on average, more social relations than boys, especially in weak networks. Next, we found that girls' social networks clustered more compared to boys' social networks. Gender differences were less profound in strong networks. Hence, our study findings emphasise that specific gender-socialised networks are most prominent in the most common social interactions in athletes' daily lives in sport.

Article 2

Bergesen Dalen, H. and Seippel, Ø. (2021). Friends in Sports: Social Networks in Leisure, School and Social Media. *International Journal of Environmental Research and Public Health.* DOI: https://doi.org/10.3390/ijerph18126197

Aim. In Article 2, which is co-authored by Professor Ørnulf Seippel, we examined the sources and processes from which social networks in sport come into being. Our starting point was that social relations in sport are influenced by athletes' social relations elsewhere. Young people are socially active on many fronts, and we aimed to establish how the quantity and quality of young athletes' social relations in sport depend on participation in social arenas outside sport. Hence, we posed the following research question: How do social relations in leisure, school and social media influence social relations in sport?

Results. We studied the same two sport networks as in the first article: *weak* and *strong networks* (Granovetter, 1973). The data were analysed first by describing the sport and non-sport networks using four central social network characteristics: the number of social relations, average degree, density and centralisation (Wasserman & Faust, 1994). This gave us a first glance into the structural similarities and differences between social relations in sport, school, leisure and social media. The descriptions of the social networks showed that social relations in sport are diverse. There were far fewer strong relations than weak relations in each team (ties). On average, each member had about two strong social relations and six weak social relations (average degree). The strong sport networks were much less dense and centralised than the weak networks. Overall, strong sport relations were rare, exclusive and evenly distributed, while weaker social relations were more widespread and less evenly distributed.

Next, we looked at the overlap between these two sport networks and athletes' other important networks for socialisation: school, non-sport leisure and social media networks. For the strong networks, an average of 47 percent of athletes attended the same school; 68 percent were part of the same leisure networks and 74 percent were friends on social media. For the weak networks, the numbers were similar, but lower: 45 percent for school, 64 percent for leisure activities and 62 percent for social media.

For our main research question – how do social relations in sport depend on social relations outside of sport? – we ran a set of ERGMs. The results showed that the effect of school networks was not very important for athletes' development of social relations in sport. For the effects of athletes' socialising non-sport leisure activities, we found two noticeable differences compared with the effects of the school networks: the effects on sport networks were positive in a larger number of teams and the strength of association was stronger. Interestingly, the strongest effect on tie development in sport networks – both weak and strong – came from social media networks. As for the effects of sport participation, we found the effect of time spent in clubs to be small and unsystematic. The effect of exercise frequency also turned out to be low but somewhat more important for social networks within sport than duration.

In the discussion, we drew attention to how social relations in and around sport have consequences for participation in sport: for starting, continuing and dropping out of sport. We emphasised that supporting athletes with meaningful social relations outside of sport while also participating in sport increases the probability of continuing with sport. Given the interrelated nature of young people's social relations, we advocated the potential fruitfulness of supporting athletes' social relations in more than one type of non-sport network.

Article 3

Seippel, Ø. and Bergesen Dalen, H. (2023). Social status and sport: A study of young Norwegians. *International Review for the Sociology of Sport.* DOI: https://doi.org/10.1177/10126902231202924

Aim. Article 3 is also co-authored with Professor Ørnulf Seippel. The aim of this article was to examine the *social status* associated with sport among Norwegian youth in general and among athletes. First, we analysed the status of sport among Norwegian youth and athletes compared to other status markers *(school, look, trust, alcohol, drugs, fashion, social media and politics)*. Control variables included age, gender and cultural class. Next, we zoomed in

social status processes within sport and examined how sport performance impacts athletes' social status (popularity and likeability).

Results. The results showed that *sport* was the most important status marker among sporting youth, followed by *trustworthiness*. After that followed *look*, *likes* (on social media), *school*, *fashion*, *politics*, *drunk* and *cannabis*. In the general youth population, trustworthiness was the most important status marker by a good margin, ahead of (in descending order) *look*, *sport*, school, *fashion* and *likes*, *politics*, *alcohol* and *cannabis*. The results for the control variables showed that the status of sport was highest among males and younger youth, while no significant association was found between cultural capital and the status of sport. For status within sport, positive correlations were found for sport performance with popularity and likability.

Against the premise that variations in the status associated with sport could impact individual experiences of sport activities and the social relations between athletes, the concluding discussion consisted of two parts devoted to reflections on how the article's findings could provide new insights on recruitment, continuation and dropout from sport. The first part dealt with the general high status of sport, where we concluded that sport has appeal and that participation is attractive. This should help recruitment and continuation and be a protective factor against dropout. In the second part, we made some conclusions in relation to the social status of sport among different subsets of the youth population. For gender, the status ascribed to sport was unequally distributed between boys and girls, more so than the other status markers included in the article. Our finding that the status associated with sport is higher among younger athletes indicates that sport experiences and social relations in sport drop in importance with age, and with that, interest in sport also drops. This can help explain the high appeal of sport among youth and clarify the high dropout rates that come later (Persson, Espedalen, Stefansen, & Strandbu, 2020). The final part of the article was devoted to the finding that sport performance correlated positively with social status (individual popularity and likability). This is important because making judgments about the performance of others is central to how sport is experienced. At first, sport appeals to all young people, but the competitive element inherent in sport promotes a social process that favours those who succeed in sport: they achieve higher status, enjoy sport more, develop vital social relations with co-athletes and will thus be more committed and feel a stronger sense of belonging to sport.

Article 4

Bergesen Dalen, H. (in review): Organised Sports and School: Conflicting or Mutually Supportive Arenas? The Significance of Sporting Experiences. *Nordic Journal for Youth Research.*

Aim. Previous research has shown positive links between sport participation and school outcomes, but this association is based on simple comparisons of academic achievements between athletes and non-athletes. Rarely is the quality of sport participation taken into consideration. Against this backdrop, the aim of Article 4 was to examine school outcomes among athletes in light of their sporting experiences: the degree to which they find sport enjoyable and their sport performance levels.

Results. Multilevel regression analysis identified variations in athletes' grades, time spent on homework and interest in school in relation to how athletes qualitatively experienced sport. Grades in physical education increased with better sport performance and with higher sport participation frequency, while a positive but non-significant association was found for sport enjoyment. Grades in theoretical subjects (Norwegian, English and mathematics) were weakly associated with higher enjoyment and sport performance levels, while cultural class was more consequential. Contrary to expectations, an interesting and surprising discovery was that better sport performances were associated with less time spent on homework and less interest in school. More in line with these assumptions was the finding that higher sport enjoyment was associated with more interest in school. There were no significant variations in school outcomes between boys and girls.

While participation in organised youth sport is generally viewed as beneficial, the results in this study show that further scrutiny is needed over the social consequences of sport participation and that researchers should pay more attention to the quality of sport participation when studying what participation in sport means for educational outcomes.

Chapter 6 | Concluding discussion

Sport is one of the most important social arenas for Norwegian youths. Against the backdrop of organised youth sport's many goals to achieve and the challenges to solve, the purpose of this dissertation has been to examine organised youth sport as a social arena by focusing on the social relations underpinning youth's participation in sport.

I have examined four specific aspects of sport as a social arena: i) what social relations in sport structurally look like (as social networks); ii) where social relations in sport come from; iii) sport as social status and iv) what social relations lead to: the social consequences of participating in organised youth sport. To generate new knowledge on these aspects, I have written four articles: an examination of girls' and boys' social relations as social networks in sport (Aspect 1, RQ 1), an investigation on how athletes' social relations in sport depend on social relations outside of sport: in leisure, school and social media (Aspect 2, RQ 2), an analysis of the degree to which sport is associated with social status among Norwegian youth and the importance of sport performances for social status within sport teams (Aspect 3, RQ 3) and an examination on how social experiences in sport – having fun (or not) and performing well (or not) – is associated with education: academic achievements, time spent on homework and school interest (Aspect 4, RQ 4). In the previous chapter, I presented the most important findings from the articles and their relevance to each article's research foci. I will now use the findings to give some new answers to a key question in sport sociology: What drives sport participation, and what is the role of social relationships in sport in this process? Hence, in the following sections, I discuss the contributions and implications of the findings on a more practical level and along the lines of three fundamental dimensions of sport participation: 1) recruitment to sport, 2) continuation and 3) dropout from sport. From a relational perspective, the two latter dimensions require the same thing: positive sporting experiences and meaningful social relations (Jakobsson, Lundvall, & Redelius, 2014). I therefore discuss continuation and dropout in the same section. I mostly utilise the findings from the first three articles, as they are most relevant to the discussion.

Recruitment to sport

The main aim of Article 1 was to examine gender differences in social relations in sport, and an interesting result was that girls had more social relations than boys. Girls' higher propensity to be social supports previous research showing that girls tend to emphasise social relations and being with friends when deciding to join sport clubs (Gjesdal & Hedenborg, 2021). Hence, for recruitment purposes, it seems pivotal to facilitate sport activities in ways

that allow for interactions and friendships to flourish. Adding to this, in Article 2, we found that athletes' social relations in sport depend on their social relations outside sport. This finding broadly supports the work of other studies that show that recruitment to organised youth sport is fuelled by young people's social networks – with family (Strandbu, Stefansen, et al., 2019), peers (Gjesdal & Hedenborg, 2021) and in school (Johansen & Green, 2019). Moreover, combining this result with the social network mechanisms of homophily, social contact and contagion outlined in Chapter 3 may help us explicate how recruitment takes place: two young people discover a mutual interest in sport (homophily), meeting in social arenas outside of sport (contact) or how social relations function as informal channels of influence, such as when an athlete convinces a non-sporting peer that sport is worth trying out (contagion). These insights can have implications for how to set up successful recruitment strategies by revealing that much of what young people know and their attitudes towards sport probably stems from informal interpersonal channels with peers. Another important finding that probably matters for recruitment is that sport – probably by reverberating and being associated with the cultural values of our time – holds a high status among Norwegian youth. It seems reasonable to assume that this makes recruitment easier by increasing the attractiveness of sport. Also important is our finding in Article 3 that the social status of sport is not contingent on athletes' cultural capital; it appeals to youth of all class levels.

Continuation and dropout

An important finding in Article 3 was that social relations in sport depend on social relations outside sport, and this can provide new insights into how to keep youth in sport. It is well established that social support from coaches, parents and co-athletes is important for continued participation (Sheridan, Coffee, & Lavallee, 2014). Our finding in Article 2 that meeting and socialising outside sport helps promote social relations in sport suggests that offering social support to athletes' social endeavours in other ventures of life can be favourable for ensuring that vibrant social relations in sport are formed, thereby possibly increasing the likelihood of sustained participation. Furthermore, this is a voice in the discussion regarding when to start specialising in sport. Sport specialisation means narrower focus in one sport activity and exclusion of other sport activities and maybe also less time, attention and capacity to engage in non-sport activities and to meet people in other social arenas outside of sport. Hence, a risk of starting specialisation (too) early is that important social relationships that can help sustain participation in sport can potentially go lost.

The extent to which athletes thrive in sport is also contingent on the social structures surrounding them, and an overreaching finding in Article 1 was that social relations in sport teams were diverse, and these variations in social network structures in sport – alongside athletes' unique and, in many cases, very different social positions within these networks – have repercussions for sport participation. On the individual level, we know that social positions – which are determined by their social connections with co-athletes – impact social identification with their team (Graupensperger et al., 2020). Hence, the individual differences we found in athletes' social connections and network positions are probably decisive for the sporting experience. Those with rewarding social relations might experience sport in ways that make them think *I have fulfilling friendships, I enjoy sports, I want to continue*. Conversely, athletes positioned more on the social fringes in sport networks might think, *I have no one to talk to, I don't belong here, I quit*. On the team level, the differences in network structures probably influence team cohesion and their competitive capacities, which, in turn, have been shown to influence feelings of athlete relatedness and motivation to continue sport, as well as lower burnout perceptions (Pacewicz, Smith, & Raedeke, 2020). For gender, in Article 1, we found that girls have a higher number of relationships with co-athletes, especially with regard to weak social relations, and this probably has several positive effects for keeping girls in sport. Weak social relations, in our case measured as having someone to talk to during practice sessions, can be seen as a type of rudimentary social interaction that is probably decisive for athletes to enjoy everyday life in sport, which is a means to integrate new team members or for smoothing out potential conflicts. Because of their easy-going nature, weak relations are also easy to replace, thereby providing social stability to the team, which is important for sustained participation: there is always someone to talk to.

The association between social status and sport performances, as explored in Article 3, cast light on how status is important for continued involvement in sport. This finding is in accord with notions that being attentive to social status and similar extrinsic benefits in combination with factors fuelling more intrinsic interest in sport might help keep youth engaged longer (Gjesdal & Hedenborg, 2021; A. M. Ryan & Deci, 2007). Through the acquisition of social status, it is likely that the best performing athletes experience greater enjoyment in sport, occupy comfortable social positions at the top of the social hierarchy, develop rewarding social relations to co-athletes and thereby are more inclined to keep on in sport. Moreover, our results showed that sport carries more status among boys than girls. Because of this, it is reasonable to assume that girls receive less recognition for their sporting

careers. This, in turn, suggests that in order for girls to continue in sport, they probably need higher motivation and stronger commitment. A limitation of our analysis is the cross-sectional design, which fails to do full justice to the dynamic nature of social status and social life in sport teams. Athletes constantly monitor, evaluate and give feedback to each other's sport performances, so falling back in the status hierarchy due to co-athletes catching up on their sporting abilities may be a tough blow and may lead to, in worst case, dropout. Moreover, social status is a challenge for coaches because the desire for social recognition is fundamental to the human condition (Anderson, Hildreth, & Howland, 2015); hence, it is not easy to manage and cannot be eliminated. Nonetheless, understanding social status processes in teams helps to keep athletes in sport and prevent them from quitting, as it sheds light on the inner workings of sport as a social arena: how athletes experience sport and their social interactions and how social structures develop within sport.

The fourth question in this project was how the quality of the sporting experience was of significance for how young athletes perform at school and show interest in education. The results showed that enjoying sport was associated with higher school engagement, and no negative correlations were found in relation to homework or grades. This indicates that those who enjoy sport thrive in the social environment of sport. Enjoyment in sport is also seen as an expression that balancing sport and school is going well. This can give a deeper sense of well-being in life in general and an appreciation for social connections with peers, thereby increasing the motivation to continue with sport. Overall, the positive link between enjoyment in sport and school interest substantiates previous research that enjoyment in sport leads to continued participation (Gardner, Magee, & Vella, 2017).

A second finding that stood out in Article 4 was that higher sport participation levels correlated negatively with homework and interest in school. A possible explanation for this might be that workload in sport and school increases steadily during the teenage years, and mastering the competitive logic of sport is not achieved overnight; it requires time, effort and attention (Coleman, 1961; Marsh, 1992). The consequence may be that it becomes difficult to sustain participation in sport without affecting the attention given to education. This finding regarding sport performances must be interpreted with caution for two reasons. First, it could be that the best performing athletes are less interested and motivated for school in the first place. Second, although I controlled for cultural class in my analyses, participation in organised sport in Norway is more common among youth from higher sociocultural circles (Seippel et al., 2011), so my sample of athletes is probably fairly homogeneous in terms of class affiliation. This does not explain why high performers do less homework than lesser-

skilled athletes. However, the weaker interest in school among high performers could simply reflect that a majority of these athletes belong to higher socio-economic circles, where school and higher education are considered as something normal and expected that do not need greater attention (Noble & Davies, 2009). This image is reinforced by the fact that their grades are equally as good as those achieved by lesser skilled athletes.

Future research

All told, my research shows that social relations in sport is a complex matter that impacts how sport as a social arena looks like and operates. On completion, I see (at least) four tasks that went beyond the scope of this study and should be followed up on in future studies.

The first task is to look more closely into how SNA can be used to measure and analyse social relations in sport. I have studied social relations in sport with SNA relying on a cross-sectional design, and future research could usefully study social networks in sport over time to see how social relations develop, unfold and impact network structures. A second task is to examine more carefully the content and meaning of social relations in sport. I have studied two types of relationships as social networks – weak and strong (Granovetter, 1973) – plus three relational concepts: status, enjoyment and sport performances. A more qualitative understanding of different types of social relations is necessary. In a related vein, sport is different from other leisure activities, as, say, the scouts, which underline the importance of getting a better hold of *which types* of relationships are most important for understanding the inner workings of sport as a social arena. Third, most sport questions of a critical nature can benefit from studying relationships with a relational focus. Therefore, a third important task, which appears to be particularly relevant for quantitative sport research, is to further explore the value of adopting relational approaches when examining sport issues. Finally, future researchers could benefit greatly from utilising social network theory and methods when networks constitute the core of what is being studied, such as cohesion and social capital.

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Articles

Article 1

Bergesen Dalen, H. and Seippel, Ø. (2019). Social networks and gender in organized youth sports. *European Journal for Sport and Society*. DOI:
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Article 2

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Article 3

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Article 4

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Article 1

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Social networks and gender in organized youth sports

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Social networks and gender in organized youth sports

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ABSTRACT

Sports are social, and the sociability of sports (e.g. individual experiences, group cohesion or generalised social trust) and its consequences (e.g. enjoyment, inclusion, or social capital) depends on the social networks in sports teams. In this study we investigate various types of social networks in sports—strong and weak—for boys and girls. We look at the number of social relations in each team (average degree), how centralised and hierarchical teams are, and how each team clusters and consists of subgroups. We hypothesise that: (i) Boys' and girls' teams differ in number of social relations, (ii) Boys' social networks are more hierarchical than girls' networks, and (iii) Girls' teams are more clustered than boys' teams. Network data from 387 adolescent athletes on 30 sports teams in football, handball, cross-country skiing and biathlon were collected with an electronic survey-questionnaire. The results reveal large differences in network structures between teams. We find that the total number of social relations is higher in girls' teams, that there are small gender differences with respect to networks' hierarchies, and that girls' networks cluster more than boys' networks.

Introduction

Sports are social. Individuals report that meeting and socialising with friends are important reasons for taking part in sports (Crane & Temple, 2015), and most people have high expectations towards the social effects of sports participation (Seippel, 2019). For young people, other than family and school, sports are among the most important venues for socialisation (Coleman, 1961; Shakib, Veliz, Dunbar, & Sabo, 2011). At the organisational level, sports participation might lead to social cohesion (Carron & Brawley, 2000), and social relations and trust within sports groups could facilitate both participation and performance in sports (Lusher, Kremer, & Robins, 2014; Macdonald-Wallis, Jago, & Sterne, 2012; Warner, Bowers, & Dixon, 2012). Sports' sociability is, moreover, also supposed to impact larger issues such as social

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integration, inclusion and social capital (Ibsen et al., 2019; Nicholson & Hoye, 2008; Østerlund & Seippel, 2013; Seippel, 2006).

Even though we know quite a bit about several of the above issues, a recent review of social network studies in sports reveals consequential shortcomings in this field of research (Wäsche, Dickson, Woll, & Brandes, 2017). Whereas the most common topic addresses the link between social networks and performance, the least-studied topic concerns what actually goes on within sports teams: intra-organisational aspects (Wäsche et al., 2017). Social networks at this basic level of sports are, however, obviously of value both for those participating in sports and the larger social issues linked to sports participation: 'Fundamentally, to be concerned with intra-group relations of a team, a focus on actual relations between team members is important, …' (Lusher, Robins, & Kremer, 2010, p. 212). In this study we take this challenge literally and ask directly what social networks within sports teams look like.

Those familiar to sports studies will know that sports are often heavily gendered (Theberge, 2000; Wicker, Breuer, & von Hanau, 2012). For social relations and gender, we, stereotypically, tend to presume that girls are emotionally unstable, mild, gentle, understanding and cooperative. They stick together and share strong relations in small networks. Boys, conversely, are presumed to be in emotional control and display competitiveness, aggressiveness and leadership. They have many friends in large networks with visible leaders. Given the gendered nature of sports and the scant attention paid to gender in the social network literature, we find it worthwhile to ask whether the social networks in sports groups vary by gender.

Against this background, we ask three questions: (1) What do the social networks within sports teams look like? (2) What are the differences between girls' and boys' social networks in sports? (3) How do we explain such differences? Answers to these questions would be interesting not only in themselves, but also because the quantities and qualities of such social networks will influence sports' ability to fulfil the social visions assigned to it.

To describe these networks and to look into the gender differences in these networks, we will rely on three of the most familiar concepts within social network theory (Borgatti, Everett, & Johnson, 2013; Prell, 2011; Robins, 2015; Wasserman & Faust, 1994) and recommendations by those promoting social network studies of sports (Lusher et al., 2010; Wäsche et al., 2017; Yim & Kim, 2017). *Average degree* shows us how many social relations persons on each team have on average. *Centralisation* tells us if athletes tend to focus their relations on many or few actors (i.e. whether networks are hierarchical or not). *Clustering* shows how athletes come together and form subgroups within the larger network. We also distinguish between *strong* and *weak* networks on each team to describe how social networks within sports might differ. To explain variation in network characteristics, we rely on theories on gender socialisation and three social network mechanisms—*propensity, reciprocity* and *transitivity*—that might tell us how gender translates into differences in social networks.

To answer our three questions, we first give an overview of previous research on gender differences in girls' and boys' socialisation and social networks and discuss how gender differences might matter for social networks in sports. Next, we present our data, which was collected using a survey of the social networks within 30

Norwegian youth sports teams (387 individuals, 11 girls' teams, 11 boys' teams and 8 mixed-gender teams). We then outline our methods before presenting our results, including: (1) a descriptive section based on visual presentation of our networks, and (2) a section systematically comparing measures of the various networks. We end the article with a discussion of our findings and some reflections on how to proceed with social networks studies within sports organisations.

Gender socialisation, networks and sports

Previous studies on differences in *socialisation* show that, beginning in early childhood, girls are more aware and observant of their social environments than boys. Later in adolescence, girls also place more emphasis on personal relations (Gilligan, 1982). Moreover, research on gender shows how differences in socialisation are more pertinent in some contexts than in others (Ridgeway & Correll, 2004).

Our focus is young athletes in sports *organisations*. Organisations' tendency to produce and reproduce cultural beliefs about gender has been documented (Acker, 1990), and in organised sports, the production of normative gender-based expectations is central. Dworkin and Messner state that 'Besides making money, making gender may be sports' chief function' (Dworkin & Messner, 2002, p. 17). Boys and girls have different expectancies when it comes to achieving competencies and developing identities in sports: Youth actively have to adapt or distance themselves from given gender *identities* (Connell, 2009). Messner (1990, 2011) finds, furthermore, that the adult-organised, gender-separated activities in sports represent a context leading to hegemonic gender-cultures: Masculinities go together with competition, physical strength and skills, while femininities are equated with cooperation, vulnerability and sensitivity. As a result, different gender-cultures could have the potential to influence behaviour and social network structures within sports (Brown & Light, 2012).

Two sets of findings are relevant for this study. First, as to socialisation, there are differences in girls' and boys' social lives: Girls prioritise intimate and close relationships, which makes some of their social networks more demanding (i.e. they require higher investments) and riskier (i.e. they are more vulnerable) than boys' networks (Dindia & Allen, 1992; McDougall & Hymel, 2007). Second, boys tend to have larger and more hierarchical networks than girls' networks, which are more exclusive, intimate, and difficult to access than those of boys (Gest, Davidson, Rulison, Moody, & Welsh, 2007; Pattiselanno, Dijkstra, Steglich, Vollebergh, & Veenstra, 2015).

As Wäsche et al. (2017) point out, the few studies on concrete social networks within sports groups reasonably assume that networks vary in their characteristics (e.g. relevance, cohesiveness, support of performance, inclusivity). Most groups contain other, parallel types of social networks. To link our more developed knowledge of gender differences to our more limited knowledge of the concrete social networks in sports, we start out with one of the most common and applied distinctions in social network studies: *strong* and *weak* networks. In strong networks, relations are of a certain emotional intensity; they require effort and resemble 'best friend' behaviour: personal, intimate, demanding and limited in numbers (Granovetter, 1973; Greenbaum, 1982; Sullivan, 1953; Zimmermann, 2004). Weak social networks (e.g. 'day-to-day'

interaction, sports typically in training sessions) are not as close, emotional and exclusive. They are, nevertheless, often important for athletes' socialisation (Granovetter, 1973; Krackhardt, 1992; Morrison, 2002). That different compositions of weak and strong networks—combinations of bonds, bridges and structural holes—matter for social issues is among the most studied topics in modern social sciences (Burt, 1992, 2005; Putnam, 2000, 2015). In our subsequent outline of network measures, we further link gender and network types to three social characteristics with supporting social mechanisms (Hedström & Ylikoski, 2010).

Average degrees and propensity: do young athletes have many or few friends?

Social network analyses start from the idea that social life is relational (Emirbayer, 1997); an initial social mechanism of *propensity*—a basic tendency to relate to other people—indicates how social networks emerge and develop. Outcomes of this propensity are the relations we measure as representing an *average degree* (i.e. how many social relations members in each team have, on average); this is a first, straightforward step in analyses of social networks (Marin & Wellmann, 2011; Wasserman & Faust, 1994).

Most people have more companions than close friends, and those persons' propensity for establishing relations characteristic of strong networks should be lower than that for weak networks (Hypothesis 1, H1). Whereas boys tend to invest less in each of their social relations, girls are inclined to appreciate closer social networks to which they devote more time and emotion. Girls' more intimate way of interacting does not encourage social propensities to the same degree as that of boys, and we assume that average degree will be higher in boys' than girls' networks (H2). We assume that differences in social structures are much larger between strong and weak networks than between male and female networks. Accordingly, it might be difficult to detect gender differences without also distinguishing strengths of the networks. We will, accordingly, look for gender differences in all networks, but primarily in strong and weak networks, separately. By investigating gender differences in general, we might also speculate about the differences between strong and weak networks. If generally speaking, we expect boys' networks to be larger than girls' networks, we suggest that these gender differences would be smaller in strong networks—where girls' modus operandi is dominant—than in weak networks (H3).

Centralisation and mutuality: friendship distributions and social hierarchies

Centralisation describes how relations are distributed in networks. When more social relations are concentrated in a few actors, the networks are more centralised and hierarchical. The centrality of a social network will depend on a second social mechanism, the reciprocity (i.e. *mutuality*) between individuals. The larger the differences in the number of reciprocal social relations between athletes in a team, the more hierarchy and centralisation exists (Freeman, 1978)

All networks in our analyses are, for methodological reasons, reciprocated (see section on data and methods). We still assume, however, that actors invest more in their

strong networks than in their weak networks (Greco, Holmes, & McKenzie, 2015). Because the weak networks are less intimate and demanding, we expect higher centralisation in weak than in strong networks (H4). Boys are more open to asymmetry in social relationships (Kamphoff, Gill, & Huddleston, 2005; Murcia, Gimeno, & Coll, 2008; Smith & Inder, 1993); girls are more restrictive with whom they interact (Dworkin & Messner, 2002). This variation suggests that girls invest more in their reciprocated relations than boys. All in all, we assume girls to invest more in their networks and, hence, to have less centralised networks than boys (H5). We have no explicit assumptions on how gender differences in centrality might differ between strong and weak networks.

Clustering and transitivity: friendships in subgroups

Clustering happens when actors relate to other actors who already are close—often a friend of a friend—but less so to other actors who are less close. Such groups result from a range of trust: We trust someone (to whom we relate) but distrust others (to whom we do not relate). The outcome is development of tight-knit groups within the larger network.

Strong networks consist of more intimate social relations (i.e. more trust-laden) where only some actors are included. This could happen due to clustering mechanisms. In weak networks, the relations will be more varied because level of trust is less important; the result is a lower level of clustering (H6). We apply the same logic to gender. Girls tend to invest more in their relations which tend to get riskier (Louch, 2000), leading to the establishment of fewer, more selective relations that result in clustering. In boys' relations, less intimacy and risk are involved, so the level of clustering will be lower (H7). When looking at both gender and strength of networks, it is reasonable to assume that girls' disposition towards close and intimate relations leads to larger differences in clustering between boys and girls in strong networks (H8). The general social mechanism behind clustering—*transitivity*—is also measured separately in this study. We expect transitivity to be higher in strong networks and among girls than elsewhere because the development of social relations is more selective in these groups (H9).

Data and methods

Participants and procedures

This study is based on data collected from surveys of 30 teams of athletes representing 387 individuals. Athletes are between 16 and 19 years of age, from 27 different clubs, and eight of 19 counties in Norway. Some of the 30 teams are from the same club; hence, the difference in team and club totals. We define teams as sections within sports clubs: e.g. 17-year-old girls playing handball, or gender-mixed groups aged 16 years who participate in cross-country skiing.

The athletes completed a survey on their participation in sports, their social relations to co-athletes within and outside the team context, and social background. We used portable tablets to collect data before or after a training session, or in other settings (e.g. social gatherings, meetings).

Because the data collection depended on cooperation with coaches of the teams, the sampling of teams started and subsequently developed from the main authors' social networks. We sought team diversity through snowball sampling (e.g. different sports, competitive levels, geography, ages and gender). Data collection started with each team's coach receiving a description of aims and procedures of the study. The coaches then reported the names of athletes they considered as members of their team. These lists were used to construct name rosters (i.e. lists of all athletes in each team) for the network questions in the questionnaire.

The response rate was 74% (i.e. 387 of the 518 athletes who consented to participate in the study completed the survey). Common reasons for athletes' not filling out the survey included absences at the scheduled times and athletes no longer on teams yet present on the name rosters. Finally, 54 athletes declined to participate in the study. We decided to exclude three of the strong networks because they contained too few relations for doing useful analyses. Accordingly, the strong and weak networks have different sample sizes. The sample of the weak networks is 30 (387 athletes) and for strong networks 27 (348 athletes) for the strong network.

In accordance with regulations provided by the Norwegian Centre for Research Data (NSD), *consent* was defined and registered as an athlete's completion of the survey. Respondents could at any time decline to participate or discontinue filling out the survey. Those respondents who were absent at the scheduled times received a reminder of the survey by email the next day. If the survey still was not filled out, a

Table 1. Variables in the study.

	Range	Mean	Max	Min	St. dev	N
Strong networks						
Average degree	0 to (N-1)x2[†]	1.86	4.92	0.29	1.21	27
Average degree, weighted	Average degree/N-1	0.17	0.41	0.02	0.11	27
Centralisation, degree	0 to 1	0.16	0.40	0.05	0.08	27
Clustering	0 to 1	0.12	0.47	0.00	0.16	27
Transitivity	0 to 1	0.49	1.00	0.00	0.43	27
Gender (N)						27
Boys	10					
Girls	9					
Mixed	8					
Size of teams (N)	6 to 20	12.93	20	6	3.57	27
Response rate	37:100	74.5	100	37	20.02	27
Respondents						348
Weak networks						
Average degree	0 to (N-1)x2	7.47	17.23	1.09	4.00	30
Average degree, weighted	Average degree/N-1	0.66	1.43	0.09	0.36	30
Centralisation, degree	0 to 1	0.33	0.47	0.13	0.09	30
Clustering	0 to 1	0.47	0.86	0.00	0.21	30
Transitivity	0 to 1	0.55	1.00	0.00	0.19	30
Gender (N)						30
Boys	11					
Girls	11					
Mixed	8					
Size of teams (N)	6 to 20	12.90	20	6	3.40	30
Response rate	37:100	78.5	100	36.7	19.3	30
Respondents						387

[†]Number of members in the group minus 1 multiplied by two: Each member might have a relation to everyone else in the group, except for oneself.

new e-mail reminder was sent once a week. We registered responses as *missing* if the survey was not filled out after three e-mail reminders (Table 1).

Operationalisation & measures

We study two types of networks in this article. *Strong networks* are close, demanding and intimate, and they are operationalised with a question: 'With which members of the group do you usually share [a] hotel room or sleep next to during away games or competitions?' This points to special occasions away from home, and we assume that the choice of persons with whom our respondents share these experiences point to important social relations; we assume they will choose others they feel close to or care for on this question. Sharing a room is a reciprocal situation that involves at least two persons. Since the purpose is to find strong relations, we only include the relations where actors nominate each other.

There are three difficulties with this question. First, it could be that the selection of roommates is decided by others, e.g. the coach. In most cases, this person would probably select persons who are already close; however, in some cases, this person may want to bring people together who otherwise would not seek each other out. We assume that organising social relations would be more relevant and feasible for younger athletes and that our respondents are old enough to choose roommates by themselves. Second, it could be that linking strong relations to travelling is less relevant for some teams where travelling is not normal. This does not rule out that teams who do not travel do not have strong networks, but the operationalisation could lead to an underrepresentation of strong relations in some of the teams. In an attempt to account for this potential bias, we chose to include only the strong networks that had a minimum of one mutual dyad in the strong network. Three networks did not fulfil this criterion and were thus excluded from the analyses. Third, our operationalisation is sports-specific, and a more general operationalisation could perhaps have given a different view of the strong networks.

Weak networks consist of more easy-going and less committed interactions: 'Who do you usually talk to during breaks in practice sessions?' These situations are reciprocal because they consist of two-sided, verbal, non-demanding, non-intimate communication, where people take turns talking, listening and answering. We assume that our athletes will talk to others with whom they have good social relations and will avoid talking and listening to those whom they dislike. Interactions will be influenced by temporal and spatial factors, and since weak relations are less demanding than strong relations, the sample of potential others is larger. Athletes responded to both these network questions by selecting names from the name rosters; they were free to mark as many team members they wanted on both network questions. Since both sharing a room and talking together in practice are situations that involve at least two persons, we excluded non-mutual dyads, where one person selected the other, but the other person did not respond. Thus, all analysed networks consist of reciprocal, undirected dyads.

We focus on average degree, centralisation and clustering in groups of networks. *Average degree* tells us how many social relations members of each team have on average (Wasserman & Faust, 1994, p. 181). Since the number of social relations will depend on the

size of the team (*n*) (i.e. the more team-mates, the larger possible relations), we operate with a weighted average degree measure: (average degree divided by ($n − 1$)).

Centralisation shows the distribution of relations on each team: i.e. whether some members have more relations than others. We use the most common measure of degree centralisation, which builds upon the simple idea that people with many connections are central (Borgatti, 2005; Prell, 2011; Wasserman & Faust, 1994). There is a large body of literature on subgroups and social cohesion in networks, and we have chosen to focus on *clustering*—the degree to which athletes in teams tend to come together and form subgroups in networks (Borgatti et al., 2013, p. 156). Clustering is based on triplets and triangles. A *triplet* consists of three nodes that are connected by either two (*open triplet*) or three (*closed triplet*) ties. A *triangle* consists of three closed triplets, one cantered on each of the nodes. Clustering measures the number of triangles connected to each actor in the network divided by the number of triplets surrounding the actors. The average cluster coefficient for each actor gives the cluster coefficient for the entire network.

To study our suggested social mechanisms directly, we look at *transitivity*. Transitivity tells us the tendency of actor *a*, who is related to actor *b*, to be linked to actor *c* if *b* is also linked to *c*. To measure transitivity, the number of observed triangles in the graph are divided by the total number of connected triples of nodes. Since each triangle contributes to three different connected triples in the graph, one cantered at each node of the triangle, the number of triangles is counted three times.

Software. We used R, an open source software, and the add-on package 'sna' to describe, visualise and analyse our data (Butts, 2008; Handcock, Hunter, Butts, Goodreau, & Morris, 2008; R Core Team, 2016).

Sample size and significance levels (SSS). Even though our study has a rather explorative character, we also want to compare network characteristics across groups. Since we only have thirty teams, only a few group differences are significant. To add some information on the potential for statistical significance for our analyses, we simulated what the significance levels would have been on larger samples (i.e. 20 to 1500). These estimations are based on the means and standard deviations found in our analyses comparing groups (e.g. strong and weak, girls versus boys). In Tables 2 and 3, we report the sample sizes needed for a significant finding ($p < .05$), given our empirical results.

Results

We first inspect and interpret the graphic representations of our two types of networks and some basic statistics. Next, we compare and discuss some of these statistical measures more systematically.

From Figure 1, we see that most of the teams have few strong relations. Some teams stand out and have more social relations (i.e. degrees), but only relative to size (and potential social relations). Teams 10, 12 and 25 have the highest weighted average degrees ('AD' in Figure 1): 0.4. Teams 13 and 22 comes next with a weighted average degree of 0.3. In many of the teams, however, we find few strong social relations. Teams 4, 12, 13 and 16 have the most hierarchical structures with a degree centralisation ('C' in Figure 1) between 0.3-0.4. The number of relations between members are more
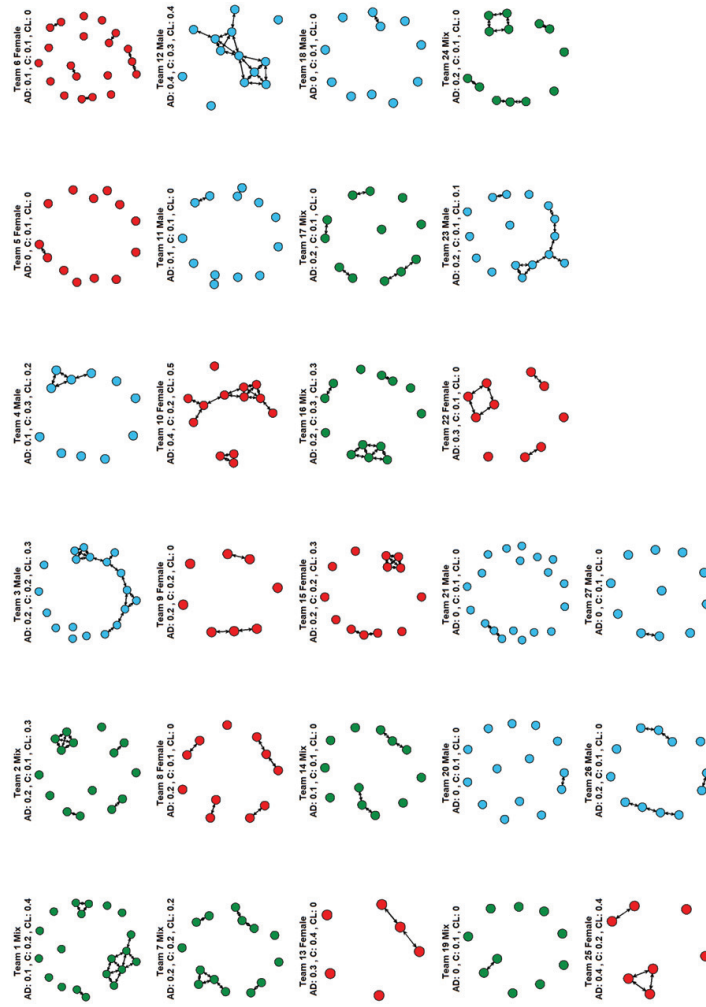
Figure 1. Strong networks. AD: Average degree (weighted); C: Centralisation; CL: Clustering.
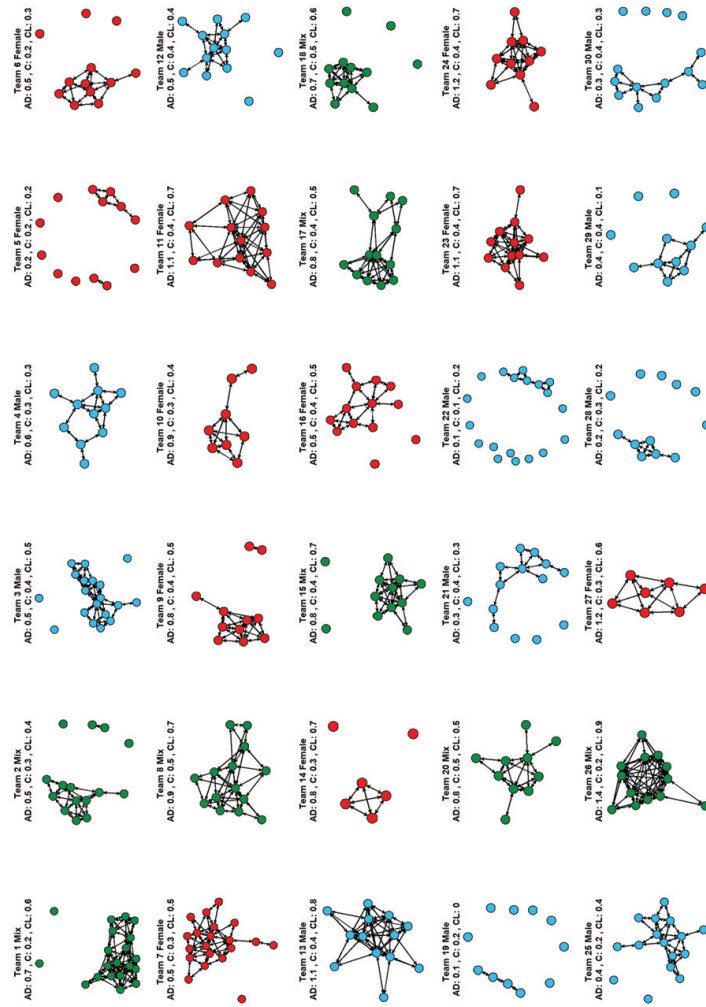
Figure 2. Weak networks. AD: Average degree (weighted); C: Centralisation; CL: Clustering.

consistent in the rest of the teams, as indicated by low degree centrality (0.1 and 0.2), and are, accordingly, less hierarchical. Teams that do not have any clustering are almost totally fragmented and have many isolates (i.e. Teams 5, 6, 13, 18, 19, 20, 21 and 27).

The weak networks in Figure 2 obviously have more relations than the strong networks and, thus, are denser. From mere observation, however, it is difficult to have well-founded opinions on both degrees and centralisation in these networks. Even though they all look dense, there are differences between them when we compare (weighted) average degrees. Average degrees range from a high of 1.4 (Team 26) to 1.2 (Teams 24 and 27); in contrast, Teams 19 and 22 have the lowest scores (0.1).

Next, we see that degree centralisation (Figure 2, 'C') for most teams is somewhat higher than for the strong networks. In general, then, the relations in our weak networks are less evenly distributed than in the strong networks, even if the relations in the weak networks appear more evenly spread out. Although there are also substantive differences when it comes to centralisation of our weak networks, the variation is smaller than that for strong networks. As with centralisation, it is difficult to interpret clustering by looking only at the charts of the networks; the statistics range from 0.9 for Team 26 to 0.8 for Team 13 to zero clustering for Team 19. These statistics show both the complexity and diversity of social structures in sports teams.

At an overall level, we find that the social relations within teams of athletes are both numerous and diverse. First, there is an important distinction between types of networks; some are strong (i.e. closer and more intimate) and some are weak (i.e. more superficial and easy-going). We find that most of our teams contain both strong and weak networks, and that there are far fewer weak social relations than strong social relations. Second, we also see that, within each of these categories, there are large variations. At this first step, therefore, we have identified a diverse and complex set of social structures within sports organisations and described that set of structures through their number of degrees, centrality and clustering structure.

Average degree shows the basic propensity for relations to develop across types of networks and gender. Members of our 30 teams have, on average, 4.81 social links to or from other members of their teams (weighted average degree is 0.43). For weak networks, average degree (weighted) is 0.66, showing that propensity for development of relations is markedly higher than in the strong networks, where the weighted average degree is 0.16 (see Table 2). This finding confirms H1, where we assumed that propensity for establishing relations characteristic of strong networks would be lower than that for weak networks. Furthermore, average degree is higher in girls' teams (0.54) than in boys' teams (0.27), thus rejecting H2, which stated that average degree would be higher in boys' than girls' networks. Yet, this effect is more complex if we check for gender differences in strong and weak networks separately (Table 3). The gender differences are most prominent in the weak networks, where average degree is higher in girls' teams (0.79) than in boys' teams (0.42) supporting H3. Average degree is also higher for girls' than boys' strong networks (0.22 versus 0.13), an indication that females have a higher propensity than males for establishing social networks. This is a refinement of H2, yet it is also a partial confirmation of how the interaction between gender and network strength might play out.

Table 2. Average degree in all networks, comparison of network characteristics by gender, and comparison of networks characteristics by network: means (standard deviations), F-statistics and p-values.

	Comparison of teams in all networks: Gender							Comparison of teams: Strength of networks				
	All teams	Girls' teams	Boys' teams	Mix teams	F statistic	p-value	SSS	Strong network	Weak network	F statistic	p-value	SSS
Average degree	4.81 (4.12)	5.11 (3.88)	3.45 (3.21)	6.22 (5.06)	2.23	.123	120	1.86 (1.21)	7.47 (4.00)	53.65	.000**	<20
Average degree W	0.43 (0.37)	0.54 (0.39)	0.27 (0.26)	0.50 (0.40)	4.00	.028*	60	0.16 (0.11)	0.66 (0.36)	52.97	.000**	<20
Centralisation, degree	0.25 (0.12)	0.26 (0.11)	0.23 (0.13)	0.26 (0.14)	0.30	.740	750	0.16 (0.08)	0.33 (0.09)	54.48	.000**	<20
Clustering	0.31 (0.26)	0.35 (0.27)	0.22 (0.21)	0.37 (0.28)	2.20	.126	120	0.12 (0.16)	0.47 (0.21)	49.25	.000**	<20
Transitivity	0.52 (0.32)	0.51 (0.35)	0.51 (0.32)	0.57 (0.31)	0.12	.881	1110	0.49 (0.43)	0.55 (0.19)	0.488	.489	980

*sign. at $p<.05$; **sign. at $p<.001$.
SSS: approximate sample size giving significance level = .05.

Table 3. Comparison of differences in network characteristics by gender in strong and weak networks respectively: Means (Standard deviations), F-statistics and p-value.

	Strong network						Weak network					
	Girls' teams	Boys' teams	Mix teams	F statistic	p-value	SSS	Girls' teams	Boys' teams	Mix teams	F statistic	p-value	SSS
Average degree	1.99 (1.20)	1.61 (1.52)	2.02 (0.83)	0.26	.774	480	7.66 (3.40)	5.13 (3.48)	10.44 (3.69)	4.9	.02*	30
Average degree W	0.22 (0.12)	0.13 (0.12)	0.16 (0.05)	1.47	.261	90	0.79 (0.36)	0.42 (0.29)	0.83 (0.27)	6.8	.007*	30
Centralisation, degree	0.18 (0.09)	0.15 (0.09)	0.16 (0.05)	0.22	0.800	420	0.33 (0.08)	0.31 (0.10)	0.37 (0.10)	0.62	.549	150
Clustering	0.13 (0.21)	0.10 (0.14)	0.14 (0.15)	0.13	.871	900	0.53 (0.17)	0.33 (0.22)	0.60 (0.15)	5.5	.01*	30
Transitivity	0.39 (0.48)	0.60 (0.40)	0.46 (0.42)	0.54	.592	240	0.61 (0.17)	0.42 (0.20)	0.65 (0.11)	5	.02*	30

* sign. at $p<.05$.
SSS: approximate sample size giving significance level = .05.

Table 2 also shows that degree centralisation, as expected (H4), is higher in weak networks than in strong networks (0.33 vs. 0.16), meaning that relations are more unevenly distributed in weak than strong networks. In terms of gender, our expectations (H5) of boys' networks being more hierarchical than girls' networks is not supported; though the difference is small overall, girls' networks (0.26) are more centralised than boys' networks (0.23). Looking at gender differences and whether they depend on strength of networks, we find (Table 3) that there are no clear gender differences for strong networks: Girls' social structures are more hierarchical than boys' social structures (0.18 versus 0.15). From these statistics, it appears as if the gender differences assumed in our theory are most significant in the weak networks. Specific-gender socialised networks are most prominent in the most common social interactions in athletes' daily lives at practice. Otherwise, gender differences are less distinct.

For our sixth hypothesis, we assumed that strong networks would be more clustered than the weak networks. Results in Table 2 show, contrary to our assumption (H6), that weak networks cluster more than strong networks: 0.47 versus 0.12. Girls' teams are more clustered than boys' teams (0.35 versus 0.22), supporting H7. Contrary to our expectations in H8, we see in Table 3 that the difference in clustering between girls' and boys' teams is largest in the weak networks: 0.53 versus 0.33. There is close to no difference in clustering between the strong networks. The tendency to transitivity is similar in both strong and weak relations and in both girls' and boys' networks (not supporting H9).

Our sample is relatively small ($n = 30$ for weak networks, $n = 27$ for strong networks). The Approximate Sample Size (SSS) in Tables 2 and 3 indicates the estimated sample size (based on the observed values) that will give findings at significance level 0.05. The SSS is, in most observed values, higher than 30; therefore, even though several findings are statistically significant, we have not commented on statistical significance. Our endeavour at this stage is more exploratory—to investigate what the social structures of sports teams look like and how they tend to have gendered patterns—rather than giving final and generalisable answers.

Discussions and conclusions

The first aim of this study has been to describe the social relations between young athletes: What do the social networks of various sports teams look like? The second aim has been to investigate how and why these networks might differ between girls and boys.

Our social networks were described through three measures. We looked at how many social relations members have with each other in each team (i.e. average degree); how these relations are distributed and how centralised and hierarchic the networks in each team are (i.e. degree of centralisation), and the extent to which sports networks are clustered. Moreover, assuming there are different types of social relations inside sports teams—some more serious, close and demanding, some less so—we chose to differentiate between strong and weak networks. Our study, then, consisted of (i) a description of the social networks within 30 Norwegian youth sports

teams based on these measures and network types and (ii) an analysis of how and why networks differ by gender.

On a first, descriptive level, we find that the sociability of sports teams is salient and obviously matters for many people, but also that it differs very much between teams and based on strength of network and gender (see Figures 1 and 2). In the weak networks, all athletes are at least linked to one co-athlete, and in some clubs these weak links are very dense (i.e. maximum 17 links per member); on average, an athlete has 7 to 8 weak social relations. For the strong networks, most teams are much more loosely connected, and many athletes are isolates who seem to lack intimate relations to their co-athletes; other teams have more sustainable, stronger social networks. In short: All teams contain at least a minimum of sociability; some teams are tightly and densely structured, and most are somewhere in between. This implies that sports teams probably play very different roles when it comes to fulfilling the many social visions ascribed to them: how participation is experienced, how inclusive they are, how structures contribute to performance and how they are conducive to social capital. We also find significant differences in centralisation: the weak networks are more centralised than the strong networks and girls' networks are slightly more centralised than boys' networks. As to clustering, the overall impression is that weak networks are more clustered than strong networks and girls' weak networks are more clustered than boys' weak networks.

As background for the investigation of gender differences, we presented some common stereotypes about girls and boys (e.g. girls being more intimate, close and committed in their social relations than boys). Next, we linked these assumptions to our network measures—average degrees, centralisation and clustering—and asked whether boys' teams had more social relations (because they invest less in each relationship), were more hierarchical (because they engage in their relations without necessarily expecting them to be reciprocated) and were less clustered (because they had more superficial relations).

Our analyses provide a more complex and—in part—contrasting picture. In terms of number of social relations (average degree, weighted) girls have more social relations than boys. Controlling for strength of the networks, we find that most of these gender differences are found in the weak networks, where girls are clearly more social (quantitatively) than boys. We assumed that socialisation makes girls' social orientations more intimate, caring and costly than those of boys, and we expected boys to have a higher propensity for establishing social relations than girls because they put less into their social relations. Given the opposite results (i.e. girls have more easygoing social relations), we must adjust our theoretical assumptions. It could be that girls' propensity (i.e. a yearning for social relations) is higher than we assumed—so much higher than boys' propensity that it dominates the cost-dimension, which we overvalued: There is more to the driving force of propensity than the cost of establishing failed social relations. Smaller differences in the strong networks could result from the fact that such close social relations are so important and existential that they are less vulnerable to the social propensity-inclinations and less concerned with costs and, hence, less different.

For centrality, we assumed that gender socialisation would lead girls to invest more in reciprocated relations than boys and, accordingly, that boys' social networks would be more centralised and hierarchical than those of girls. We do not find this tendency in either the strong or weak networks.

For subgroups, we assumed that girls' more selective approach to their social partners would lead to more clustering, especially in strong networks. We found that girls' networks do cluster more than those of boys. There are clear differences when controlling for strength of networks: There is more clustering both in girls' strong and weak networks, but the difference with boys' clustering is largest in the weak networks. The first finding (i.e. that girls are more selective and their networks, hence, more clustered, is in line with our assumptions: Socialisation leads girls to be careful. Why is the difference in clustering between girls' and boys' teams largest in the weak networks, where girls also have a higher propensity for social relations? The reason is probably related to the positive relationship between propensity for social relations and clustering; thus, when girls and boys develop networks, girls' networks will generally consist of more relations and be more clustered. In addition, because the propensity for social relations is higher in weak than in strong networks, the difference in clustering become most visible between girls' and boys' weak networks.

All in all, we have provided an intriguing though complex picture of what social networks might look like in teams within sports clubs, how they vary by gender, and what might help explain these findings. Our study has, as a first effort to grasp the social structures of grassroots youth sports, several obvious shortcomings. In future studies, there are many opportunities for improvement.

First, when conducting an original empirical study of this type, we have focussed exclusively on the network level, but future studies could and should include more individual attributes. It is possible to focus on other contexts: different nations or regions, or urban versus rural clubs. Laterally, we could compare sports teams to other types of organisations. A special case for study would be whether social relations outside sports are decisive for relations within sports: Do social networks within sports result from attending the same schools rather than from taking part in sports?

Second, our data do not give the opportunity to answer the questions of how variation in network structures impacts the most common questions within the social-network-organization discourse. Future research should look at how individual experiences, group cohesion, performance levels and social capital affect outcomes.

Third, even operating on the network level as we have, we could have included other measures. For example, an interesting discussion of which measure of centrality is most useful (Borgatti, 2005), within a wider spectrum of such measures, could have revealed different stories about centralisation.

Fourth, other types of operationalizations are possible. We chose to apply two of the most-used types of social networks (i.e. weak and strong) and two corollary questions to operationalise them. We could have opted for other types or nuances and different operationalizations. Especially our operationalisation of the strong networks could be questioned, and an operationalisation of strong networks as used by Lusher et al. (2014) could have yielded different results.

Fifth, there is the question of the sample. On the one hand, these types of data collection are costly and complex, and they will probably always be smaller and more convenient than optimal because such studies usually make contact through a club and a coach to access the players and the information (i.e. names) that are prerequisites for network studies. This approach will inevitably result in a mixture of strategic sampling and snowball sampling. We think we have achieved a sound variation in our sample, but it is a convenience sample that could be improved if more resources were available. What is controlled and a matter of choice, however, is the composition of the samples (e.g. gender, sports, level of competition).

Sixth, there are more social mechanisms (e.g. similarity) for which we could control, both as to social networks and as to individual attributes explaining network structures. Finally, the routine challenge (Emirbayer & Goodwin, 1994) of a better understanding of content, meaning and action—not only structures—is also valid for this study: How do boys and girls actually understand their social networks within sports?

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Article 2

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Article

Friends in Sports: Social Networks in Leisure, School and Social Media

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Article

Friends in Sports: Social Networks in Leisure, School and Social Media

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Abstract: Young athletes value their social relations in sports, and these social relations can have consequences when it comes to joining, continuing, and quitting sports. Yet the important question of how social relations in sports develop has not yet been adequately answered. Hence, we investigated how athletes' social relations in sports depend on social relations outside of sports: in leisure, school, and social media. A total of 387 athletes (aged 16–19) from 30 Norwegian sports groups completed a survey on electronic tablets. We asked how social relations in leisure, school, and social media—through the social mechanisms of contact, homophily, and contagion—influenced social relations in sports. We also controlled for the effect of exercise frequency and duration (years) of contact in sports. Exponential random graph modelling (ERGM) analyses showed that first and foremost, relations from social media and leisure, but also school networks and exercise frequency, influence sports networks. This study shows that social relations in sports are diverse and depend on social relations outside sports. We discuss how this has 'counterintuitive' consequences for sports participation, particularly the importance of supporting athletes' social relations outside of sports for the strengthening of social relations within sports when addressing challenges concerning recruitment, continuation, and dropout from sports.

Keywords: social networks; friends; youth; sports; school; leisure; social media

1. Introduction

Both quantitatively and qualitatively, sports are among young people's important social arenas [1–3]. In trying to understand the meaning of young athletes' sports participation, a substantial amount of research shows that the social relations and social experiences young people have in sports are among their main reasons for taking part in sports [4,5]. There are also several studies on what these social relations look like [6,7] and the consequences of the qualities of social relations in sports. Research shows that social relations matter for how sports are experienced (fun and enjoyment) [8], feelings of belonging and integration [9–11], social capital [12–15], health and lifestyle [16,17] and the levels of participation in and dropping out from sports [4,18–20]. Yet, commenting on the situation of social network studies in general, Small claims that ' . . . in their devotion to studying the consequences of social ties, many researchers have taken for granted the process from which ties arise' ([21], p. 8). We argue that this observation is also valid for sports studies, and accordingly, in the current study, we investigate the consequential issue of how the often-praised social relations in youth sports develop.

Studies from various social and organizational fields have shown that recruitment to, participation in, and attrition from organized activities are not primarily about individual characteristics and motives but are first and foremost about social networks and opportunities for action. The existence of conducive, vibrant, and inviting social networks are prerequisites to organizational life [22,23]. To start or continue in sports, there should be an opportunity to meet other people to do sports with, and there should be some kind of (continued) social encouragement to keep utilizing this opportunity: ' . . . networks do not

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arise out of thin air. People's networks emerge over the course of their routine activities, in the everyday organizations where those activities take place'. Hence, in the current study, we adopt a holistic view of young athletes' social lives and ask how the quantity and quality of young athletes' social relations in sports depend on participation in social arenas outside sports.

The present study contributes to previous research in two ways. First, we describe young people's social relations in sports as social networks. Although several scholars have argued for the usefulness of studying social networks in the field of sports [6,24,25], there is still a dearth of network research on the social aspects of sports groups [7]. Second, and more importantly, we investigate how young people's social relations in sports develop and how the development of athletes' ties are connected to their social ties outside of sports.

To guide our analyses and interpret our findings, we present a theoretical framework built on three pillars. Based on the philosophy of sports, we first show how sports have inherent qualities conducive to friendship and the development of social relations. We subsequently supplement these insights with three social mechanisms from the social network literature: contact, homophily, and contagion [26]. To grasp the social context of sports, we focus on three social arenas that are key to most young people's lives: school, non-sport leisure, and social media. Third, considering the social characteristics of these arenas and the three social network mechanisms, we present a set of hypotheses for how participation in non-sports networks might matter for the development of social ties in sports.

To answer the question of how the youth's social relations in sports are influenced by social participation in other arenas, we start with an outline of the theoretical framework and previous research. Next, we present the data and methods. The results section has two parts. First, we present some basic statistics on what athletes' sports networks look like (degrees, density, centralization) and the extent to which they overlap (how many of those in sports that also share non-sport relations: school, leisure, and social media). Second, with the help of exponential random graph modelling (ERGM) analyses, we show how the strengths of social relations in youth sports depend on participation in non-sports networks. We conclude the article by providing a summary of our empirical findings and interpreting them more thoroughly in light of the theoretical framework. We also discuss how our findings have implications for some very much discussed topics in sports research: recruitment to, continuation in, and dropout from organized youth sports.

2. Theories, Contexts, and Previous Research

2.1. Sports' Inherent Social Potential

A common belief is that sports promote friendship and social relations. Jones [27] states that " . . . , sport seems to me to be especially conducive to friendship" ([27], p. 131). Why are sports valuable for social relations? A first and obvious answer is that participation in sports sustains interactions—physically and socially—at one place and at one time. Second, sports connect people with similar interests in a collective effort; they work together while doing something they care about. Next, the commonness and future-oriented nature of sports could, when fulfilled, pave the way for strong social relations. Sports have the potential to transcend ordinary everyday interactions and unite people in social experiences favorable to social relations. Accounts of such experiences have been conceptualized as flow [28], aesthetics [29], or religious experiences [30,31]. Hence, a basic assumption for our study is that sports provide fertile ground for social relations.

However, not all social relations in sports can have the elevated character described in this philosophical theory. The sociology of friendships has found that most individuals have a layer of social relations with only a few core ties (two to five people), a wider set of sympathy social relationships (15–17 people), and an even larger extended social network of around 150 persons [32,33]. That 93% of Norwegian youth take part in sports for shorter or longer periods also indicates that their social relations in sports should be diverse [1]. The high number of dropouts also points to variations in attachment to sports [19].

To grasp some of this diversity in social relations, we build on the seminal distinction between weak and strong networks [34]. On the one hand, sports prepare people for a type of close social relations, which we label strong sports networks. We assume that these relations are intimate, committed, and demanding. On the other hand, our discussions point to the prevalence of more superficial and less intimate and less demanding social relations within sports. We label these relations weak sports networks. As argued in the theories of "the strength of weak ties" [34], it is not that these weaker networks are necessarily less consequential—they might have important social functions and are, for our purposes, essentially different from the strong sports networks. Therefore, on top of a basic propensity for social relations in sports, we also assume that there are both tighter and looser social relations among athletes.

2.2. Social Network Analysis: Three Social Mechanisms

The purpose of our analyses is to sort out what matters in the probability of developing social relations in sports. To better address these queries, three social mechanisms from social network studies are pertinent.

First, contact theory states that people have to meet physically in space and time to develop social networks [35]. Sports are considered to provide a social environment that is conducive to such contact opportunities and is potentially a versatile place for developing social relations. Contact matters both for the development of relations within sports and for the way social relations outside sports influence social relations within sports. Contact theory also shows how we should expect social relations outside sports to influence social relations within sports: social relations in sports could be strengthened because athletes also interact in other arenas. Previous research supports this assumption, showing how coattending different social activities tends to strengthen friendships [36–38].

Contagion is a social mechanism describing the processes where exposure to resources flowing through networks—knowledge, emotions, goods, money, and so forth—influences human knowledge, attitudes, and behavior. In this way, contagion indicates that people meeting through certain networks will become more similar to each other [39]. For our study, contagion implies that athletes who spend time together outside sports in a non-sport network will tend to become more like each other, thereby potentially developing their social relations in sports. We also assume that some social arenas are more contagious than others because the interactions in these arenas have qualities that are more (or less) conducive to social relations [40]. We will return to contagion effects when presenting the social arenas.

Whereas contagion points to how influence occurs in social processes, a third network mechanism involves a selection effect: homophily. The idea is that people with similar characteristics, interests, and experiences attract each other and tend to establish social relations [41]. In our case, we expect two types of effects of the homophily mechanism. First, similar people, regardless of having met previously, will be attracted to each other when they meet in sports. Second, people who have participated together in one social arena will tend to seek each other out in new social arenas because they are similar regarding this shared previous experience. In short, the effect of homophily in sports will depend on having another arena as a common reference, or more consequentially, having common experiences in other arenas. We will specify our expectations when we discuss the particularities of our chosen social arenas in the following sections.

2.3. Social Arena Mechanism: Voluntariness and Exclusiveness

In this section, we describe the social arenas included in the study and discuss how the characteristics of social relations in these arenas have implications for the development of social relations in sports.

Sports. The sports clubs in our study are voluntary organizations and part of the Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF), an umbrella organization that organizes 55 national sports federations, 19 regional sports

federations, and approximately 12,000 local sports clubs. Even though the NIF is partly funded by public resources, voluntary work is the most important resource for most Norwegian sports clubs.

The fact that youth sports themselves are voluntary as well as part of the voluntary sector has consequences for social relations in sports [42]. Being affiliated with sports clubs is voluntary, whereas participation in most other social arenas (family, school, work, etc.) is compulsory (or at least, less voluntary). Hirschman's [43] theory on exit, voice, and loyalty captures a social mechanism that is relevant for this voluntary–compulsory distinction. When one is free to join and exit an organization, staying with the organization implies a certain commitment to the group and an obligation towards co-members. Otherwise, one would leave. This is an argument in favor of the idea that social relations in sports are more committed than social relations in less voluntary settings.

For Norwegian sports, the dominant policy aim is "sports for all" [44], which builds on a vision to create and sustain an inclusive social environment with equal opportunities for all young people to participate in sports. At first glance, empirical research indicates that these policies are successful, and accordingly, that being a member of sports clubs is not very distinctive or exclusive. Dropping out from sports, however, occurs at a high rate when the athletes reach the age of our respondents (16–19) [45], so remaining affiliated with sports at this age would at least reflect a certain devotion and dedication to sports. As a second social-arena-specific mechanism, we suggest that the more exclusive a social arena is, the more conducive it is to the development of social relations.

Leisure consists of a broad range of formal and informal free-time activities—from the highly organized (as sports) to the very free activity of just meeting friends regularly at or outside home. Recent research also shows that this is an important social arena for most young people, both quantitatively [46] and because it has qualitative implications for young people's lives in general [47]. We assume that social interactions during one's free time is voluntary, and because most of these activities are less prevalent and carried out in smaller groups than sports (as well as school and social media), they are also more exclusive. This implies that on average, leisure activities represent social arenas conducive to building social relations. For the three social network mechanisms, leisure activities provide—although to varying degrees—a good deal of contact, they build on homophily (people show up to do what they like with others who like the same activities), and they are contagious. As such, many leisure activities are helpful from a social network perspective when it comes to developing social relations.

Schools. Recent figures show that 97% of Norwegian youth enroll in upper secondary school the same year they complete compulsory education [48]. As such, for our respondents, school is not voluntary and not very exclusive; therefore, school theoretically plays a relatively weak role as a provider of stronger social relations. A fundamental difference between the roles of local school and local sports clubs is that school is compulsory, whereas sports are coupled with freely chosen activities [49].

For the social network mechanisms, schools provide high levels of contact, which support contagion: young people's continuous interactions over the years should contribute to social relations. The homophily mechanisms are probably relatively weak, especially compared with sports and leisure, where exclusivity makes for more similarly motived participants.

However, two factors suggest a more positive social role for schools. First, school life is important because of the quantity of time spent there and the consequences of school results on one's success later on in life [50]. Second, it is also the case that going to school often implies a type of identity marker. Hence, even though schools as social arenas lack some of the qualities that make them socially significant—almost compulsory and non-exclusive—there are also clear indications that they could be conducive to strong social relations.

Social media. In today's network society, the use of social media for connecting with others has exploded, and for many young people, it is a massive and time-consuming part

of their everyday lives [51]. Close to all Norwegian youth in our targeted age group use social media for instant messaging, putting them at the top end in Europe when it comes to social media use [52]. Especially popular are instant messaging apps (e.g., Snapchat) designed for smartphones, which are more exclusive than, for example, Facebook. Because 'everyone' is (always) online and easily accessible, social media interaction has the potential to influence (i.e., strengthen or weaken) social relationships, including relationships outside social media. Social media is voluntary. However, social media is also inclusive, with a low threshold for participation. In sum, we assume that these characteristics imply low levels of loyalty to interactions in this arena; the exit logic does not really apply to social media. One could easily stay on without strong social commitments to others in this arena. Although the social mechanisms of contact, contagion, and homophily have a certain relevance for social media interactions, the effects of such mechanisms are—because of the virtual character of interactions—probably weaker than in real life interactions. Thus, social media lacks exclusivity, and because of its lack of face-to-face interactions, it probably involves a high volume of low-intensity social bonds.

In short, we assume that sports have a high level of social potential. The organizational structure of sports—as a voluntary activity in voluntary organizations—also adds to the potential for such social qualities. On top of this baseline, we have outlined two sets of social mechanisms that indicate how social relations in sports depend on the social ties stemming from elsewhere. From the social network theory, we can see how social relations depend on and work through contact, contagion, and homophily. In our description of the social arenas included in the current study, we have shown how their voluntariness and exclusiveness prepare for different social relations and effects.

All the social relations we study reflect these social mechanisms to a certain degree, but they do so differently. We hypothesize that more frequent contacts in sports (H1: Frequency) and more durable contacts (in years) (H2: Affiliation) will lead to more social relations in sports. The qualities of the social relations in the leisure, school, and social media arenas differ in many ways, and we hypothesize that leisure is the most intense and exclusive social arena, having the strongest outside effect on social relations in sports (H3: Leisure). We further assume that social relations in social media have a stronger effect on sports' social life than school, which is the least voluntary and exclusive, yet we also approach the social media effect as a more open question (H4: Social Media). An important part of our study aims to show that not all social relations in sports are necessarily deep, intimate, or committed, and we assume that what we call strong social networks depends on non-sport social relations more than weak sports networks (H5: Weak vs. strong networks).

3. Materials and Methods

Data. We surveyed the social relations of 387 young athletes in 30 groups in sports clubs. Examples of groups are girls aged 16 playing handball in a club, boys aged 17 playing football, and an age group (often wider, e.g., 16–18 years) participating in cross country skiing.

The data collection started by contacting coaches from the first author's personal network, generally by phone. The coaches were informed about the aim of the project and were asked whether they and their team wanted to participate. We sent the accepting coaches a description of the research project and asked them to return a list of the athletes who wanted to participate. The coaches informed their athletes that participation was voluntary.

We surveyed the respondents on electronic tablets immediately after training sessions or social gatherings. Completion of the questionnaire took about 20 min. Absent athletes received the survey by email, followed by a reminder if the survey was not completed within one week. We registered respondents as missing if they had not completed the survey after three reminders. The final response rate was 74% (387 of the 518 athletes who consented to participate). The response rate (at the team level) varied between 37%

and 100%. The average team size was 12.9 (min. 6, max. 20, SD = 3.4). The final sample consisted of 46% girls (56% boys), with an average age of 17.1 years (SD = 1.5). The athletes belonged to 8 ski groups, 11 football groups, and 11 handball groups from 8 out of the 18 Norwegian counties. With respect to gender, 11 groups were exclusively boys, 11 were exclusively girls, and the 8 ski groups were all mixed gender. All ethical aspects of the study were approved by the Norwegian Centre for Research Data (NSD).

Measures. The weak sports network includes not very demanding and non-intimate social interactions, and we asked the respondents to select others they felt comfortable being with in everyday interactions: 'Who do you usually talk to during breaks in practice sessions?' We operationalized the strong sports network by asking the following: 'With which members of the group do you usually share a hotel room or sleep next to during away games or competitions?' This question points to close, intimate, and trustful relations. The school network captures social relations in the school context: 'Which team members attend or have attended the same school as you?' We mapped social media networks by asking the following: 'Who do you usually send pictures or video snippets to (e.g., with Snapchat)?' Leisure is a wide category, and young people vary in how they spend their free time. Accordingly, we included a broad range of activities and asked, 'Over the last two weeks, with whom of your team members have you done the following activities?' The respondents answered this question by selecting from a list the co-athletes with whom they had 'been shopping'; 'seen sports, either live or on the TV'; 'been out eating'; 'been skateboarding, snowboarding, or taking part in other non-organized activities'; 'played computer/TV games'; 'visited at [co-athlete's] home'; '[co-athlete] visited me at my house'; 'hung out without doing anything in particular (e.g., been outside, at the mall)'; 'been hiking'; and 'visited the movies or theatre with'. We then used these measures to construct an index consisting of a matrix with a binary structure indicating whether the actors had met in one way or another. All networks are directed.

Analyses. We describe the strong and weak networks by measuring average degree, density, and degree centralization. Average degree counts the average number of social relations a member has on each team ([53], p. 181). Density is the number of social relations in the network divided by the number of possible social relations, which informs us about how connected the networks are ([53], p. 181). Centralization summarizes the distribution of relationships in the groups and functions as a measure of hierarchical structures, that is, whether some members have more relationships than others ([53], p. 180).

The data were analyzed using ERGM, which models each of the sports networks (weak and strong) as a function of their members' participation in non-sports networks. The method estimates the probability that sports team members develop social relations with their co-athletes, here taking into account the group members' basic propensity to establish social relations, the intensity and duration of their sports participation, and their participation in non-sports networks [54].

Our networks are binary; therefore, the interpretation of ERGM models is much like a logistic regression, with the main difference being that the unit of analysis is the ties between nodes (and not individual attributes). Thus, coefficients are the change in the log-odds' likelihood of a tie for a unit change in predictor.

In some of the groups, the school, leisure, and social media networks perfectly predicted the ties in the sports networks in the logistic ERGM regression models (e.g., all members of a sports network went to the same school). This is known as "separation" and causes maximum likelihood estimations to produce implausible results ([55], pp. 88–90). We handled this problem by adding a penalty term that shrank unrealistic values (the values furthest away from zero) from the maximum likelihood estimation towards zero [56]. The penalty term reduces bias and yields interpretable effect sizes. The drawback is that standard errors must be interpreted with caution because they arise from a bias deliberately placed on the maximum likelihood estimation. For the ERGM analyses of strong networks, we excluded three teams that had too few respondents and/or relations for the ERGM

models to produce interpretable results (model degeneracy) [54]. We used R [57] and the statnet package to analyze our data [58].

To control for model fit, we compared the Akaike's Information Criterion (AIC) values of our models to the null-models. Though there are no specific cutoffs for AIC, a smaller AIC-value signifies a better fit [59]. A total of 88% of the ERGM models (i.e., 51 of 57 models) with the chosen independent variables had smaller AIC values than the simple models, providing support for the chosen model.

4. Results

We studied social relations in 30 sports groups (Table 1). For each team, we investigated five types of relations between the athletes in the team, and we categorized these five networks as 'strong sports networks', 'weak sports networks', 'school networks', 'leisure networks', and 'social media networks'. Athletes with strong sports relations to their co-athletes are part of strong sports networks. Athletes with weak sports relations to their co-athletes are part of weak sports networks. In addition, we describe three sets of relations among the athletes in each team based on their relations to each other outside sports. Those within each team going to the same school belong to what we call a school network, teammates who share a leisure activity are part of a leisure network, and those athletes who also meet on social media constitute a social media network. Most athletes have relations of different types and qualities in relation to their co-athletes, so each athlete could be part of more than one network. For example, one athlete could have weak relations to ten of their co-athletes, strong relations to two co-athletes, and go to the same school as five co-athletes.

Table 1. Descriptive statistics of (i) network ties and (ii) proportion of overlap between networks.

	Strong Sport Networks					
	Range	Mean	Max	Min	SD	N
Size of teams	6:20	13	20	6	3.57	27
Ties per team	5:66	24	66	5	15.1	
Average degree	0.4:5.1	1.9	5.1	0.4	1.17	
Density	0.06:0.42	0.16	0.42	0.06	0.07	
Centralization	0.1:0.5	0.2	0.5	0.1	0.09	
Overlap with School networks	Ratio: 0:1	0.47	0.86	0	0.20	27
Overlap with Leisure networks	Ratio: 0:1	0.68	1	0.33	0.15	27
Overlap with Social media networks	Ratio: 0:1	0.74	1	0.40	0.18	27
	Weak Sport Networks					
	Range	Mean	Max	Min	SD	N
Size of teams	6:20	13	20	6	3.39	30
Ties per team	17:200	78	200	17	40.7	
Average degree	1.3:15.5	6.1	15.5	1.3	3.16	
Density	0.15:0.78	0.51	0.78	0.15	0.16	
Centralization	0.17:0.44	0.31	0.44	0.17	0.07	
Overlap with School networks	Ratio 0:1	0.45	1	0	0.26	30
Overlap with Leisure networks	Ratio 0:1	0.64	1	0.20	0.25	30
Overlap with Social media networks	Ratio 0:1	0.62	1	0.33	0.20	30

Note: M = Mean number of ties in network. Max = Maximum number of ties in network. Min = Minimum number of ties in network value. SD = Standard Deviation. N = Sample size: total number of sport teams.

In Table 1, we report the measures of four social network characteristics [53,60] (Borgatti, Everett, and Johnson, 2013; Wasserman and Faust, 1994) for the two sports networks. *Ties* shows how many relations there are in the networks, *average degree* shows how many relations each member has on average, *density* reports the proportion of realized relations of all possible relations in a network, and *centrality* provides a measure of how evenly the social relations in a network are distributed. Finally, we report the overlap between the two sports networks and each of the non-sports networks; for example, an overlap of 0.47

between strong sports networks and school networks means that 47% of those in the strong sports networks also go to school together.

For the first question on what the social relations in sports groups look like, the answer is that these networks are diverse when inspecting the most common social network measures: in the number of ties, average degree, density, and centralization. For athletes with strong social relations to their co-athletes, the groups contain 24 of such strong ties on average, varying from 66 at most, to five at a minimum. With an average number of 13 members in the group and an average of 24 strong ties in each group, each member has about two strong social relations (average degree). The strong sports networks are not dense (0.16) and not very centralized (0.2). This indicates that these strong sports relations are rare, exclusive, and evenly distributed. As such, these strong relations could be interpreted as a type of 'core ties' [32].

For the weak sports network, the average number of weak relations is 78, but they vary widely from 200 to 17. With an average number of 78 weak ties per group and (the same) 13 persons on average in each group, each person on each team has about six weak social relations (average degree). The weak sports networks are (reasonably enough) denser than the strong sports networks (0.51 vs. 0.16) and are more centralized (0.31 vs. 0.20). The weak social relationships are more widespread, less evenly distributed, and closer to qualifying as 'sympathy ties' [32].

A second finding from Table 1 is the substantial overlap between the sports networks and the non-sports networks. On average, 47% of those who are part of the strong sports networks in the groups also go to the same school. Similarly, 68% of the strong sports network members also have ties to each other in leisure networks, and 74% have ties in social media networks. For the weak networks, the numbers are somewhat lower: 45% for school, 64% for leisure, and 62% for social media.

The question becomes how relations outside sports (school, leisure, social media) have consequences for the social relations within sports. However, overlaps in and of themselves do not prove that what happens outside sports has consequences for what goes on inside sports. ERGM modelling can help here and shows the probability of a social tie in a network depends on a set of characteristics inherent to the network (e.g., in a dense network, the probability of having a tie is higher than in a sparse network, regardless of who one is) and, as is our interest, how the probability of sports ties depends on factors exogenous to our network (e.g., if the social networks in sports depend on athletes going to school together). We ran 57 ERGM models: analyses of 27 strong and 30 weak networks.

Instead of presenting the results of all ERGMs in 57 separate tables, we have collected the regression coefficients for each of the independent variables for each type of sports network (weak and strong) in 10 figures. The first Figure 1a–e present the effects of each of our five independent variables (in Figure 1a, this is the school network) on the probability of being part of each of the weak sports networks (controlled for other variables). Each of the dots in these figures represents the effect of the chosen variable for one specific team.

In Figure 1a–e, we find each sports team represented by a dot—the ERGM (regression) coefficient—and two grey lines indicating a confidence interval for this coefficient (± 2 standard errors). The vertical dotted grey line (zero line) shows a zero effect. Dots located on the left side of the zero line indicate that a coefficient for one specific group has a negative effect, and dots on the right side of the zero line show a positive effect. For groups with standard errors not crossing this zero line, effects are statistically significant (at 0.05% level). As an example, the bottom dot in Figure 1b shows that the effect of sharing leisure activities is positive for also being part of a weak sports network in one specific team, and this effect is statistically significant because the grey lines do not cross the zero line. Table 2 reports a meta-analysis summarizing the results in Figures 1 and 2: the means and standard deviations for the effects of each of the non-sports networks, and exercise durability and frequency for the weak and strong sports networks, respectively.
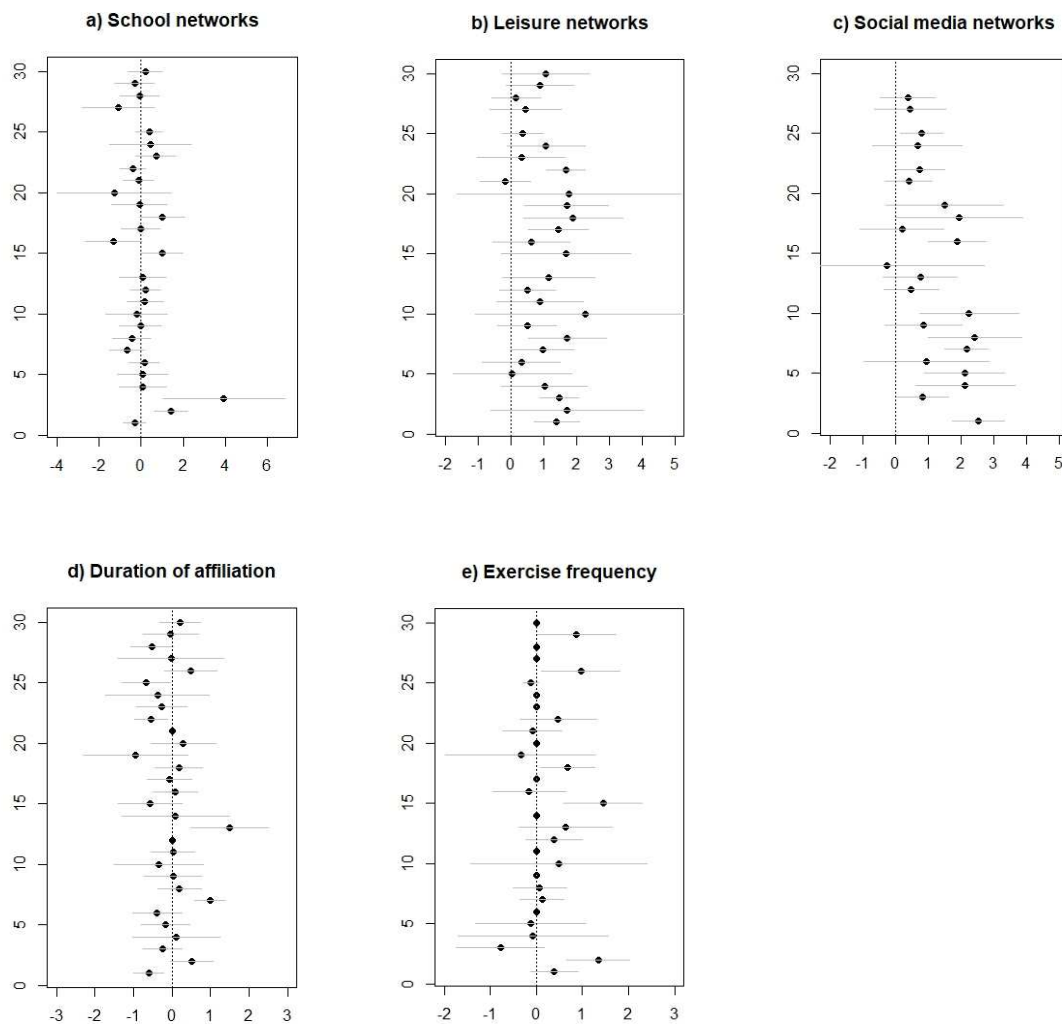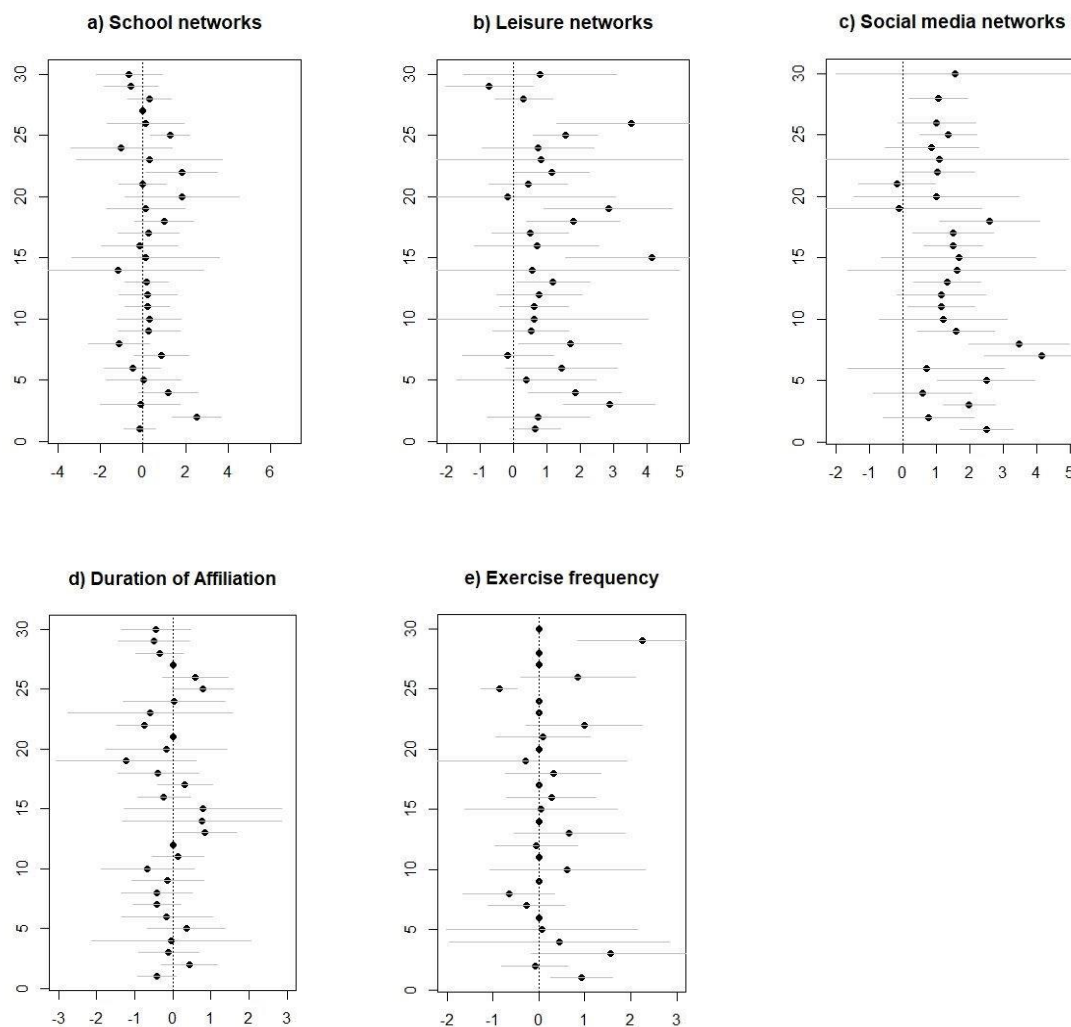
Figure 1. (**a**–**e**): Coefficients and standard errors (±2) for each of the independent variables in the weak network models.

Table 2. Average values for the ERGM coefficients and their standard deviation in the two sport networks.

	Weak Sport Networks		Strong Sport Networks	
	Mean	SD	Mean	SD
School Networks	0.13	0.57	0.25	0.82
Leisure Networks	1.04	0.61	1.11	0.87
Social Media Networks	1.20	0.46	1.46	0.77
Duration of affiliation	−0.04	0.36	−0.07	0.50
Exercise frequency	0.20	0.28	0.23	0.41

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Figure 2. (**a**–**e**): Coefficients and standard errors (±2) for each of the independent variables in the strong network models.

Starting with the effect of school networks for weak sports networks, we can see (Figure 1a) that the dots (i.e., coefficients) are close to and at both sides of the zero line, which is evidence of weak and non-systematic effects. This indicates that going to the same school is not very important for joining weak sports networks. For leisure networks (Figure 1b), there were two apparent differences compared with the effects of the school networks. First, almost all dots are to the right of the zero line, which indicates a positive and more consistent effect on weak sports networks. Eight of these coefficients are also statistically significant (at the p = 0.05 level), which further points to the importance of the effects of sharing leisure effects. Moving on to the social media networks (Figure 1c), we find all but one dot to the right of the zero line (i.e., positive effects), which means that being part of the same social media network is positively associated with tie development in weak sports networks. Compared with the effect of leisure networks, the dots are even farther to the right, which is indicative of larger effect sizes. Nine of these effects are also statistically significant at the p = 0.05 level. Comparing the weak sports networks models (Table 2), we find social media (1.20) has the largest effect as compared to leisure (1.04)

and school (0.13). For the activity in the sports group itself, we first see that the effect of time spent in the clubs—length of affiliation (Figure 1d)—is small and unsystematic. The dots are close to and on both sides of the zero line, yet there are also three significant positive effects (and no negative). For exercise frequency (Figure 1e), we see that most effects are low, but there are also some positive statistically significant effects, indicating that the frequency of exercise is somewhat more important for social networks within sports than duration.

For the strong networks, the effects have similar patterns (Figure 2a–e). The school network has small and non-significant effects, and leisure and social media networks have mostly positive effects, many of them being statistically significant. The ranking of the effects is the same as that for weak network: social media has the strongest effect as compared to leisure and school (Table 2).

Our hypotheses on the effects of the frequency of contacts within sports (H1: Frequency) and the duration of contacts (H2: Affiliation) are mostly confirmed for frequency, whereas the effects of duration are less clear. For the ranking of importance of the social arenas outside sports, we assumed that leisure would have the strongest outside effect on social relations in sports (H3: Leisure). The leisure effects are strong, but not the strongest; therefore, H3 is nuanced. Next, our hypothesis that social relations in social media would have a stronger effect on social relations in sports than school (H4: Social Media) is supported: social media is more important than school networks, but the results also point to social media as carrying more weight than leisure networks for social relations in sports. What these findings imply, however, is less apparent. An important purpose of our study is to show that even though the social significance of sports is often emphasized, not all social relations in sports are necessarily deep, intimate, or committed. We have distinguished between weak and strong sports networks and assumed that strong social networks depend more on non-sports social relations than weak sports networks. This hypothesis (H5: Weak vs. strong networks) has been confirmed.

5. Discussion

To understand how sports provide functional social arenas for young athletes, three questions need answers: What do social relations in youth sports look like? How do these relations come about? How do these relations have consequences? The main purpose of our study—and the question least investigated so far in previous research—is the second question of what drives the development of social networks in youth sports. Our approach has been to focus on one such driver of social relations in sports: how social relations outside sports matter for the social relations within sports.

So far, we have only referred briefly to the third question about the consequences of social relations in sports, yet we will end our study with a discussion of how our results on the development of sports networks matter for one of the core outcome questions for sports scientists: How do social relations in and around sports matter for participation in sports? For grassroots sports, an obvious starting point is to assume that the social side of sports matters for participation: starting with sports, continuing with sports, and dropping out of sports.

For starting sports, it does not make too much sense to include our topic of relations between outside and inside sports. We know, however, that previous research has shown that recruitment to sports and other organizations relies less on individual characteristics than social networks: family, friends, school, and work [22,23]. Thus, it seems reasonable that social network mechanisms—contact, contagion, and homophily—also matter for how social relations outside sports influence recruitment to sports: meeting someone at school (contact), finding common ground with some new acquaintances (homophily), and being influenced, for example, by the new friend's brother, who is already active in sports (contagion) might lead two friends to look for a sports club.

Research reports that most athletes appreciate the social aspects of sports [18,61]. Combining this well-known finding with our result—that social relations in sports depend

on social relations outside sports—the present study has provided important new insights into the topic of how social networks influence sports participation, both by giving access to and using the resources embedded in the social networks [15]. It seems reasonable to assume that supporting and helping athletes with meaningful social relations outside of sports while also participating in sports increases the probability of continuing with sports. In short, to keep youth in sports, in addition to organizing high-quality sports, one should also support their social networks outside sports and perhaps do so in more than one type of non-sports network. For sports clubs, this can be done in several ways: the clubs can take the initiative for non-sports activities, they can link up with other relevant non-sports voluntary organizations, they can cooperate more closely with schools (schools and sports clubs are often in geographical and demographic proximity to each other), and they can facilitate social meeting rooms designed for group members on social media platforms.

Keeping adolescents in sports is very much the same as keeping them from leaving sports; for dropout cases, many of the same issues matter as for continuing—having a good time in sports requires vibrant social relations inside sports, and these social relations benefit from the same people being together outside sports. Furthermore, having social relations outside sports could, apart from keeping people in sports, help handle the dropout that will inevitably occur for a lot of young athletes. For many, ending sports will be a stressful experience, and having outside networks could be of help in securing a dignified exit from sports. This goes for grassroots sports [62], but it could also be worth considering for elite sports, especially for those involved in talent development schemes [63–65].

Taken together, the answer to recruitment to sports and the maintenance of high and enduring participation rates in sports is to emphasize social relations both inside and outside sports because they are reciprocally supportive. There could be a risk of promoting young athletes' social lives beyond sports because attractive social relations outside sports could make sports a redundant social arena, leaving people feeling satisfied and sufficient with their non-sports social relations. Given the interplay between social relations in various arenas, this is a risk that sports officials should accept. Measures of participation in sports—durability and exercise frequency– were primarily included as control variables, but the frequency of participation has a particular effect that reminds us of the fact that the quantity and quality of sports participation are important to realize the social potential laid out in the philosophy of sports. In summary: participating in more social arenas could be individually satisfying and organizationally useful.

6. Conclusions

In Norway, 93% of youth take part in sports for longer or shorter periods, and a primary reason for doing so is the social outcomes of sports: meeting and making friends. Knowledge of the social aspects of youth sports then becomes pivotal. We touched on three questions, described the social structures of youth sports, and discussed some of the implications of (good) social relations for participation in youth sports. Our main question was the most neglected of the three questions: How do social relations in sports develop? Our answer to this question focused on how social relations in non-sports activities matter for the social relations in sports.

Social relations between athletes are diverse, and as a start, we distinguished between those having weak and strong relations with their co-athletes. We studied these relations considering athletes' social relations outside sports: whether they go to the same school, whether they share one or more leisure activities, and whether they are together on social media.

We assumed that there are forces inherent in sports and the way sports are organized in voluntary organizations that support establishing social relations in sports. When further studying how social relations in sports develop, we depended on three social mechanisms common in social network studies: contact, contagion, and homophily. We also considered the voluntariness and exclusiveness of school, leisure, and social media as mechanisms that would influence social relations in sports.

Based on the contact mechanism, we hypothesized—mostly as control variables—that exercise frequency and duration of sports participation would improve the social relations in sports. Exercise frequency seemed to matter for social relations, but less so for duration. We further interpreted the effects of school, leisure, and social media relations in light of the five social mechanisms and (although a bit exploratively) assumed that all non-sports participation should matter for social relations in sports, but leisure more so than school, and probably also more than social media. The results did not fully support these hypotheses: social media seems to be the most influential as compared to leisure and school. Because strong social relations in sports are more demanding than weak social relations, our last hypothesis stated that non-sports relations are more consequential for strong than weak networks, and this assumption was confirmed.

Our study is among the first to explore how social relations in sports develop, and there are many crucial and interesting questions that need future research. Previous research has shown gender differences when it comes to social networks in general [32] and in sports [66]. A first challenge then is to adopt a gender perspective and go deeper into the question of how social relations develop within the context of sports for boys and girls. A second challenge is to develop a more nuanced network typology. As usual in network studies, we worked with a relatively simple distinction (weak and strong) between social network types in sports. It could be useful to work with more fine-grained typologies when looking at sports relations in light of the differences between gender, and also differences between sports, age, competitive levels, and organizational forms. A further challenge is to understand the social mechanisms operating in sports. These challenges also point towards the usefulness of more qualitative approaches that could dig deeper into the inherent content and meaning of social relations in sports. Future work should also seek to address a more nuanced understanding of nonsporting arenas: schools are more diverse than our data allow for, non-sports leisure activities are diverse, and we have merged them into one overall category. Theoretically, social media is a moving target and could be operationalized in many ways, and an overall question is (still) about the meaning of social media: Does social media simply reflect real-world networks, or do they represent more genuine social forces of their own [32]? We see a set of methodological challenges, and for social network studies in particular, one stands out. Our data did not allow for more than degree as an endogenous variable, yet future studies should provide data (or apply methods) that take better care of the genuine network character of the social relations in sports.

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Article 3

Social status and sport: A study of young Norwegians

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Abstract

In this article, we study social status associated with sport. First, we examine the extent to which sport gives social status to Norwegian youths and athletes, how sport does so compared to other status markers and how sport and other various status markers vary by age, gender and cultural class. Second, we study how sport performances influence social status (popularity and likeability) among athletes. We hypothesise that (i) sport has a high status in general and especially among sport participants, (ii) sport loses attraction by age, but less so among sport participants than the general youth population, (iii) sport gives more status to boys than girls and (iv) sport performances influence athletes' popularity and likability. We use data from the nationally representative Ungdata project of 2015 ($N = 22,856$, response rate 70%) and a study conducted by the authors on young athletes participating in organised sport ($N = 387$, response rate 74%). The results show that sport has a high status, especially among young sporting males. Cultural class seems less important for sport status. For status within the context of sports, the best-performing athletes are the most popular and best liked athletes. The findings are discussed with regard to recruitment, continuation and dropout from sports.

When studying why young people participate in sport, researchers tend to look at their motives (Guedes and Netto, 2013; Moradi et al., 2020; Wold and Kannas, 1993). Youth engage in sport to achieve something – meeting friends, competing, having fun or improving their health – and studies see such motives as the crux of sport participation: motives represent inner forces expressed through sport activities.

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Yet, although individual motives matter, much of what people do they do because of others. For young athletes, sport performance might raise (or lower) their worth in the eyes of significant others, let them feel good (or bad) about themselves and their activity and experience a sense of belonging to (or exclusion from) a social group (Frank, 2020; Honneth, 1995; Mead, 1934; Ridgeway, 2019). Youth care about their social standing, they are motivated by status concerns and research shows that peers play important roles in such processes (Adler and Adler, 1998; Frank, 2020; Ridgeway, 2019; Scholte and Van Aken, 2020). Hence, to fully understand youths' participation in sport, it is timely and useful to examine the importance of sport as a way to gain social status.

To investigate the nature and effect of social status in sport, we seek to answer three questions for two samples of young Norwegians: one nationally representative sample and the other consisting of young athletes. First, we question the extent to which sport gives social status to Norwegian youths and athletes. We also compare social status associated with sport to other social status markers prevalent among youths. Second, sport is a status marker embedded in power hierarchies and influenced by social characteristics as age, gender and socioeconomic status, so we consider how these characteristics matter for the social status associated with sport. Third, we investigate how important sport performance is to athletes' social status (popularity and likeability).

Most previous studies on social status and sport have been carried out in the USA and with small to moderate-sized samples (see, for example Chase and Dummer, 1992; Chase and Machida, 2011; Thirer and Wright, 1985). Our study is original in terms of geographical context (Europe and Norway), including different sports and school systems. Moreover, the study includes both a large representative sample, allowing for empirical generalisations, and a smaller sample, making it possible to focus on how sport specifically provides status among athletes. Finally, we include and compare a selection of potential status factors–sport, school, look, trust, alcohol, drugs, fashion, social media and politics – and examine the role of social background in social status processes. In addition to filling gaps in the literature, a better understanding of how sport is valued and gives status in peer communities could provide knowledge on young people's attachments to and participation in sport, including recruitment, dropout, inclusion and exclusion.

To answer our three questions, we first present theories, review previous research both on social status in general and in sport and formulate hypotheses. Next, we present the context for the study along with methods and data. Based on the results, we describe the importance of the various status measures among Norwegian youths and young athletes and how the status associated with sport varies between social groups. Then, we look at how popular and likeable athletes are judged by their co-athletes based on sport performance. We wind up the article with a discussion of how insights on social status in sport might help to facilitate and support the administration of youth sport, with respect to recruitment, dropout and inclusion/exclusion.

Theories and previous research

What is social status, and how does it work?

In her seminal work on status, Ridgeway (2019) makes one observation – status is everywhere! – and raises one question: Why does status matter? In this study, we follow up on

Ridgeway's queries and assume that status is to be found (almost) everywhere in youth sport and aim to clarify how status matters to youth sport.

The crux of the status phenomenon is that actors look to peers for social recognition, and when they are recognised for something they *do* (being trustworthy, emphatic, skilled) or something they *are* (good looking, tall, Dutch) by others, they feel valued and worthy. Recognition then is at the core of status processes where 'Defined simply, status is a comparative social ranking of people, groups, or objects in terms of the social esteem, honour, and respect accorded to then' (Ridgeway, 2019: 1). Although a definition is useful, the issues that really matters for Ridgeway (2019: 1) are why status develops, how it works and how it is significant for our lives.

For a study of youth sport, we find that what makes status develop, work and significant is that status captures at least four aspects central to young people's social lives in sport (Frank, 2020; Honneth, 1995; Renger and Simon, 2011; Ridgeway, 2019). First, status – as recognition from a group of others – gives direction and intensity to *individual experiences* of what is valuable: I am a skilled player, my teammates are grateful for my contributions to our team's success, I feel recognised and sports are fun. Second, because status involves comparing and ranking actors into hierarchies according to what a group consider valuable, status also has repercussions for power and *structures* within peer groups. Social status provides power and social order. Third, social status could be important for *social cohesion*. When most know and many accept their social position in a group, status could contribute to coherence, agreement and low levels of (open) conflict (Halevy et al., 2011). Fourth, status could help adjust and align expectations and thereby ease coordination and social interactions (Goffman, 1959; Tavory and Fine, 2020).

In sum, status *could* matter – positively or negatively – for individual experiences, social structures, cohesion and social interaction in sport. A focus on these aspects of social status is useful for understanding what goes on in sport, how sport is significant, and we will return to these individual and structural factors in the final discussion of the study.

The status of sport in society and among athletes

Our first question concerns the overall status of sport among young people. Several factors point towards sport providing high social status in Norway and similar welfare states.

First, organised sport is an important social arena in the lives of many Norwegian youths. Almost all young Norwegians spend time, for longer or shorter periods, participating in organised sport (Bakken, 2019; Breivik and Hellevik, 2013; Seippel, 2015). This indicates that sport matters and somehow also involves a certain level of status. Second, studies on parents' involvement in sport have shown that they also consider sport an important social arena (Strandbu et al., 2019). Third, it is commonly agreed in the general population that sport has important social functions and is useful for socialisation and integration (Seippel, 2019). Fourth, sport's status is also echoed in the substantial public expenditure on sport and the centrality of sport in national policies (Kulturdepartementet, 2012). Finally, previous research also supports the assumption

that sport leads to high social status among young people (Chase and Dummer, 1992; Chase and Machida, 2011; Coleman, 1961; Green et al., 2015; Jackson, 2006; Seippel, 2006; Shakib et al., 2011).

While many people have positive views about sport, there are also good reasons to be sceptical of sport: doping, cheating, injuries, violence, corruption, hooliganism, fanaticism, nationalism, eating disorders, male chauvinism, narrow-mindedness, smugness, commercialisation and too much (or too little) emphasis on elite sport at the expense of grassroots sport (Bale, 2010; Hughson, 2009; Lasch, 2010; Morgan, 2010; Petroczi, 2009; Pielke, 2016). Some also claim that organised sport is too strictly organised to be attractive to young people (Witt and Dangi, 2018). Yet, despite these negatives and potential status downsides, we hypothesise that, overall, sport has a high status among young Norwegians (H_{Sport1}). Furthermore, we assume that this is even more true for those active in organised sport (H_{sport2}).

Sport and other sources of social status

To interpret the salience of various status markers, we consider three societal trends and their effects on what is considered worthwhile by young Norwegians: (i) post-materialism emphasising values, such as quality of life, self-expression and trustworthiness (Henn et al., 2021; Inglehart, 1977, 1990); (ii) a tendency for young people to be serious and competitive, to do more schoolwork and to be less involved in deviant activities (Aarø et al., 2016; Eriksen, 2020; Raitasalo et al., 2020; Sandberg and Skjælaaen, 2018; Scheffels et al., 2020) and (iii) an increased focus on bodily qualities, health, appearance, fashion and good looks, and for many this plays into their social media lives (i.e. to get virtual likes) (Coffey, 2021, 2022; Walseth and Tidslevold, 2020).

From a general perspective, we assume that these trends in general would support the status of sport. Sport could enhance quality of life (although it could also be seen as trivial or negative), it could be part of a serious and competitive lifestyle (yet it could also be seen as taking focus away from what really matters) and it could be seen as helpful for body and appearance (even though too much of it could have negative impacts).

Sport status and social background

A crucial question is how status associated with sport is impacted by social background factors, such as age and gender, as well as how sport operates as a form of cultural capital and relates to cultural class. It is obviously differences in status of sport, for age (Shakib et al., 2011), gender (Slater and Tiggemann, 2010) and cultural class (Mutz and Müller, 2021).

Regarding age, high dropout rates (Enoksen, 2011; Strandbu et al., 2020) indicate that sport loses attraction by age (H_{age1}). The age in our athlete sample is higher than in the population sample, so this sample is likely representative of those who continue with sport despite aging, and thus age probably carries less meaning in this group (H_{age2}).

Sport has 'always' been gendered, and previous research shows that boys are inclined to rate sport as more important for social status than girls (Chase and Dummer, 1992; Holland and Andre, 1994; Shakib et al., 2011) and that girls and boys tend to value

the social relations in sport differently (Boutilier et al., 1983; Dalen and Seippel, 2019; Giordano, 2003; Soares et al., 2013). So, even though participation rates are (especially for physical activity outside organised club sport) more equal than ever, we assume that taking part in organised sport still gives more status to boys than girls (H_{gender}).

Studies have shown a class pattern where sport participation is highest among high socioeconomic status groups (Andersen and Bakken, 2018). Higher participation rates likely reflect higher status in high socioeconomic circles, but several studies have found that the meaning of various sports varies across classes (Bourdieu, 1978), complicating this picture. Accordingly, we hypothesise that the impact of cultural class on the status associated with sport is, if anything positive, but probably rather marginal (H_{culcap}).

Sport status among athletes: social background and performance

We conduct the same analyses for the athlete sample as for the population sample, and we have stated assumptions regarding both samples in the previous section. However, because athletes are all involved in and concerned with sport, just asking for the status of sport likely misses information about what contributes to the real status structures coming from experiences of sport among athletes.

To grasp how sport factually impacts status and social structures among athletes, we asked each person in our athlete sample to rank the other persons in their groups according to three dimensions: level of sport performance, popularity and likeability. Although popularity and likeability are not identical to status, they both address a similar question of reciprocal recognition: how people value others and how these valuations reflect hierarchical structures within each group. Popularity is considered a dimension of social impact related to power, prestige or visibility, whereas likeability indicates acceptance and social preference (Cillessen et al., 2011). The focus of these analyses is to see how social status structures, such as popularity and likeability, depend on athletic abilities. The straightforward hypothesis is that, for athletes, high performers are more popular and better liked, although we assume that this effect is strongest for popularity, which is less personal ($H_{\text{performance}}$).

Data and methods

We used data from two sources: (1) the nationally representative Ungdata[1] project and (2) a study conducted by the authors on young athletes participating in organised sport.

Ungdata is a cross-sectional survey of adolescents in Norway and covers participation in sport and other leisure activities, relations to parents and friends, school, health and risk-taking behaviour. In 2015, 22,856 students enrolled in schools in Oslo answered the survey as an electronic questionnaire during a school class administered by the teacher. The final response rate was 70% (Bakken and Andersen, 2015).

To study more in detail how sport impacts social status in a setting where all are concerned with sport:that is, among athletes, we conducted a survey on a sample of 387 athletes from 30 grassroots youth sport teams. Recruiting respondents required cooperation with team coaches, so we adopted a snowball sampling technique that began with the authors' networks. We used a stratified sampling technique to ensure that the sample

had diverse characteristics in terms of sport, gender, age and geography. Coaches were first contacted by phone or email, informed about the aim of the project, and asked whether their teams wanted to participate in the project. Interested coaches were given more detailed descriptions of the research project, which they then presented to their athletes. Next, the coaches returned a list of athletes who wanted to participate. The coaches were instructed to emphasise to their athletes that participation was voluntary.

Data collection took place after training sessions or at social gatherings, and the participants answered the survey on an electronic tablet. Those absent at the scheduled time of data collection received the survey by email the next day, followed by a remainder if the survey was not completed within one week. We registered respondents as missing if they had not completed the survey after three reminders. Participants could decline to participate or discontinue filling out the survey at any time.

From an initial sample of 510 athletes who consented to participate in the study, a total of 387 athletes (56% boys and 46% girls) from 30 sport teams completed the survey (response rate 74%). The average age of the respondents was 17.11 years (SD = 1.52). At the team level, the final sample consisted of 8 ski teams, 11 football teams and 11 handball teams from 8 out of 18 Norwegian counties. The response rate ranged between 37% and 100%, with an average team size of 12.90 (min. 6, max. 20, SD = 3.40). For gender composition, 11 teams were boys only, 11 were girls only and there were 8 mixed-gender ski teams. All ethical aspects of the study were approved by the Norwegian Centre for Research Data (NSD).

Measures

To measure *status* in the general youth population, the Ungdata survey asks, 'Do the following things affect your social status within your group of friends?' The response categories include 'Being good at school', 'Being good at sport', 'Being good-looking', 'Being trustworthy', 'Having lots of 'likes' on social media', 'Wearing fashionable clothes', 'Being interested in politics', 'Getting drunk', and 'Smoking cannabis'. To measure status among athletes, we modified the question to fit the sport context: 'Do the following things affect your social status within your sport team?' We used identical response categories. Respondents in both Ungdata and our study answered the questions using a Likert scale ranging from 1 ('Increases social status a lot') to 5 ('Reduces social status a lot').

Cultural class was measured with the question 'Approximately how many books do you have in your home? (1 meter of a bookshelf equals approximately 50 books)'. The number of books in a household operationalises Bourdieu's (1979) notion of objectified cultural capital of symbolic wealth, and it is a well-tested measure of socioeconomic status (see for example Hoffmann et al., 2019; Hoffmann et al., 2018; Sieben and Lechner, 2019). Responses ranged from 0 (no books) to 5 (more than 1000 books).

In the athlete sample, we used peer nominations to measure popularity, likability and sport performance. Status is assigned and not chosen (Ridgeway, 2019), so team members' evaluations of co-athletes' status are more relevant than the athletes' self-perception of these measures. Each athlete first selected one person in their team as the most popular/likeable/highest performer in sport and then answered a similar question regarding the second-most, third-most and fourth-most likeable, popular and best-

performing athletes in the group ('Who do you think is the most popular person on your team?', 'Who do you think is most liked on your team?' and 'Who do you think is the best athlete on your team?'). In sum, the participants could choose up to four co-athletes on all three questions. We counted nominations for each person on each question, weighed them according to whether they were nominated most, second, third or fourth most popular (1, 0.5, 0.33, 0.25), summed the nominations and divided by the size of the group to get a relative ranking of nominations (avoiding the effect of receiving many nominations simply because one is part of a large group) (Table 1).

Analyses

In terms of social status levels, for both samples, we compared the mean values of the surveyed status markers, with a special focus on sport. We ran a total of nine ordinary least squares (OLS) regression models with each of our two data sets to determine the impact of social background on status, one for each of the status markers. In the case of the athlete sample, we ran multilevel OLS regressions to account for the dependencies

Table 1. Independent variables and performance, popularity and likeability. Percentages and *N*.

	National sample	Athlete sample
Gender		
Male	51.6	43.2
Female	48.4	56.8
N	22,190	384
Cultural capital (no. books in household)		
None	1.7	2.3
<20	11.1	7.3
20–100	27.3	23.8
100–500	31.6	34.5
500–1000	18.3	23.0
>1000	9.9	9.1
N	22,736	383
School class (≈age)		*Age*
Eighth class middle school (≈14 years)	18.3	–
Ninth class middle school (≈15 years)	18.8	
Tenth class middle school (≈16 years)	16.9	16 years: 32.3
First class in upper secondary school (≈17 years)	18.9	17 years: 41.4
Second class in upper secondary school (≈18 years)	14.3	18 years: 18.0
Third class in upper secondary school (≈19 years)	12.7	19+ years: 8.3
N	22,856	384
Performance		Mean: 0.19
		SD: 0.25
Popularity		Mean: 0.18
		SD: 0.20
Likability		Mean: 0.18
		SD: 0.18

of the samples (groups) and to include gender as a variable on the group level. To analyse the influence of popularity and likeability on sport performance among athletes, we ran simple OLS regressions. We included social background variables in these analyses, but they added little insight and are not included in the reported results. The data analyses were conducted using R 4.1.3 (R Core Team, 2022) and RStudio 1.2.5001.

Results

Social status: sport and other issues

Table 2 shows the ranks, means and standard deviations for a set of nine status markers in the general youth population and among young athletes.

In the general youth population, *trustworthiness* is by far the most important status marker, with a considerable step down to *look*, *sport*, *school*, *fashion* and *likes*. *politics*, *alcohol* and *cannabis* give the least status.

Three societal trends are useful for interpreting these findings: (i) post-material values emphasising values related to the quality of life (normative and expressive factors) (Henn et al., 2021; Inglehart, 1977, 1990); (ii) a serious and competitive youth generation more devoted to schoolwork, competing harder for accessing schools and universities, and being less involved in deviant behaviour and (iii) a trend towards an increased focus

Table 2. For general youth population: what is important to get status? For young athletes: what is important to get status in your team? Mean and standard deviation (scale 1:5).

	Rank	Mean	St. dev.
General youth population			
Trustworthy	1	4.42	0.76
Look	2	3.83	0.88
Sport	3	3.76	0.84
School	4	3.71	0.83
Fashion	5	3.52	0.90
Likes	6	3.40	0.90
Politics	7	2.99	0.86
Drunk	8	2.45	1.17
Cannabis	9	2.05	1.11
Young athletes			
Sport	1	4.14	0.77
Trustworthy	2	4.13	0.78
Look	3	3.40	0.75
Likes	4	3.25	0.66
School	5	3.23	0.61
Fashion	6	3.19	0.63
Politics	7	2.98	0.57
Drunk	8	2.49	0.90
Cannabis	9	1.69	0.92

on bodily qualities and appearances (Coffey, 2021, 2022). We find traces of all these trends in our results. *Trustworthiness* is on top of the status list for the general population, representing an expression of post-material values. This is followed by a cluster of issues reflecting appearance and seriousness: *sport, looks, school, fashion* and *likes*. Status through *politics* is ranked lower than might be assumed in a serious and post-material world, but more deviant behaviours, including *alcohol* and *cannabis*, are low in status, as would be expected. Compared to the other status variables, sport is unique in that it could reflect several of these trends – non-material qualities of life, serious and body oriented – and, combined with the high sport participation rates, it is apparent that sport is associated with high status.

Unsurprisingly, for athletes, sport leads clearly, with the highest mean values and lowest variation. Except for sport having a higher status position than *trustworthiness*, the pattern is very much the same as in the population. Athletes are like the general population in having a second cluster of status markers related to appearance and seriousness, and despite some shuffling around of the items, the main pattern is the same. Furthermore, *politics*, *alcohol* and *cannabis* are also at the bottom of the status hierarchy among athletes.

Overall, and in support of our expectation (H_{sport}), we find that sport is high on the status agenda, probably due to its catch-all-features with respect to the general post-material, serious and body-focused value trends. A second finding is that, apart from sport, young athletes are not special and are mostly like the general youth population when it comes to what conveys status.

Social status by age, gender and cultural class

The high status associated with sport is noteworthy, yet a timely question is how social status depends on social background, including age, gender and cultural class. To examine this, we ran nine OLS regression models for each status marker (Table 3).

The status of sport is higher among boys than girls, and it is striking that sport seems to be the most gendered (based on the size of the regression coefficients) of the status markers. The second- and third-most gendered factors associated with status are trustworthiness (female status) and cannabis (male status). Regarding age, there is a significant negative correlation: The older the individual, the lower the status of sport, which support our hypothesis that sport loses attractiveness with age (H_{age1}). Apart from the deviance statuses (alcohol and cannabis), sport is also the most clearly age-related status. In terms of cultural class, sport stands out as the only status type without a significant class effect.

Compared to the other status items, the full social profile of sport is unique in its constellation of significant variables: young males without specific class characteristics. Nearest in social profile is *school*, which is also most significant for young males (with much smaller correlations), but school-status also has a clear and consequential class profile and a low model fit. *Looks*, *fashion* and *likes* all have similar social profiles: young females with a high cultural class background. The deviance statuses – alcohol and cannabis – are gendered (male), associated with age (older), and tend towards high cultural capital. *Trustworthiness*, the most salient status, has a unique social profile: no age

Table 3. Multiple OLS regression: social status markers by social background in the general youth population (Ungdata). Regression coefficient with standard errors in parentheses.

	School	Sport	Looks	Trust	Drunk	Cannabis	Fashion	Likes	Politics
Gender (male = 1, female = 2)	-0.03***	-0.36***	0.01	0.19***	-0.09***	-0.17***	0.03**	0.07***	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Class (school)	-0.01*	-0.07***	-0.03***	0.003	0.24***	0.16***	-0.02***	-0.01***	0.09***
	(0.003)	(0.003)	(0.004)	(0.003)	(0.005)	(0.004)	(0.004)	(0.003)	(0.003)
Cultural capital	-0.02***	0.003	0.03***	-0.02***	0.10***	0.02***	0.05***	0.06***	0.07***
	(0.005)	(0.005)	(0.01)	(0.004)	(0.01)	(0.01)	(0.01)	(0.005)	(0.005)
Constant	3.84***	4.15***	3.80***	4.38***	1.33***	1.51***	3.39***	3.19***	2.42***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)
Model statistics									
Log likelihood	12.53	487.9	28.81	117.5	1031.0	504.3	47.29	55.16	289.0
R^2	0.00	0.07	0.00	0.02	0.13	0.07	0.01	0.01	0.04
N	21,137	21,074	21,026	21,040	20,998	20,963	21,008	20,937	21,067

Note: $*p < .1$; $**p < .05$; $***p < .01$.

effect, female and a negative class effect. *Politics* convey status for older girls with a high cultural class background.

Our general population sample is large with a low threshold for statistically significant effects. Looking at the fit of the models (R^2 and F-tests), we see that only a few models (sport, alcohol, cannabis and politics) have a good fit, indicating that social background makes a difference. Furthermore, we see that sport status is the status that is most dependent on social background among the activities associated with a generally high status (Table 3).

While the general youth sample is (close to) random and allows for empirical generalisations, the athlete sample is stratified by clubs and chosen to ensure variation (sport and gender). To compensate for this lack of independence in sampling, we performed multilevel analyses (Snijders and Bosker, 2011) (Table 4)

The first finding from the athlete models is that social background has less impact on status for athletes than for the general population (there are fewer significant regression coefficients and poorer model fits) (Table 4). There are two likely reasons for these results. First, there could be less variation among athletes because those 'selected' into 'continued' sport represent a more socially homogeneous group than the general population and thus 'agree' more on what conveys status. Second, the sample is much smaller, so the threshold for statistical significance is higher.

In terms of the status of sport among athletes, the pattern is, compared to the general youth population, both similar and different. The age in the athlete sample is higher than in the population sample, so we expected athletes in this sample to hold on to sport despite aging (H_{age2}). However, the results show that as for the larger sample, sport is important for the younger athletes. For gender, however, the pattern is different, and status seems to be higher (though not significant) for female than for male athletes. This is probably due to a selection effect reflecting the gendered status hierarchy in the general population: When girls continue with sport despite the lower general status given for girls and thereby the higher threshold for participating, they have to be more devoted to sport – that is, the girls going on with sport are (a bit) special. Hence, our expectation that sport conveys more status to boys than girls (G_{ender}) is only partially supported and only regarding the general youth population. High cultural capital also seems to increase the status of sport among athletes, whereas this effect was positive though not statistically significant in the general population.

Gender matters significantly for the status of school, whereas age matters for cannabis and politics (as in the larger sample). Besides sport, cultural capital is positively correlated with the status associated with school, trust, fashion, likes and politics.

Social structures and performance

Are the best-performing athletes also the most popular and best liked athletes? Table 5 shows that athletes' popularity and likeability are indeed related to their performance, and the performance seems to matter more for popularity than for likeability.

We see that good sport performances increase athletes' popularity and likeability. Thus, even though athletes report that sport in general brings status, a specific factor that makes a difference in terms of concrete social relations in the athlete group – how athletes appear to one another – is how well they are seen to perform in sport.

Table 4. Multilevel OLS regression: social status markers by social background among young athletes grouped at the team level. Fixed regression coefficient with standard errors in parentheses.

	School	Sport	Looks	Trust	Drunk	Cannabis	Fashion	Likes	Politics
Fixed effects									
Gender (male = 1, female = 2)	-0.121*	0.067	0.101	0.078	0.019	-0.090	-0.058	0.035	-0.069
	(0.063)	(0.086)	(0.091)	(0.089)	(0.122)	(0.127)	(0.065)	(0.078)	(0.058)
Age	-0.014	-0.052**	0.018	0.029	0.052	0.058*	0.021	0.032	0.038**
	(0.020)	(0.026)	(0.026)	(0.027)	(0.032)	(0.032)	(0.021)	(0.023)	(0.019)
Cultural capital	0.075***	0.062*	0.050	0.112***	0.015	-0.040	0.048*	0.075**	0.052**
	(0.027)	(0.034)	(0.034)	(0.035)	(0.040)	(0.040)	(0.028)	(0.030)	(0.025)
Constant	3.352***	4.684***	2.730***	3.074***	1.549***	1.016*	2.726***	2.338***	2.207***
	(0.365)	(0.476)	(0.476)	(0.483)	(0.584)	(0.589)	(0.378)	(0.417)	(0.336)
Random effects (variance components)									
Constant: ind. level $\sigma2$	0.36	0.57	0.53	0.57	0.71	0.70	0.39	0.41	0.31
Constant: group level $\tau00$	0.00	0.01	0.03	0.02	0.11	0.14	0.00	0.02	0.00
Intraclass correlation coefficient (ICC)	0.00	0.02	0.05	0.03	0.14	0.17	0.00	0.05	0.000
Model statistics									
Log likelihood	-357.64	-446.90	-436.57	-448.08	-499.64	-499.83	-371.22	-388.15	-326.327
Marginal R^2/conditional R^2	0.03/0.00	0.02/0.04	0.01/0.07	0.04/0.07	0.01/0.14	0.01/0.18	0.01/0.00	0.03/0.07	0.03/0.00
N ind. level/N group level	383/30	383/30	383/30	383/30	383/30	383/30	383/30	383/30	383/30

Note: *$p < .1$; **$p < .05$; ***$p < .01$.

Table 5. OLS regression: 'popularity' and 'likeability' by 'performance' among young athletes. Regression coefficient with standard errors in parentheses.

	Popular	Liked
Performance	0.557*** (0.029)	0.507*** (0.024)
Constant	0.068*** (0.009)	0.080*** (0.008)
Model statistics		
Log likelihood	380.1	455.1
R^2	0.50	0.54
N	387	387

Note: *p < .1; **p < .05; ***p < .01.

Sport performances, popularity and likability, are standardised on a 0–1 scale. A one-unit shift upwards in sport performance increases the mean of athletes' popularity (0.557) and likability (0.507) substantially. Therefore, sport performance is consequential and spills over into what may appear to be non-sporting social relations.

We included social background variables in these analyses, but they added little insight. Rather, comparing the popularity and likeability of various athletes based on their performance level is what makes a difference.

Summary and discussion

Our results show that sport has high status among young Norwegians, more so for males than for females. The status associated with sport wanes with age, whereas cultural capital is less consequential. Thus, while sport, in general, gives high social status, the level of status of sport also depends on social and individual characteristics. The high status associated with sport is reflected in high participation rates and the high evaluations of the social benefits of sport in the population, and it also seems reasonable to conclude that sport resonates with current cultural trends: post-materialism, competition/seriousness and body/appearance.

Sport has less status than trustworthiness (post-material values), more than deviant behaviours (alcohol and cannabis) and more than socially responsible action (politics). Sport conveys status in ways similar to school, likes, looks and fashion, representing competition and seriousness (school) and body and appearance. To better understand how sport affects status individual experiences and social structures among athletes, we examined how athletes' evaluations of teammates' popularity or likeability is impacted by their sport performance. For both popularity and likeability of athletes, individuals' perceived sport performance seems to imply that social structures and status hierarchies within sport certainly reflect sport performances.

Taken together, sport has a high status among young Norwegians, and this status is affected by social status mechanisms both outside (age and gender identities) and inside sport (performance). The status associated with sport could impact individual experiences of sport activities and the social relations between athletes (structure, belonging and cohesion). Hence, it is reasonable to assume that sport status has a decisive impact on many practical issues related to sport. To conclude the study, we will discuss how our

findings help understand sport participation regarding recruitment, continuation and dropout.

The status associated with sport is consequential because status coming from recognition for doing and/or being something could mediate individual experiences as well as social relations – both being essential motivating factors for sport participation. As such, status is one among several social mechanisms that impacts people's reasons to take part and excel in sport (or not). Even though one tends to assume that sport has intrinsic values (Vallerand and Fortier, 1998), social status in most cases is an essential requirement for positive experiences and social relations in sport. If sport did not convey status, sport would lose much of its appeal, even though more than status is required to enhance participation (e.g. social networks, clubs and facilities). For those not being recognised as athletes, sport will be a less attractive activity: It could come with negative individual experiences and be socially exclusive. Thus, it is relevant to discuss the relevance of our findings for the way in which people behave in relation to sport. We will do this in the context of grassroots sports. Three findings guide our discussion: sport has high status, sport status depends on social background and the sport activity itself (performance) impacts social status structures within sport.

On one level, the high status associated with sport implies that participation is attractive, which helps sport recruitment and continuation while deterring dropout. In addition, sport is positively related to general value trends, which makes it even more suitable as a popular leisure activity. The status of sport also appears to be socially inclusive, as cultural capital does not (relative to other status forms) have much of an impact: Sport is considered worthy in most socio-cultural circles. Combining the low socio-cultural effect on sport status in this study with the large and significant impact of socioeconomic position on sport participation in other studies (Andersen and Bakken, 2018) strengthens a claim of economic costs as a decisive mechanism behind social inequalities in sport, not (more culturally based) status mechanisms.

Although participation in sport and physical activity is becoming less gendered, the status ascribed to sport is, among the status markers included in this study, the most gendered. Consequently, sport provides different experiences and social relations for boys and girls and sport is likely more consequential for boys' sport identities than for girls. Specifically, boys receive more recognition than girls for their sport participation. If (organised) sport conveys less status for girls, this implies that girls' participation in organised sport will either be lower than that of boys or, when it occurs, involve a higher threshold for participation which will require more effort and/or motivation. There is an additional requirement for female sport careers: Girls must be more committed than boys, or they will drop out.

The connection between sport and age is well known and socially significant. It both clarifies the ease with which young people are attracted and recruited to sport and explains why so many later drop out. The status associated with sport implies experiences and social relations and if these wane by age, sport is simply not as attractive to older youths as it is to youngsters.

The weaker status of sport among older youths likely relates to factors outside of sport (Deelen et al., 2018; Persson et al., 2020). In addition to the increased importance of

friendships and partners, school takes up more time, more leisure activities are available and many starts to work (part-time). Consequently, there are more opportunities for social status and tougher competition for sport as a dominant status arena.

Performance is essential in competitive sport, and it also impacts experiences, social relations and status among athletes. Indeed, comparing and evaluating the performance of others is central to how sport is experienced. Initially, sport seems to attract almost all youths, both those who care about performance and enjoy the status it conveys as well as those attracted to friendships but less concerned with sport itself. Over time, however, it seems inevitable that those who succeed in sport will garner higher status, enjoy sport more, develop significant social relations to co-athletes and thus be more committed to sport. Although stakeholders – parents or officials – can intervene and offer guidance regarding the appropriate level of focus on performance and achievement, a self-enforcing interaction of performance and status seem inevitable in sport.

Status has an immediate meaning – ranking people according to specific qualities – at the same time as it also raises more intricate questions relevant for how it matters and what goes on in sport. We think it would be useful for future research to focus on six topics.

First, it would be interesting to study both the relationship between the status of sport and other sources of status and how status processes work differently for specific sports. Second, we have emphasised how status matters for how sports are experienced, how structures are built, and for cohesion and interactions. A more detailed analyses of how sport status matters for such phenomena would be beneficial. Third, we have touched upon three external factors – age, gender and cultural class – that matter both for sport participation and sport status, but a more detailed picture of how these factors matter alone and in interactions could be interesting. Especially, better informed analyses of status and social class could be useful. Fourth, we have shown how sport performances have consequences for status, and a better understanding of how what goes on intrinsically in sport matter for the social qualities of sport could also bring new insights. Fifth, a better understanding of how sport social status also produces negative experiences and social exclusion would be useful in a society where sport's high status is taken more or less as granted.

Finally, status is a complex phenomenon and it is difficult for those involved - e.g. club officials or coaches - to control. Like reputation and trust, status is difficult to construct top–down but easy to tear down. Status is an important factor impacting the attractiveness of sport, but it points to the very complex social forces behind what goes on in sport: how it is experienced, how interactions develop and how social structure takes form. A more detailed understanding of status outcomes is a prerequisite for handling the ever-present question of participation in and drop out from organised sport could give useful insights.

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Note

1.   For more on Ungdata, see www.ungdata.no/english

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Article 4

Bergesen Dalen, H. (under review). Organised Sports and School: Conflicting or Mutually Supportive Arenas? The Significance of Sporting Experiences. *Nordic Journal for Youth Research*.

Organised Sports and School: Conflicting or Mutually Supportive Arenas? The Significance of Sporting Experiences

Organisert idrett og skole: motstridende eller gjensidig støttende arenaer? Betydningen av idrettslige erfaringer

Word count: 49 177

Abstract

Purpose: Youths who participate in organised sports do well in school. A common way of understanding this has been quantitative, where academic performance and interest in school have been compared between sports participants and non-participants. In this article, I adopt a different approach and examine the significance of the quality of the sporting experiences—as enjoyment and performances—for how athletes do at school, while simultaneously controlling for cultural capital, sport participation frequency, and gender.

Methods: I used multilevel regression analysis to examine data from 387 Norwegian high school students who participated in organised sports.

Results: Grades in Norwegian, English, and mathematics were associated with higher cultural capital, while grades in physical education were positively correlated with sports performance levels and sports participation frequency. Time spent on homework was negatively correlated with sports performance levels, while school interest increased with enjoyment but decreased with higher sport performance. No gender differences were identified. The findings are discussed against central explanations in the literature and linked to social inequality processes in the field of education.

Conclusions: Athletes' vary more in terms of school outcomes than that revealed in previous studies and this should be seen in relation to enjoyment and performance levels.

Keywords: Youth sport, enjoyment, performance, academic achievement, school interest.

Sammendrag

Formål: Ungdom som driver med idrett presterer bra på skolen. Den vanlige måten å forstå dette på har vært kvantitativ, hvor skoleresultater- og interesse har blitt sammenlignet mellom idrettsdeltakere og ikke-deltakere. I denne artikkelen tar jeg en annen tilnærming og undersøker hvordan erfaringer fra idretten – som idrettsglede og prestasjoner – henger sammen med hvordan idrettsaktiv ungdom gjør det på skolen, samtidig som jeg kontrollerer for kulturell kapital, deltakelsesfrekvens og kjønn.

Metode: Jeg brukte flernivå-regresjonsanalyse for å undersøke data fra en kohort på 387 norske videregående elever (16-19 år) som deltok i organisert idrett på fritiden. Resultater: Karakterer i norsk, engelsk og matematikk hang sammen med høyere kulturell kapital, mens karakterer i PE var høyere blant utøverne som presterte best og brukte mest tid på idrett. Tid

brukt på lekser korrelerte negativt med bedre idrettsprestasjoner. Skoleinteressen økte med høyere idrettsglede, men hang negativt sammen med bedre idrettsprestasjoner. Ingen markante kjønnsforskjeller ble identifisert. Funnene er diskutert opp mot sentrale forklaringer i litteraturen og mot sosiale ulikhetsprosesser i skolesystemet.

Konklusjon: Idrettsungdoms karakterer og skoleengasjement varierer med idrettsglede og prestasjonsnivå. Dette tyder på at forholdet mellom idrettsdeltakelse og skoleresultater er mer komplekst enn tidligere antatt og henger sammen med hvordan utøvere erfarer sin idrettsdeltakelse.

Stikkord: Ungdomsidrett, idrettsglede, prestasjon, karakterer, skoleinteresse.

Introduction

Participation in organised youth sports is associated with high academic achievements (Mehus, 2016; Skauge and Hjelseth, 2021; Sletten et al., 2015; Stea and Torstveit, 2014). This association has commonly been understood from a quantitative perspective, where youths' school results have been compared according to a dichotomous distinction between sports participants and non-participants, occasionally in combination with participation levels (typically measured as weekly attendance in training sessions). However, it stands to reason that it is not merely the participation or participation frequency that is important but also the quality of the sporting experiences: Having fun (or not) and performing well (or not) is probably decisive for whether sports is rewarding and carry meaning in other areas of life, including school (Bentzen et al., 2021). As Breivik (2022) notes, '…sports may have meaning in itself but may increase its meaningfulness by being integrated into the broader life context' (20). Furthermore, it is argued that sports can reduce social inequalities in school through various physical, social, and cognitive tasks (Putnam, 2016). The question I answer in this paper is how the quality of the sports experience— not only whether one participate (the quantity)—is of significance for how young athletes perform at school and show interest in education.

Most Norwegian youth are first introduced to organised sports when they are 5-7 years old. At this point, competitions are toned down to protect children from what is seen as damaging aspects of adult sports, such as pressure to perform and win, and comparisons and rankings of performance and skill levels (Støckel et al., 2010). Gradually, sports become more time-consuming and oriented towards competition, and although those enjoying and performing well in sports at this point may benefit from their participation in sports at school (and vice versa), it may also be that sports compete with academics for young people's time and attention, thereby representing an orientation away from school and education (Coleman, 1961).

This article focuses on how athletes qualitatively experience their sports participation: whether it is enjoyable and how well they perform. However, to really see how the quality of sports participation relates to school outcomes and to improve the reliability of the analysis, it is necessary to include a set of control variables. First, the traditional means of studying the relationship between sports and school—whether one participates or not—must be controlled for. In this article, this is measured as athletes' weekly attendance at training sessions in their

respective sports teams. Second, it is necessary to control for social class, as class position impact youths' everyday practices, including sports participation, homework, academic achievements, and their educational trajectories (White, 1982; Andersen and Bakken, 2019; Clarke, 2022). In particular, cultural capital, i.e. resources of knowledge which in this article is measured as the number of books at home, has proven important for school success (Davies and Rizk, 2018).

Finally, gender must be controlled for. Boys have historically been overrepresented and had a higher engagement in sports in Norway. Girls have better academic achievements (Statistics Norway, 2022a; Statistics Norway, 2022b; Eriksen, 2021; Borgonovi et al., 2018), but experience more school-related stress than boys, who display a more carefree attitude towards school and homework (Bakken et al., 2018; Moberg and Vogt, 2022).

In addition to including new variables that measure how athletes qualitatively experience their sports participation, I also utilise a wider spectrum of measures of school outcomes than that employed in earlier studies, as the relevance of sports enjoyment and sports performance levels may be better captured by exploring several aspects of athletes' schooling. I first examine the most widely used measure in the literature: grades. Grades in Norwegian, English, and mathematics are presented as a single measure, while those in physical education (PE) are measured separately. This is done for the following three reasons: i) There are different patterns that affect grades in PE as compared to those in theoretical subjects; thus, combining them into one measure can lead to overlooking of key connections (Mehus, 2016); ii) PE and organized sports are structurally alike—facilitating physical activity usually under instruction of an adult figure (i.e. teachers and coaches); (iii) there are ideologically driven tensions regarding the nature of sports and physical activity between the traditionally health-oriented PE and voluntary competitive sport (Skirstad et al., 2012). The national curriculum in Norway states that PE should contribute to students developing competence in exercise, lifestyle, and health (Utdanningsdirektoratet [The Norwegian Directorate for Education and Training], 2020). Lately, national sports organizations has had an increased influence on school sports in Norway and its neighbouring countries (Ferry et al., 2013; Kristiansen and Houlihan, 2017). Asking athletes currently active in organized sports about their qualitative sporting experiences can illuminate whether the close ties between organized sports and schools contribute to reproduce social inequalities in PE—for example, by favouring successful athletes who deliver the best sports performances. Next, I also examine time spent on homework to grasp workload. Thereafter, I examine school interest, which is a combined

measure of homework engagement, learning enjoyment, and academic ambitions (see the method section for a detailed description of included variables).

This study contributes to the extant literature in three ways. First, I use more nuanced measures of sports participation. The dominant method is to measure participation in organised sports as an "all-or-nothing" dichotomous variable (i.e. sport participants vs. non-participants/former participants). A limitation of this approach is that it assumes that the respondents in the "participant" group are identical in terms of their involvement. Second, it is well-documented that the school system reproduces social inequalities in academic outcomes (Bakken and Elstad, 2012) and organised sport is assumed to reduce such inequalities (Putnam, 2016). Using qualitative measures of athletes' sports participation can illuminate how sports operate in relation to social inequality processes in the school context. Third, most research originates from the US and focuses on school sports (see, for example Bang et al., 2020; Wretman, 2017). Given the differences in educational systems and sport structures across cultures, it is desirable to focus on the Scandinavian context (as Norway) as well.

In the following section, I describe the context of the study and review previous research and relevant theory. Thereafter, I present the data and methods. Further, I present a two-part multilevel regression analysis in the results section. In the first part, I examine how athletes' enjoyment and performance in sports is correlated with grades, while simultaneously controlling for frequency of sports participation, cultural capital, and gender. In the second part, I examine how athletes' enjoyment and sport performance levels relate to time spent on homework and interest in school. The control variables are the same as those used in the first part. I wind up the article with a discussion that explains the relationship between sports and school in light of how athletes qualitatively experience their sport participation: whether it is enjoyable and how well they perform. In extension, I discuss the role of organized sports for social inequalities in academic performance, time spent on homework and school interest.

Contextual background: Organised sport and school in Norway

While youth sports to a large extent take place at school in most Anglo-Saxon nations, participation in organised sports in leisure time is more common in Norway and the rest of Scandinavia. Over nine out of ten Norwegian youths (aged 13–18 years) have been members of a sports club at some point (Bakken, 2021). The Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF) is the umbrella organization that organises 55 national sports federations, 11 regional sports federations, and approximately 12,000 local

sport clubs. Clubs are usually located in geographical proximity to local schools; thus, young people often participate in these clubs with their peers from school (Strandbu et al., 2019).

The regulation of activities in voluntary sports organizations is more rigorous in Norway than its neighbouring Scandinavian countries (Støckel et al., 2010; Green et al., 2019; Green et al., 2015). Since 1987, Norwegian youth sports have followed the doctrine of "Children's rights in sports", which is a set of rules that regulate competitions offered to children (NIF, 2019). The regulations stress the importance of providing an educational introduction to sports that supports young people's physical, psychological, and social development (NIF, 2019). The stronger regulations should be seen in relation to the Norwegian sports model being more centralized, under stronger public influence, and receiving more public funds than its Scandinavian neighbours (Støckel et al., 2010; Bergsgard and Norberg, 2010).

In contrast, the role of sports in the educational systems is similar across Scandinavia. Historically, all three countries have sought to regulate school sports (Seippel et al., 2010). However, there is a trend of more schools offering sports-specific practice, often aided by sports organizations (Kårhus, 2016; Kårhus, 2019; Ferry et al., 2013). This does not appear to be limited to elite sports schools or sports-specific programmes. Ordinary PE is strongly associated with sports among youths (Casey and Quennerstedt, 2015), where sporting abilities is a central grading criteria (Redelius and Hay, 2012; Svennberg, 2017) and PE teachers have problems connecting with students not involved in organised sports (Säfvenbom et al., 2015). This indicates a performance-based cultural overlap in which school practices appear to adhere to the ideological premises of sports organisations.

Previous research, theoretical framework, and expectations

In this chapter, I present findings from previous research on the relationship between sports and school and my theoretical framework, from which hypotheses are developed.

Previous research

Studies from outside Scandinavia, particularly from the US, where youth sports are mainly at school, reveal that sports correlates positively with grades and interest in school (Bradley et al., 2013; Burns et al., 2020; Fox et al., 2010; Papasideris et al., 2021; Chen et al., 2021; Marsh and Kleitman, 2003; Marsh, 1993). A meta study reveals that the more time students spend on sports, the better their academic outcomes (Bohnert et al., 2010). Most studies compare sports participants and non-participants and their conclusions tend to reflect this

simple distinction: it is participation in sports and/or the amount of participation that is matters.

In Norway and Scandinavia in general, sports takes place outside of school to a greater extent; however, the findings in Norwegian studies are consistent with studies from outside Scandinavia—participation in organised sports positively correlates with grades and time spent on homework (Sletten et al., 2015; Stea and Torstveit, 2014; Mehus, 2016; Skauge and Hjelseth, 2021). In a recent study published in *Nordic Journal for Youth Research*, Skauge and Hjelseth (2021) examined the relationship between sports and school to explain differences in sports dropout levels between minority (youth with two foreign-born parents) and majority youth. They found that dropping out from sports was correlated with weaker school performances for majority youth and the opposite was true for minority youth. Simultaneously, dropping out was more common among young people who spent a lot of time on homework, but this connection was more prevalent among minority youth. In summary, previous research within and outside Scandinavia reveals that for most youths, participation in sports is positively associated with school.

Different perspectives have been used to explain the positive relationship between sports and school. The first explanation is *selection*, which suggests that youths who are well-adapted in sports are also well-adapted in school because sports and school are structurally alike: sports teams and school classes have approximately the same number of children, with fixed meeting places at fixed times and coaches/teachers overseeing activities that usually involve practice and training to improve skills, which is monitored by measuring and testing the athletes/students (Sletten et al., 2015). Who then, appears to be well-adapted in sports? Sports is more common in the upper classes, a segment in the population that do well in school (Post et al., 2018; Fredricks and Eccles, 2005). This also holds true for young Norwegians (Strandbu et al., 2017; Seippel et al., 2011). Bourdieu's take cultural capital is relevant here. He argues that the impact of cultural capital is greater when tasks are complex/diffuse and talent is assumed to be required to succeed (indicating math and language subjects); this impact is less relevant when goals are easier to measure and grade setting is based more on hard work (which resonates with the descriptions and perceptions of PE) (Bourdieu, 1996).

A second explanation is that sports and school are not only structurally alike but also share *corresponding logics* (Eccles and Barber, 1999; Skauge and Hjelseth, 2021). Both sports and school centre around competition and testing of sporting/academic abilities through

measuring and grading achievements on specified aims and standards (Imsen et al., 2017). This explanation emphasizes that experiences in sports activities can be useful in a school context. It has been argued that participation in sports—when done right—builds character, task persistence, work ethic, as well as teaches the value of teamwork, goal setting, and a sense of mastery (Smith, 2007; Støckel et al., 2010).

Thus, at a general level, the athletes in this study—who are in their mid to late teens, many from higher cultural classes, and have remained in sports during a period of increased focus on sport performance—should have good prerequisites for being engaged and doing well in school. However, Coleman (1961) argues that sports and school *compete for youths' time.* Building on a zero-sum model, the idea is that time spent on sports comes at the expense of time that could be used for homework. This model has been extended to incorporate *engagement*, where an orientation towards sports competes with the school for young people's attention (Marsh, 1992).

These perspectives are not mutually exclusive and they cover a lot of explanatory ground. Yet, they have seldom been empirically tested among sports-active youths and in relation not only to sport participation quantity but also the quality of how athletes experience sports, where—as I will show—enjoyment and sporting performance are important factors.

Enjoyment of sports

Sports, in its ideal form, resembles play: it is spontaneous, voluntary, outside of everyday life, and occurs at specific times in specific arenas (Huizinga, 1949), and enjoyment is an essential element of activities—for example, when celebrating a win—while the absence of such experiences can reduce enjoyment. Such enjoyment can change each day and be difficult to measure. However, enjoyment in sports is also understood as "…a positive affective response to the sports experience that reflects *generalized* feelings such as pleasure, liking, and fun" (Scanlan et al., 1993: 6;emphasis added). This indicates how enjoyment in sports reflects not only satisfaction in the present but also in the past and optimism for the future (McNulty & Fincham, 2012), which is a good starting point for thriving in sports and in school. Enjoyment is also essential for learning (Packer, 2006) and in friendships (Jones, 2001). Previous studies reveal that friendships "flow" between sports and school: Youths participating in sports are more likely to be friends in school and those attending the same school are more likely to be friends in sports (Schaefer et al., 2011; Dalen and Seippel, 2021). Friendships provide companionship, entertainment, and emotional support, which is important to succeed in

school (Witkow and Fuligni, 2010; Wentzel et al., 2018; Ryan and Ladd, 2012), while youths who lack friendships are more at risk of academic problems (Wentzel and Battle, 2002). In sum, enjoyment is an expression of satisfaction and is significant for learning and the development of supportive social relations. Conversely, a lack of enjoyment can signal an unpleasantness or indifference to sports and/or school. How the relation between sport enjoyment looks for the specific school measures is an open question. Hence, I hypothesize, more generally, that enjoyment in sports positively correlates with grades ($H_{Enjoyment\_Grades}$), time spent on homework ($H_{Enjoyment\_Homework}$), and school interest ($H_{Enjoyment\_School\_Interest}$).

Sport performance

When sports becomes more serious and competitive, the corresponding logic shared with school regarding the value of performing well comes to the forefront: it is assumed to influence concentration as well as being 'character-building', teaching the value of working hard (Weiss et al., 2014). Being good at sports also give status, which can contribute to self-esteem and positive attention from fellow students and teachers (Shakib et al., 2011). In terms of age, the respondents in this study are at a point in their sporting careers where there is lower dropout among athletes with good academic achievements (Skauge and Hjelseth, 2021). While this may be mostly about social background, it could also be directly linked to the process of becoming good at sports/school and managing and profiting from the performance focus prevalent in both sports and school. Thus, I hypnotize that good sporting achievements go together with good grades ($H_{Performance\_Grades}$), time spent on homework ($H_{Performance\_Homework}$), and an interest in school ($H_{Performance\_School\_Interest}$).

In sum, I expect that high-quality sporting experiences correlate positively with school. However, as noted, a potentially moderating factor is Coleman's (1961) depiction of sports and school as competing social arenas. From this perspective, quantity is also important too, as devoting too much time to sports could leave less time for school or weaken engagement in educational aspects. Marsh's engagement model (1992) is particularly relevant for understanding the significance of enjoyment and performing well, as putting effort into constructing and nurturing sports identities may distract attention from academic activities (Sparkes et al., 2010). Moreover, those struggling in school often lack a sense of belonging to the school community (Neel and Fuligni, 2013). It is reasonable that they seek another arena for place to fit in and prove their worth; moreover, there is a concern that going 'all in' in sports is accompanied by an orientation *away* from school (Owen et al., 2022).

Data and methods

Data. This study is based on surveys of a sample of 387 individuals aged between 16 and 19 years (mean 17.11, SD = 1.52) from 30 teams in 27 different sports clubs spread across Norway. The sample was selected to represent variation according to team size, gender composition, team vs. individual sports, and degree of urbanization (i.e. clubs from rural and urban areas).

The data collection began by contacting coaches from the author's personal network, generally over the phone. The coaches were informed about the aim of the project and subsequently sent a more detailed description. The description stated the purpose of the project, described the data collection procedures, and informed that participation was voluntary. Coaches then provided the same description to their athletes and subsequently sent back a list of the athletes who wanted to participate with their corresponding email addresses. I then sent these athletes an email with a letter informing them of the purpose of the project as well as when, where, and how the data collection would take place and that participation was voluntary. I also told them that they would be registered as consenting to participation in the study if they began answering the questions in the electronic questionnaire. On the day of the data collection, this information was repeated on the first page of the electronic questionnaire along with a sentence informing that the respondent could stop answering questions and/or withdraw from the study at any time.

Respondents answered the survey on electronic tablets immediately before/after training sessions or at social gatherings. Completion of the survey took approximately 20 minutes. Absent athletes received the survey by email, followed by a reminder if the survey was not completed within one week. Respondents were registered as missing if they had not completed the survey after three reminders. To ensure compliance with the principle of confidentiality, the data was anonymized as quickly as possible, usually the following day after data collection. This procedure was approved by the Norwegian Centre for Research Data (NSD).

The sample statistics are presented in Table 1. The final response rate was 74% (387 of the 518 athletes who consented to participate). Examples of groups are girls aged 16 who play handball in a club, boys aged 17 who play football, and an age group (often wider, e.g., 16–18 years) that participates in cross country skiing.

The response rate (at the club level) varied between 37% and 100%. The average team size was 12.9 (min. 6, max. 20, SD = 3.4), and 56% of the respondents were male. The athletes belonged to 8 ski groups (cross-country and biathlon), 11 football groups, and 11 handball groups, which are the three most popular sports activities in Norway in terms of memberships in NIF (NIF, 2020). 11 groups were exclusively boys, 11 were exclusively girls, and the 8 ski groups were mixed gender.

Twenty-six respondents (~7 % of the total sample) had missing data pertaining to the dependent variables, which I replaced using the R-package Mice (van Buuren and Groothuis-Oudshoorn, 2011). First, I drew plausible data values from a distribution under the condition that data was missing completely at random. Next, I created five imputed datasets and used predictive mean matching as an imputation method. To create a final data set, I pooled the five imputed data sets together. Control of the data revealed that one of the respondents had given the lowest/most negative response to all questions; data for this respondent was excluded.

Measures. Inspired by measures in previous studies (see, for example Stanley and Cumming, 2010; Arnold et al., 2017; Levy et al., 2011), *enjoyment* and *sports performance* were measured by responding on a 10-point scale to the following questions: 'How much do you enjoy sports?' and 'How good are you at sports compared to your co-athletes?' To avoid fuzzy logic and grey meanings (Bass et al., 1974; Saris, 1988), I only labelled the two endmost categories, which ranged from 1 = 'Not enjoyable at all' and 'Not good at all' to 10 = 'Very enjoyable' and 'One of the best on the team'. Moreover, a subjective measure of performance was favoured over an objective assessment since the former best capture performance as a personal experience. It also enables comparisons among athletes competing in different sports and is less likely to be influenced by opponents' performance levels (Arnold et al., 2017). For both variables, values 1–5 are combined into a single lower value due to few responses to these response categories; hence, the variables run from 1–6.
Sport participation frequency measured weekly attendance at training sessions in organised sports: 'How many times a week do you attend training sessions with your team?'(from 1 = Never to 6 = five times a week). *Cultural capital* was measured by asking the question 'How many books would you say there are in your home (1 meter of a bookshelf approximately equals 50 books), on a 0–5 scale (ranging from 0 = no books to 5 = more than 1000 books)?' The cultural capital measure has been satisfactorily validated against academic achievement (Andersen and Bakken, 2019). *Grades in Norwegian, English, and mathematics* are a

combined measure of the grade points (at Christmas/summer, ranging from 1–6) in Norwegian writing, English writing, and mathematics. The grade scale is standardized back to its original grade value by dividing the variable points by three (number of subjects). *Grades in physical education* represent the grade points (at Christmas/summer, ranging from 1–6). Inspired by the *Ungdata*-survey[1], *Time spent on homework* was measured by asking the question 'How much time do you spend on average per day on homework (outside of school hours)?' with responses on a 0–7 scale (ranging from 1 = I never/almost never do homework to 7 = More than four hours). *School interest* is an index-variable of athletes' rating of their agreement with the following statements: 'I enjoy doing homework' (Homework engagement), 'I am interested in learning new things at school' (Learning enjoyment), and 'Doing well at school is important for my future' (Academic ambition), with choices ranging from 1 = Completely disagree to 5 = Completely agree. The variable is standardized back to its original grade value by dividing the variable points by 3 and showing a satisfactory level of internal consistency (Cronbach's alpha of 0.744) (Taber, 2018).

[Table 1 approximately here]

Statistical analyses. How the respondents experience sports depends on the characteristics of the team they belong to. This implies that the data contain an inherent hierarchical structure, where athletes are nested in teams. To respond to this complexity, I selected a multilevel regression model with two levels (Hox, 2002). The first level of the data contains respondents' responses, which gives us a set of fixed effects. At the second level, respondents are grouped in accordance with which of the 30 teams they belong to. To control for gender effects, the teams are classified as either boys, girls, or mixed-gender teams. This yields a set of random effects, which represent gender differences in responses (see the result section for more on how to interpret the fixed and random effects of the multilevel models).

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[1] Ungdata is a repeated cross-sectional study, designed for local surveys of adolescents in Norway. For more on the Ungdata-survey, see https://www.ungdata.no/english/

Model fit. To evaluate the model fit for the multilevel models, Akaike's Information Criterion (AIC) was used. Smaller AIC-values signify a better fit (Akaike, 1987). I began with a model that included enjoyment and sports performance and added the control variables in a stepwise manner. Only the final model is presented in the results section, as it had only minor differences from the initial model.

The selected multilevel regression model treats the relationship between the independent and dependent variables as linear. Before proceeding with this model, I checked for non-linear effects of enjoyment and sports performance on the dependent variables, which turned out not to be present in the data (see Appendices 1 and 2).

All statistical analyses were performed using R (release 4.2.2).

Results

This section comprises two parts. In the first part, I present the results from multilevel regression analyses in which I qualitatively measure sports participation—as enjoyment and sport performance—and examine associations with academic achievements (grades in Norwegian, English, Mathematics, and PE), while simultaneously controlling for participation quantity (sports participation frequency), cultural capital, and gender. In the second part, I examine the relationship for sports enjoyment and sports performance with time spent on homework and interest in school. Control variables are the same as those in the first part.

The fixed effect regression coefficients reveal the power of the correlation between the dependent and independent variables. These correlations are interpreted in the same manner as those in traditional linear regression: The coefficient value signifies how much the mean of the dependent variable changes given a one-unit shift in the independent variable while holding other variables in the model constant.

To control for gender differences, athletes are clustered in teams according to 'team gender' (i.e. boys, girls, and mixed-gender teams). This is represented as random effects: 'Within-team variance' indicates variance in grades among athletes *within* each team—for example, the variance in grades among members of a girls football team, among the members of a boys handball team, and among the members of a mixed-gender ski-team. 'Between-team variance' reveals the overall variance in grades *between* teams of different gender compositions—that is, the variance in grades between athletes from the abovementioned teams. The intraclass

correlation (ICC) ranges from 0–1 and indicates the proportion of the total variance in athletes' responses that is accounted for by team-level gender.

Academic achievements

The aim of this article to investigate if and how the quality of sports—not merely quantity—is significant for how young athletes perform and show interest in school. Beginning with grades, sports enjoyment and performance are positively correlated with grades in the theoretical subjects (Norwegian, English, and mathematics), but the correlations are not statistically significant. What really appears to matter is social background, as cultural class accounts for most of the variation in grades in these subjects ($\beta = 0.16$, $p < 0.001$) (Table 2). Grades in PE are positively associated with both the quality and quantity of sports: the athletes who deliver the best sport performances ($\beta = 0.07$, $p < 0.001$) and those with the highest sport participation frequency achieve the best grades ($\beta = 0.07$, $p < 0.05$). Moreover, those with higher sports enjoyment achieve better grades in PE, and although not statistically significant, the coefficient estimate combined with the small standard error (0.04 and 0.02) indicate a certain power of association. In summary, and as expected, sports performance positively correlates with grades ($H_{Performance\_Grades}$), and the strength of association is strongest in relation to PE. My hypotheses for sports enjoyment are only partially met. I find positive but not statistically significant correlations with grades in theoretical subjects and PE ($H_{Enjoyment\_Grades}$).

[Table 2 approximately here]

As for gender, the within-team variance and intraclass correlation is 0.51 and 0.04, respectively, for grades in Norwegian, English, and Mathematics, and 0.40 and 0.02 for PE, respectively. This implies that merely 4% and 2% of the variation in grades in these subjects are attributable to the team level (which is grouped according to gender—boys teams, girls teams, and mixed-gender teams), while the remaining variation is due to differences between athletes within teams (regardless of team gender composition).

Time spent on homework

Table 3 shows a negative and statistically significant correlation between time spent on homework and sports performance ($\beta = -0.11$, $p < 0.01$). This implies that contrary to my expectation (H$_{Performance\_Homwork}$), the better athletes are at sports, the less time they spend on homework. Since there is a positive but weak association between enjoyment in sport and time spent on homework, my hypothesis is rejected (H$_{Enjoyment\_Homework}$). When it comes to the control variables, sports participation frequency and cultural capital correlate positively with time spent on homework, but the association is not very strong. Moreover, gender reveals an ICC score of 0.06. Thus, only 6% of the variation in time spent on homework is attributable to the team level.

[Table 3 approximately here]

School interest

From Table 3, it is evident that my hypothesis of a positive correlation between school interest and sports enjoyment are confirmed ($\beta = 0.10$, $p < 0.01$) (H$_{Enjoyment\_School\_Interest}$). Next, my hypothesis that better sports performances positively correlate with school interest is not supported (H$_{Performance\_School\_Interest}$). Instead, the results go in the opposite direction ($\beta = -0.06$, $p < 0.05$). Moreover, there are no significant variations in school interest between athletes of different genders, levels of sport participation frequency, or cultural capital.

Discussion

The purpose of this study was to understand the significance of two qualitative aspects of sports—enjoyment and performance—in the relationship between participation in sports and school performance and interest.

In this discussion, I examine how these qualitative aspects of sports can contribute to giving more weight to the three more established explanatory factors – (1) selection, (2) the corresponding logics between sports and school, and (3) competing time use. A more complete understanding of the variables also requires examining their wider explanatory value, and I do this for the role of sports for social inequalities in schools. I follow this schema for each of the three dependent variables.

The results revealed that youths active in sports vary in their academic achievements, time spent on school, and educational interest. Beginning with academic achievements in PE, the average grade point increased with sports-performance levels and with time spent in sports. This nuances research that have shown that PE in Norway favours students who participate in organized sports (Säfvenbom et al., 2015): PE favours those who are involved in sports *and* perform well. The importance of being a skilled athlete reveals how the performance logic of youth sports is recognized and valued in PE. Athletes/students' achievements are graded on specified aims and standards. Those who win and are among the best stand out: they achieve status not only among fellow students/co-athletes but also from teachers/coaches. Successful athletes are told by those around them that their performance is 'the right way' to do PE and sports; thus, it is also natural that they are motived to further improve their sports skills. Because these athletes master the logic of corresponding performance between sports and school, they might also obtain benefits such as self-confidence, character, discipline, and other skills useful in both sports and PE.

The corresponding logic also helps to explain how PE as a subject is influenced by sport from a social inequality perspective. As noted by Ferry et al. (2013), '…certain pupils, in particular those who are successful in sports pursued during leisure time, have opportunities for extended training during the school day to develop as athletes (training to compete)' (p. 812). Since the current study only includes respondents currently active in organised sports, the importance of sports performances in PE is probably even stronger than that indicated by the results: those who never participated in organized sports or who dropped out probably have even more difficulty meeting performance demands. This feeds into the larger discourse of the ideological differences between the school system and the organized sports movement about the nature of sport and physical activity. As indicated by (Ferry et al., 2013), neoliberal discourses have opened up schools for a sports movement that, for recruitment purposes, is interested in minimising the ideological distinctions between school PE and voluntary competitive sport. If we accept this, it could be claimed that the relationship between sports and school is influenced by a performance culture that plays a role in reproducing school-based social inequalities in PE that benefits the students who succeed in sports. In extension, the importance of sports skills for grades in PE is a voice in discourses about the ties between sports and school, ongoing struggles regarding knowledge in the field of PE, and questions raised in previous studies: What is considered good PE practice? Which understandings of content knowledge in PE is currently dominant among teachers and in teacher education?

How do we avoid prejudices against those not physically active in their leisure time? (Larsson et al., 2018; Dowling, 2011).

For grades in the theoretical subjects (English, Norwegian and Mathematics), there were only small variations in the athletes' enjoyment and sport performance levels. What is really of significance is cultural capital, which indicates that the corresponding performance logic between sports and school is not as important for these subjects as it is for PE. This is in line with the reasoning of Bourdieu (1996), who argues that cultural capital is less relevant when goals are more precise, easier to measure, and achieved through hard work. When tasks are more cognitively demanding, as with the theoretical subjects, cultural capital is indeed more important. This points to the significance of recruitment and selection processes: Sports recruits more from higher social classes (Seippel et al., 2011) who tend to get better grades in theoretical subjects, while the correlations with PE are weaker (Bakken and Elstad, 2012). Furthermore, many of these youths' parents have sports experience and time to participate in their children's sports activities and education (Stefansen et al., 2018; Bæck, 2010). Overall, the positive correlation between cultural capital and grades in theoretical subjects and the absence of negative correlations for cultural capital and the other dependent variables are suggestive of class-based differences where children with parents from higher cultural classes seems to find themselves at home in sports and simultaneously perform well at school. The positive correlation between the athletes' level of performance and grades in PE emphasize this aspect: sports may be structured in ways that are a good fit for youths from the upper classes, but regardless of social background, the performance logic of sports simultaneously rewards hard work, effort, and the acquisition of physical skills, which pays off in PE.

PE grades also correlate positively with enjoyment, but the strength of the connection is weaker than that for sports performance. There are probably two reasons for this, both of which are traceable to selection processes for sports. First, on average, the respondents greatly enjoy sports (see Table 1), which is not surprising. They have stayed on in sports when many others drop out, so they should be homogenous when it comes to what makes sports enjoyable. Second, we need to consider the high level of cultural capital among the respondents (see Table 1). As already mentioned, athletes with high cultural capital probably inhibit cultural advantages that ease adaption into both sports and school. These factors may also explain the general absence of gender-variances: gender differences in school performance are relatively small in the higher social classes (Klevan et al., 2016) and athletes should be more homogenous when sports become more serious (Persson et al., 2020). Thus,

the boys and girls in the sample probably have similar views on sports' performance demands and what makes sports enjoyable and probably do not see the relationship between organized sports and school as a zero-sum game.

Moving on to the second dependent variable, homework, the most important finding was the negative association with performing well in sports. Here Coleman's (1961) zero-sum model is more relevant. This finding reflects that developing sporting skills requires training that can take up free time. However, the problem is also structural: sports takes place at set times and the best athletes probably takes attendance very seriously. Therefore, it is probably not the total use of time that is most important, but the organization of time-use. If so, Marsh's (1992) engagement model offers a suitable lens for interpreting these findings. Good sports performances are not only about time but also focus and commitment. Improving sports skills, being judged better than others and getting status and recognition for it are all motivating factors for increased investment in sports. Given how sports is highly structured and takes place in leisure time, this can reduce flexibility and attention given to homework.

For the third dependent variable, school interest, the results revealed a negative association with sports performance and a positive one with enjoyment. When discussing the weaker school interest among the highest-performing athletes, it is useful to stay with Marsh's engagement model. It could be that their commitment to sports is so encompassing that it distracts them from school. Importantly, those who performed well in sports achieved equally good grades as their co-athletes, which adds new insights into the engagement explanation: Investing in and achieving high levels of sports performance is not detrimental to similar and concrete performance-related tasks in school—that is, on formal measurable tests. This points to how a strong commitment to sport and a correspondingly weak commitment to school can be both rational and calculated: it is suggestive of a process in which homework and academic ambitions are deliberately deprioritized, which indicates the challenge for youths to balance sports and school. Many athletes struggle with planning, prioritising, and negotiating their time between sports and school (Christensen and Sørensen, 2009; Jakobsson and Lundvall, 2021). Programs that aim to manage demands and expectations of sports and school are on the rise but are currently offered primarily to youths enrolled in sports school programmes or in elite sports schools (Sæther et al., 2022). While some of the athletes in the current study attended sports school programmes, most did not. I argue that offering such support systems on a broader scale could be a double-edged sword. On the one hand, a sports movement and school system that cooperate to follow up a larger number of sport participants will benefit

those seeking to succeed in both. On the other hand, as shown above in relation to PE, closer cooperation can have the effect of reproducing social inequalities in the field of education that benefits those who participate in sports over other students.

As noted earlier, the results revealed a strong positive relationship between enjoyment in sports and school interest. The simplest interpretation is that enjoyment reflects a selection process: sports appeals to youths who have the 'right' social background to thrive in sports and in school, and they become more homogenous with age. Simultaneously, this explanation underplays the possible existence and significance of a more fundamental and less class-based social potential inherent in sports (Jones, 2001). Sports activities are considered to aid in the development of 'soft skills'—such as hard work, cooperation, trust, communication, respect for rules—which can be important for opportunities later in life, including educational aspirations (Putnam, 2016). It is possible that those who enjoy sports are particularly well positioned to absorb these skills and, thus, differ from other athletes in terms of school interest. Skauge and Hjelseth (2021) cite Bohnert et al. (2010) to highlight how such explanations regarding executive functioning in sports have been used to explain the connection between other organized leisure activities and school motivation. I suggest that enjoyment accentuates much of sport's social potential and its executive functioning and is, thus, a standalone explanation (at least in relation to school interest) that differs from the more established explanations of selection, corresponding logics (which are more about competition and sports performance), and sports and school as social arenas competing for youths' time and attention.

Conclusions and limitations

It is well documented that students who participate in sports tend to do slightly better and show more interest in school than their non-sportive peers. One possible explanation for this is that this is simply about quantity: participating versus not participating and/or amount of participation. Simultaneously, as this study shows, using more qualitative measures of sports participation reveals a more complex relationship between sports and school.

To date, positive associations between sports and school have been found based on simple distinctions between sports participants and non-participants and explained as selection effects with an emphasis on social background, the corresponding logics between sports and school, and the challenge of balancing time spent on sports and school. This study has revealed that moving beyond the participation/non-participation dichotomy can further our

understanding of the links between sports and school. It is evident that discussions of the role of sports in relation to school can benefit from not only quantitatively examining sports participation but also from being more attentive to how athletes qualitatively experience their sports participation: whether it is enjoyable and how well they perform. Moreover, the variations in athletes' school performance and interest in school according to their enjoyment and sports performance levels also help illuminate the role of sports in social inequality issues in the school context. In conclusion, it is evident that more fine-grained measures of sports participation can further our understanding of the relationship between sports and school.

This study has several limitations. First, it is based on answers from only 387 respondents. This is a small number compared to previous studies on the relationship between sports and school in the Norwegian context, where the number of respondents range between 1,788 (Mehus, 2016) and 128,398 (Skauge and Hjelseth, 2021). Hence, a follow-up study with an appropriate sample size is necessary to validate the findings. The small sample also made it challenging to examine if the significance of enjoyment and sports performance for the relationship between sports and school depend on other factors. For example, future studies should account for the interaction between sports enjoyment and social background.

Another challenge in the study design was the task of measuring enjoyment. Sports is associated with experiencing numerous emotions, which makes it difficult to grasp deep, stable feelings of enjoyment. Furthermore, enjoyment in sports is likely influenced by conditions that are beyond sports: teens go through rough patches, take up part-time jobs, and many simply lose interest in sports. Future studies should consider employing a time-series analysis to obtain more reliable data and address the question of causality: For example, this can help resolve the question of what comes first, the good sports performance or the lesser time spent on homework? The cross-sectional design of this study does not allow me to conclude with certainty that negative correlations with school are due to perfecting sports performances that take time, focus, and concentration away from homework. It may also be that those who end up as high-performing athletes initially have little school motivation and choose to spend their free time and attention on becoming good at sports.

Moreover, the scope of this study was limited to examining the significance of enjoyment and performance levels. Future studies should examine additional qualitative aspects of sports participation, such as activity preferences and relationships with coaches, fellow athletes, and parents.

Finally, the high grade-levels among the respondents raises concerns regarding data biases. During the recruitment process, the athletes were informed that the survey included questions regarding their performance levels in sports and at school. While the high grades may simply be the result of more recruitment of youths in sports from the upper classes, it may also be that athletes with poorer school performances chose not to participate (non-response bias where the respondents are atypical in their academic performance) and/or adapted their answers so that they appeared to be performing better at school than they actually were (social desirability bias) (Stoop, 2016; Stockemer et al., 2019). Many also quit sports at this age to focus on school (Persson et al., 2020). Hence, athletes who struggle with balancing sports and school have already chosen school over sports and are, thus, not included in the sample.

About the article

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Appendices

Appendix 1. Correlations for sport enjoyment with grades, time spent on homework and school interest.

Appendix 2. Correlations for sport performance with grades, time spent on homework and school interest.

Table 1. Descriptive statistics of the dependent and independent variables in the study.

	Range	Mean	Min	Max	SD	N
Independent variables						
Enjoyment	1:6	4.96	1	6	1.39	385
Sport performance	1:6	3.37	1	6	1.75	385
Sport participation frequency	1:5	3.93	1	5	1.11	386
Gender	1:2	1.43	1	2	0.50	383
Cultural capital	1:6	3.95	1	6	1.15	382
Dependent variables						
Grades: Norwegian/English/Mathematics	1:6	4.33	1	6	0.75	386
Grades: Physical education (PE)	1:6	5.35	1	6	0.65	386
Time spent on homework	1:7	3.04	1	7	1.37	386
School interest	1:5	3.80	1	5	0.90	386

Table 2. Grades, by enjoyment, sport performance, sport participation frequency, cultural capital and within- and between team variance (gender).

	Grades: Norwegian, English and Mathematics		Grades: PE	
	B	*SE*	*B*	*SE*
Fixed effects				
Intercept	3.33***	0.23	4.47***	0.28
Enjoyment	0.04	0.03	0.04	0.02
Sport performance	0.02	0.02	0.07***	0.02
Sport participation frequency	0.03	0.03	0.07*	0.03
Cultural capital	0.16***	0.03	0.04	0.03
Random effects				
Within-team variance	0.51		0.40	
Between-team variance	0.02		0.01	
ICC	0.04		0.02	
Model fit				
Marginal R^2 / Conditional R^2	0.070 / 0.106		0.075 / 0.085	
AIC	863.204		771.665	

Note: p *< .05; **p < .01; ***p < .001

Table 3. Time spent on homework and school interest, by enjoyment, sport performance, sport participation frequency, cultural capital and within- and between team variance (gender).

	Time spent on homework		School interest	
	B	*SE*	*B*	*SE*
Fixed effects				
Intercept	2.99***	0.45	3.12***	0.27
Enjoyment	0.01	0.05	0.10**	0.03
Sport performance	-0.11**	0.04	-0.06*	0.03
Sport participation frequency	0.02	0.06	0.03	0.04
Cultural capital	0.08	0.06	0.06	0.04
Random effects				
Within-team variance	1.75		0.78	
Between-team variance	0.11		0.00	
ICC	0.06		0.00	
Model fit				
Marginal R^2 / Conditional R^2	0.024 / 0.079		0.039 / 0.043	
AIC	1331.776		1020.648	

Note: $p < .05$; **$p < .01$; ***$p < .001$

Appendix 1. Correlations for sport enjoyment with grades in Norwegian, English and Math; grades in PE; Time spent on homework; and school interest.
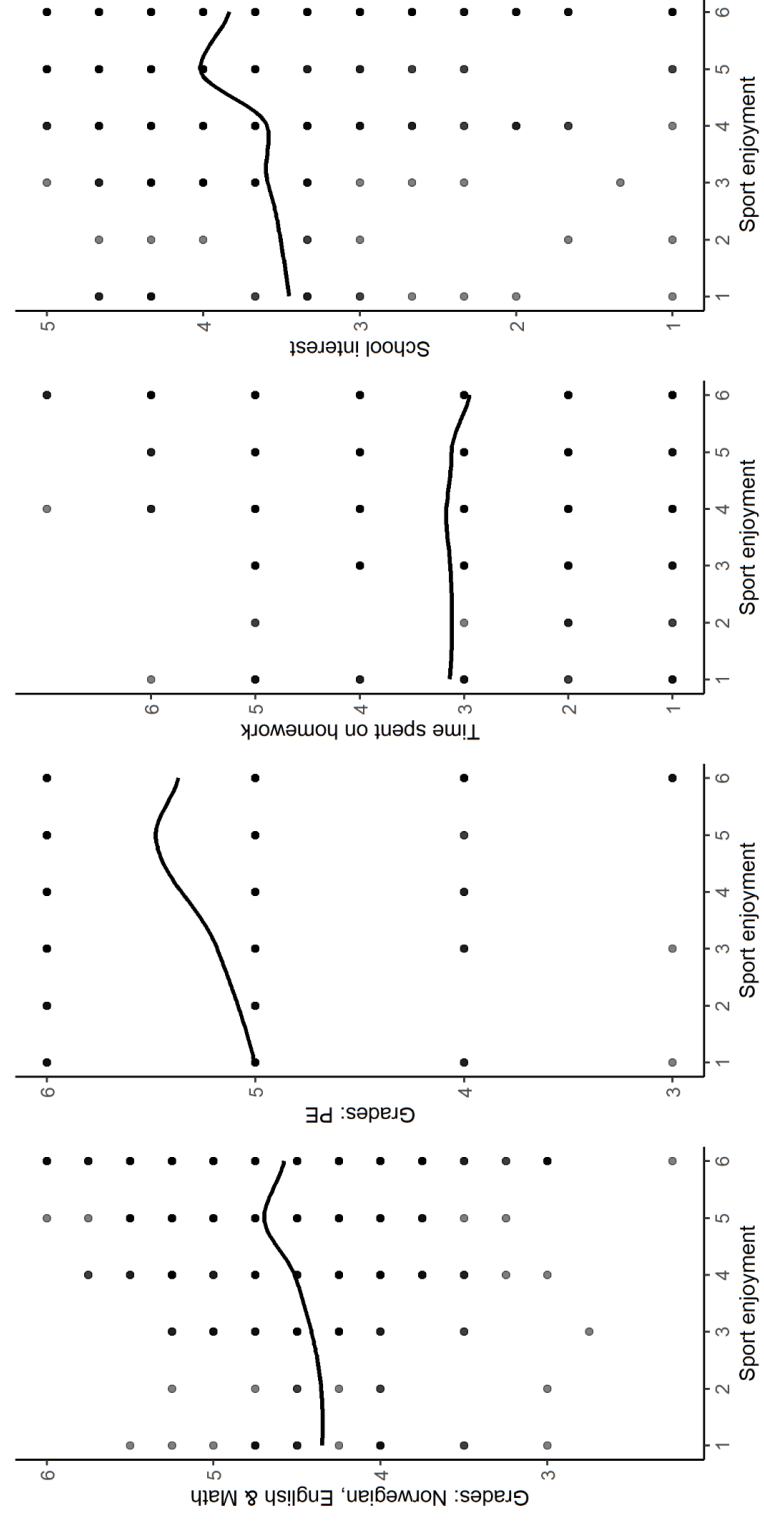
Appendix 2. Correlations for sport performance with grades in Norwegian, English and Math; grades in PE; Time spent on homework; and school interest.
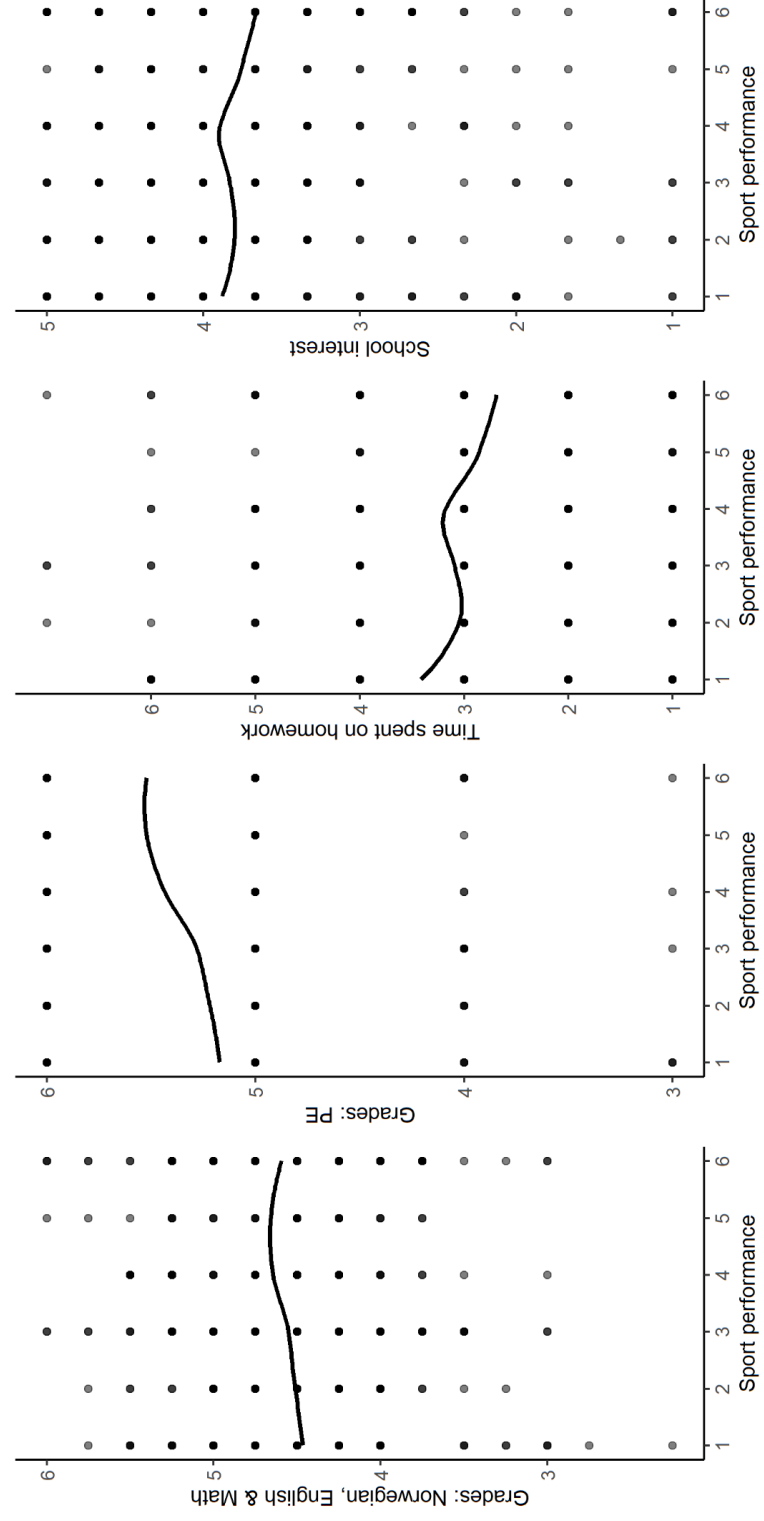
Appendices

Appendix 1: Research approval

Appendix 2: Information letter to research participants

Appendix 3: Survey questionnaire (in Norwegian)

Håvard Bergesen Dalen
Seksjon for kultur og samfunn Norges idrettshøgskole
Postboks 4014 Ullevål stadion
0806 OSLO

Vår dato: 26.05.2016   Vår ref: 48051 / 3 / HJP   Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 21.03.2016. All nødvendig
informasjon om prosjektet forelå i sin helhet 26.05.2016. Meldingen gjelder prosjektet:

48051	Sosiale nettverk i organisert idrett
Behandlingsansvarlig	Norges idrettshøgskole, ved institusjonens øverste leder
Daglig ansvarlig	Håvard Bergesen Dalen

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være
regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet
gjennomføres.

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

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

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

Personvernombudet vil ved prosjektets avslutning, 15.03.2017, rette en henvendelse angående
status for behandlingen av personopplysninger.

Vennlig hilsen

Kjersti Haugstvedt

Hanne Johansen-Pekovic

Kontaktperson: Hanne Johansen-Pekovic tlf: 55 58 31 18
Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Personvernombudet for forskning

Prosjektvurdering - Kommentar

FORMÅL

Formålet med prosjektet er å kartlegge, beskrive og analysere sosiale nettverk i organisert ungdomsidrett.

REKRUTTERING, UTVALG OG DATAINNSAMLING

Utvalget vil bestå av mellom 450-800 utøvere og trenere i organisert idrett. Utøverne vil være mellom 16 og 17 år, og trenerne vil være voksne.

Datamaterialet vil bli samlet inn ved elektronisk spørreskjema/nettverksundersøkelse, der elevene blir bedt om å evaluere seg selv og lagkameratene i forhold til idrett og sosialt liv. Det er kun de som har samtykket til deltagelse, som vil inngå på navnelistene i datasettet.

I vurdering av prosjektet har det vært diskutert mulig identifisering av ungdommene som ikke ønsker å delta, ved at de er utelatt fra navnelisten. Etter en helhetsvurdering av prosjektet anser Personvernombudet at dette ikke er til vesentlig ulempe for de som velger å ikke delta, og at innsamlingen kan foregå som beskrevet ovenfor. Det er vektlagt at ungdommene er 16 til 17 år, og har oppnådd en viss modenhet i forhold til sosiale relasjoner.

INFORMASJON OG SAMTYKKE

Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Reviderte informasjonsskriv mottatt 26.05.16 er godt utformet.

Personvernombudet er enig i forskers vurdering om at ungdommene som er i alderen 16 til 17 år har selvstendig samtykkekompetanse.

BELØNNING

Deltagerne kan velge å være med i trekningen av 3 gavekort av 1000 kroner, ved å oppgi epostadressen sin i spørreskjemaet. Personvernombudet mener at dette er en kurant måte å kompensere for deltakernes tidsbruk. Vi minner om at belønning i seg selv ikke skal være motivasjon til å delta i forskning, og at du må forsikre deg om at dette ikke er årsaken til at noen velger å delta.

SENSITIVE PERSONOPPLYSNINGER

Etter en helhetsvurdering av prosjektet vurderer vi det slik at du vil samle inn sensitive personopplysninger. Vi har derfor lagt dette punktet til i prosjektmeldingen din.

INFORMASJONSSIKKERHET

Vi legger til grunn at behandlingen av personopplysninger er i samsvar med interne retningslinjer for informasjonssikkerhet ved Norges idrettshøgskole.

Informantene vil fylle ut spørreskjema på nettbrett som forsker leverer ut. Nettbrettene er ikke koblet opp mot internett. Forsker vil manuelt overføre datasettene til PC ved Norges idrettshøgskole, og pseudonymisere disse ved registrering. Som avtalt per telefon 04.05.16 vil du beholde en liste med epostadresser til datainnsamlingen er utført, for å kunne trekke premier.

PROSJEKTSLUTT OG ANONYMISERING
Vi forstår det slik at du har lagt opp til å anonymisere datamaterialet innen 15.03.17. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes.
Vanligvis vil anonymisering innebære at:
- direkte personidentifiserende opplysninger slettes (inkludert koblingsnøkkel)
- indirekte personidentifiserende opplysninger slettes eller grovkategoriseres (f.eks. bakgrunnsopplysninger som arbeidsplass, stilling, alder og kjønn)

Forespørsel om deltakelse i forskningsprosjektet

" Sosiale nettverk i idretten"

Formål
Dette er et spørreskjema som besvares i forbindelse med et forskningsprosjekt på Norges Idrettshøgskole. Formålet med prosjektet er å kartlegge trenings- og aktivitetsvaner, vennskap, og samhold. Doktogradsstipendiat Håvard Bergesen Dalen er ansvarlig for prosjektet.

Det tar omtrent 10-15 minutter å gjennomføre undersøkelsen.

Spørsmålene du svarer på handler om trening, hva du ellers gjør i fritiden, og hvem du pleier å være sammen med. I noen av spørsmålene ber vi deg om å evaluere hvor gøy du synes idrett er, hvor flink du synes du er, i din idrett og din fremtid i idretten. I andre spørsmål blir du bedt om å evaluere lagkameratene dine, blant annet om hvor flinke og populære du mener de er. De andre i laget som svarer på spørreskjemaet vil gjøre de samme evalueringene.

Treneren din er også invitert til å delta i denne studien. Han/henne vil også gjøre en liknende evaluering av seg selv og av spillergruppen som du er en del av.

Dersom du velger å ikke delta vil ditt navn ikke bli inkludert i evalueringen, hverken av trener eller andre lagmedlemmer.

Alle spillerne som deltar i studien er med i trekningen av 3 gavekort til en verdi av 1000 kr.

Hva skjer med informasjonen om deg?
Alle personopplysninger vil bli behandlet konfidensielt. Det er kun stipendiat Håvard Bergesen Dalen og veileder Ørnulf Seippel som har tilgang på disse. Prosjektet avsluttes etter planen i juni 2019. Da vil datamaterialet anonymiseres.

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Ta kontakt med doktogradsstipendiat Håvard Bergesen Dalen (tlf. 909 85 195) eller veileder Ørnulf Seippel (tlf. 971 67 500) hvis du har spørsmål om studien.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Forespørsel om deltakelse i forskningsprosjektet

"Sosiale nettverk i idretten"

Formål

Dette er et spørreskjema som besvares i forbindelse med et forskningsprosjekt på Norges Idrettshøgskole. Formålet med prosjektet er å kartlegge trenings- og aktivitetsvaner, vennskap, og samhold. Du er invitert til å delta fordi du som trener kan gi verdifull innsikt i dette temaet. Doktogradsstipendiat Håvard Bergesen Dalen er ansvarlig for prosjektet.

Det tar omtrent 10-15 minutter å gjennomføre undersøkelsen.

Spørsmålene du svarer på handler om trenerstiler, trenererfaring, og utøverne i gruppa. I noen av spørsmålene ber vi deg om å evaluere deg selv som trener, blant annet om hvordan du opplever din trenerstil. I andre spørsmål blir du bedt om å evaluere hver enkelt utøvers sosiale og idrettslige ferdigheter.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt. Det er kun stipendiat Håvard Bergesen Dalen og veileder Ørnulf Seippel som har tilgang på disse. Prosjektet avsluttes etter planen i juni 2019. Da vil datamaterialet anonymiseres.

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Ta kontakt med doktogradsstipendiat Håvard Bergesen Dalen (tlf. 909 85 195/mail hbd@nih.no) eller veileder Ørnulf Seippel (tlf. 971 67 500/mail ornulf.seippel@nih.no) hvis du har spørsmål om studien.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Hei!

Takk for at du deltar i undersøkelsen. Du samtykker til å delta i undersøkelsen når du begynner å svare på spørsmål. Deltakelsen er frivillig, og du kan når som helst stoppe å svare på spørsmål eller trekke deg fra undersøkelsen. Når du er ferdig med å svare på spørsmålene på siden, trykker du på knappen "Neste".

Rekk opp hånda dersom du trenger hjelp med å svare på spørsmål.

Hva heter du? Skriv fornavn og etternavn.

_____

Nå kommer noen spørsmål som handler om ditt forhold til idrett. Vi er her interessert i deltakelsen din i [idrettgruppe i idrettslag], ikke andre idrettslag du eventuelt er medlem i.

Hvor viktig er disse grunnene til å holde på med [idrett] for deg?

	Ikke viktig	Litt viktig	Svært viktig
Jeg liker å konkurrere og måle krefter	(1) ❑	(2) ❑	(3) ❑
Jeg holder på med [idrett] for å se bra ut	(1) ❑	(2) ❑	(3) ❑
Jeg synes det er gøy å trene	(1) ❑	(2) ❑	(3) ❑
Jeg liker å være sammen med de andre på treningen	(1) ❑	(2) ❑	(3) ❑
Jeg vil holde meg slank	(1) ❑	(2) ❑	(3) ❑
Jeg holder på med [idrett] for å få større eller mer markerte muskler	(1) ❑	(2) ❑	(3) ❑

På en skala fra 1-10, hvor god er du i [idrett] i forhold til de andre på laget?

(1) ❑ 1 Ikke god i det hele tatt

(2) ❑ 2

(3) ❑ 3

(4) ❑ 4

(5) ❑ 5

(6) ❑ 6

(7) ❑ 7

(8) ❑ 8

(9) ❑ 9

(10) ❑ 10 En av de aller beste

På en skala fra 1-10, hvor viktig er idrett for deg?

(1) ❑ 1 Ikke viktig i det hele tatt

(2) ❑ 2

(3) ❑ 3

(4) ❑ 4

(5) ❑ 5

(6) ❑ 6

(7) ❑ 7

(8) ❑ 8

(9) ❑ 9

(10) ❑ 10 Svært viktig

På en skala fra 1-10, hvor gøy synes du det er å holde på med idrett?

(1) ❑ 1 Ikke gøy i det hele tatt

(2) ❑ 2

(3) ❑ 3

(4) ❑ 4

(5) ❑ 5

(6) ❑ 6

(7) ❑ 7

(8) ❑ 8

(9) ❑ 9

(10) ❑ 10 Kjempegøy

På en skala fra 1-10, hvor sannsynlig tror du det er at du holder på meg idrett om 5 år?

(1) ❑ 1 Ikke sannsynlig i det hele tatt

(2) ❑ 2

(3) ❑ 3

(4) ❑ 4

(5) ❑ 5

(6) ❑ 6

(7) ❑ 7

(8) ❑ 8

(9) ❑ 9

(10) ❑ 10 Svært sannsynlig

Nå kommer noen påstander om å være en del av en idrettsgruppe. Hvor enig eller uenig er du i disse påstandene?

	Svært uenig	Uenig	Hverken enig eller uenig	Enig	Svært enig
Jeg føler meg som en del av laget	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐
Jeg føler meg forskjellig fra de andre på laget	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐
Jeg føler meg godtatt av de andre på laget	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐
Jeg er ikke redd for å dumme meg ut foran de andre på laget	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐

Hva er viktig for å få status i laget?

	Øker statusen mye	Øker statusen litt	Har ingen betydning	Minsker statusen litt	Minsker statusen mye
Å være god på skolen	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å være flink i idrett	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å ha et bra utseende	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å være til å stole på	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å ha moteriktige klær	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å få mange "likes" på sosiale medier	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å være interessert i politikk eller samfunnsspørsmål	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å bry seg om lagkameratene	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Øker eller minsker statusen din hvis du...?

	Øker statusen mye	Øker statusen litt	Har ingen betydning	Minsker statusen litt	Minsker statusen mye
Snuser	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Røyker	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Drikker deg full	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Røyker hasj eller marihuana	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Hvem mener du er BEST på laget ditt? Velg opptil 4 lagkamerater.

	Utøver 1	Utøver 2	Utøver 3	Utøver 4	Utøver 5	Utøver 6	Utøver 7	Utøver 8	Utøver 9	Utøver 10	Utøver 11	Utøver 12	Utøver 13	Utøver 14	Utøver 15	Utøver 16	Utøver 17	Utøver 18	Utøver 19	Utøver 20
1	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
2	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
3	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
4	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑

Hvem mener du er MEST POPULÆR på laget ditt? Velg opptil 4 lagkamerater.

	Utøver 1	Utøver 2	Utøver 3	Utøver 4	Utøver 5	Utøver 6	Utøver 7	Utøver 8	Utøver 9	Utøver 10	Utøver 11	Utøver 12	Utøver 13	Utøver 14	Utøver 15	Utøver 16	Utøver 17	Utøver 18	Utøver 19	Utøver 20
1	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
2	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
3	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
4	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑

Å være MEST POPULÆR er ikke nødvendigvis det samme som å være BEST LIKT.

Hvem mener du er BEST LIKT på laget ditt? Velg opptil 4 lagkamerater.

	Utø ver 1	Utø ver 2	Utø ver 3	Utø ver 4	Utø ver 5	Utø ver 6	Utø ver 7	Utø ver 8	Utø ver 9	Utø ver 10	Utø ver 11	Utø ver 12	Utø ver 13	Utø ver 14	Utø ver 15	Utø ver 16	Utø ver 17	Utø ver 18	Utø ver 19	Utø ver 20
1	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
2	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
3	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
4	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑

Hvis du skulle plukket ut opptil 4 utøvere fra laget ditt som har størst sjanse til å være god om 5 år, hvem ville du valgt?

	Utø ver 1	Utø ver 2	Utø ver 3	Utø ver 4	Utø ver 5	Utø ver 6	Utø ver 7	Utø ver 8	Utø ver 9	Utø ver 10	Utø ver 11	Utø ver 12	Utø ver 13	Utø ver 14	Utø ver 15	Utø ver 16	Utø ver 17	Utø ver 18	Utø ver 19	Utø ver 20
1	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
2	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
3	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑
4	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑	(8) ❑	(9) ❑	(10) ❑	(11) ❑	(12) ❑	(13) ❑	(14) ❑	(15) ❑	(16) ❑	(17) ❑	(18) ❑	(19) ❑	(20) ❑

Hvor mange år har du vært medlem av idrettslaget?

_____

Hvor mange treninger med [idrettsgruppe] deltar du vanligvis på i løpet av en uke?

(1) ❑ Ingen

(2) ❑ 1 trening

(3) ❑ 2 treninger

(4) ❑ 3 treninger

(5) ❑ 4 treninger

(6) ❑ 5 treninger eller mer

Har du gått på skolen med noen av de andre utøverne på laget ditt? Sett et kryss foran de du går eller har gått på skole med?

(hvis du ikke har gått på skole med noen, hopper du over dette spørsmålet)

(1) ❑ Utøver 1

(2) ❑ Utøver 2

(3) ❑ Utøver 3

(4) ❑ Utøver 4

(5) ❑ Utøver 5

(6) ❑ Utøver 6

(7) ❑ Utøver 7

(8) ❑ Utøver 8

(9) ❑ Utøver 9

(10) ❑ Utøver 10

(11) ❑ Utøver 11

(12) ❑ Utøver 12

(13) ❑ Utøver 13

(14) ❑ Utøver 14

(15) ❑ Utøver 15

(16) ❑ Utøver 16

(17) ❑ Utøver 17

(18) ❑ Utøver 18

(19) ❑ Utøver 19

(20) ❑ Utøver 20

Du er medlem i idrettsgruppe [navn på idrettsgruppe]. Er du medlem i andre idrettsgrupper i

[idrettslaget]?

(1) ❑ Ja

(2) ❑ Nei

Hvilke andre idrettsgrupper er du med i? (F.eks. idrett x, idrett y, idrett z)

Idrettsgruppe   _____

_____

_____

_____

_____

Idrettsgruppe   _____

_____

_____

_____

Idrettsgruppe   _____

_____

Idrettsgruppe   _____

   _____

   _____

   _____

   _____

Idrettsgruppe   _____

   _____

   _____

   _____

   _____

   _____

   _____

Er du medlem av andre idrettslag [enn idrettslag]?

(1)   ❑ Ja

(2)   ❑ Nei

Nå kommer noen spørsmål som handler om hvilke av dine lagkamerater du pleier å finne

på forskjellige ting med.

Hvor ofte er du med på følgende aktiviteter:

	Aldri	Sjelden	1-2 ganger i måneden	1-2 ganger i uka	Minst 3 ganger i uka
Gruppetimer på treningssenter	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Frivekt- og apparattrening på treningssenter	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Trener eller trimmer på egen hånd (løper, svømmer, sykler eller andre ting)	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Danser (som trening)	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Sammen med hvilke av lagkameratene dine pleier du å være med på:

(Hvis du ikke har gjort noen av aktivitene med noen, hopper du over dette spørsmålet)

	Gruppetimer på treningssenter	Frivekt- og apparattrening på treningssenter	Trener eller trimmer på egenhånd (løper, svømmer, sykler eller andre ting)	Danser (som trening)
Utøver 1	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 2	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 3	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 4	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 5	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 6	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 7	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 8	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 9	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 10	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 11	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 12	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 13	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 14	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 15	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 16	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 17	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 18	(1) ❑	(2) ❑	(3) ❑	(4) ❑

	Gruppetimer på treningssenter	Frivekt- og apparattrening på treningssenter	Trener eller trimmer på egenhånd (løper, svømmer, sykler eller andre ting)	Danser (som trening)
Utøver 19	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Utøver 20	(1) ❑	(2) ❑	(3) ❑	(4) ❑

Her er det en liste med forskjellige aktiviteter. I løpet av de siste to ukene, hvem av lagkameratene har du gjort de forskjellige tingene sammen med?

	Vært på shopping	Sett sport sammen, enten live eller på TV	Vært ute og spist (f.eks kebab, McDonalds, restaurant)	Drevet med skateboard, snowboard eller annen uorganisert aktivitet	Gjort lekser sammen med
Utøver 1	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 2	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 3	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 4	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 5	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 6	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 7	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 8	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 9	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 10	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

	Vært på shopping	Sett sport sammen, enten live eller på TV	Vært ute og spist (f.eks kebab, McDonalds, restaurant)	Drevet med skateboard, snowboard eller annen uorganisert aktivitet	Gjort lekser sammen med
Utøver 11	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 12	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 13	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 14	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 15	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 16	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 17	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 18	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 19	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Utøver 20	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Her er det en liste med forskjellige aktiviteter. I løpet av de siste to ukene, hvem av lagkameratene har du gjort de forskjellige tingene sammen med?

	Spilt TV/Dataspill som FIFA, PES, FM?	Vært hjemme hos	Hatt besøk av	Vært sammen uten å gjøre noe spesielt (f.eks. vært ute, eller på kjøpesenter)	Vært sammen på fest	Vært på tur (hyttetur, telttur etc.)	Vært på kino eller teater	Snakket med på skolen (f.eks. i friminutten)	Vært på samme møte i Røde Kors, speider, eller politiske partier	Vært på samme dans- drama- eller musikk gruppe (korps, band etc.)
Utøver 1	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 2	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 3	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 4	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 5	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 6	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 7	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 8	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 9	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 10	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 11	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 12	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 13	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑

	Spilt TV/Dataspill som FIFA, PES, FM?	Vært hjemme hos	Hatt besøk av	Vært sammen uten å gjøre noe spesielt (f.eks. vært ute, eller på kjøpesenter)	Vært sammen på fest	Vært på tur (hyttetur, telttur etc.)	Vært på kino eller teater sammen med	Snakket med på skolen (f.eks. i friminutten)	Vært på møte i Røde Kors, speider, eller politiske partier	Vært på samme dans- drama- eller musikk gruppe (korps, band etc.)
Utøver 14	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 15	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 16	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 17	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 18	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 19	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑
Utøver 20	(1) ❑	(2) ❑	(3) ❑	(10) ❑	(4) ❑	(8) ❑	(6) ❑	(5) ❑	(7) ❑	(9) ❑

Med hvilke av dine lagkamerater pleier du å:

	...dele rom eller sove ved siden av på bortekamper/cup	...snakke med i drikkepausene på trening	...gjøre øvelser sammen med på trening
Utøver 1	(1) ❑	(2) ❑	(3) ❑
Utøver 2	(1) ❑	(2) ❑	(3) ❑
Utøver 3	(1) ❑	(2) ❑	(3) ❑
Utøver 4	(1) ❑	(2) ❑	(3) ❑
Utøver 5	(1) ❑	(2) ❑	(3) ❑
Utøver 6	(1) ❑	(2) ❑	(3) ❑
Utøver 7	(1) ❑	(2) ❑	(3) ❑
Utøver 8	(1) ❑	(2) ❑	(3) ❑
Utøver 9	(1) ❑	(2) ❑	(3) ❑
Utøver 10	(1) ❑	(2) ❑	(3) ❑
Utøver 11	(1) ❑	(2) ❑	(3) ❑
Utøver 12	(1) ❑	(2) ❑	(3) ❑
Utøver 13	(1) ❑	(2) ❑	(3) ❑
Utøver 14	(1) ❑	(2) ❑	(3) ❑
Utøver 15	(1) ❑	(2) ❑	(3) ❑
Utøver 16	(1) ❑	(2) ❑	(3) ❑
Utøver 17	(1) ❑	(2) ❑	(3) ❑
Utøver 18	(1) ❑	(2) ❑	(3) ❑
Utøver 19	(1) ❑	(2) ❑	(3) ❑
Utøver 20	(1) ❑	(2) ❑	(3) ❑

Hvilke av dine lagkamerater:

	Kjente du før du begynte med [idrett]?	Går i samme klasse som deg på skolen?	Sender du jevnlig bilder/video? (f.eks. med Snapchat)
Utøver 1	(1) ❏	(2) ❏	(3) ❏
Utøver 2	(1) ❏	(2) ❏	(3) ❏
Utøver 3	(1) ❏	(2) ❏	(3) ❏
Utøver 4	(1) ❏	(2) ❏	(3) ❏
Utøver 5	(1) ❏	(2) ❏	(3) ❏
Utøver 6	(1) ❏	(2) ❏	(3) ❏
Utøver 7	(1) ❏	(2) ❏	(3) ❏
Utøver 8	(1) ❏	(2) ❏	(3) ❏
Utøver 9	(1) ❏	(2) ❏	(3) ❏
Utøver 10	(1) ❏	(2) ❏	(3) ❏
Utøver 11	(1) ❏	(2) ❏	(3) ❏
Utøver 12	(1) ❏	(2) ❏	(3) ❏
Utøver 13	(1) ❏	(2) ❏	(3) ❏
Utøver 14	(1) ❏	(2) ❏	(3) ❏
Utøver 15	(1) ❏	(2) ❏	(3) ❏
Utøver 16	(1) ❏	(2) ❏	(3) ❏
Utøver 17	(1) ❏	(2) ❏	(3) ❏
Utøver 18	(1) ❏	(2) ❏	(3) ❏
Utøver 19	(1) ❏	(2) ❏	(3) ❏
Utøver 20	(1) ❏	(2) ❏	(3) ❏

Til sist kommer noen spørsmål om deg, om familien din, og din skolegang. Vennligst svar så presist som mulig.

Når er du født?

(1) ❑ Januar

(2) ❑ Februar

(3) ❑ Mars

(4) ❑ April

(5) ❑ Mai

(6) ❑ Juni

(7) ❑ Juli

(8) ❑ August

(9) ❑ September

(10) ❑ Oktober

(11) ❑ November

(12) ❑ Desember

Er du gutt eller jente?

(1) ❑ Gutt

(2) ❑ Jente

Hvor er moren din født?

(1) ❑ Norge

(2) ❑ Annet land:

Hvor er faren din født?

(1) ❑ Norge

(2) ❑ Annet land:

Har faren og moren din utdanning på universitets- eller høyskolenivå? Hvis det er én eller flere av foreldrene dine du ikke har kontakt med, hopper du over spørsmålet som gjelder denne forelderen.

	Ja	Nei
Far	(1) ❑	(2) ❑
Mor	(1) ❑	(2) ❑

Hva jobber mor og far med? Skriv tittelen på yrket.

Yrket til mor: _____

Yrket til far: _____

Nå kommer noen påstander om hvordan du arbeider med skolearbeid. Hvor enig er du i disse påstandene?

	Helt uenig	Litt uenig	Hverken enig eller uenig	Litt enig	Helt enig
Jeg liker å gjøre skolearbeid	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
På skolen er jeg opptatt av å lære nye ting	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Gode karakterer er viktig for meg	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Å gjøre det bra på skolen er viktig for fremtiden min	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Hvor lang tid bruker du gjennomsnittlig per dag på lekser og annet skolearbeid (utenom skoletida)?

(1) ❑ Gjør aldri/nesten aldri lekser

(2) ❑ Mindre enn en halvtime

(3) ❑ 1/2-1 time

(4) ❑ 1-2 timer

(5) ❑ 2-3 timer

(6) ❑ 3-4 timer

(7) ❑ Mer enn 4 timer

Hvilke karakterer fikk du i følgende fag ved siste karakteroppgjør (jul eller sommer)?

	1	2	3	4	5	6
Norsk skriftlig, hovedmål	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑
Matematikk	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑
Engelsk skriftlig	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑
Kroppsøving	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑

Hvor mange bøker tror du det er hjemme hos dere? NB! 50 bøker er ca. 1 meter i bokhyllen

(1) ❑ Ingen

(2) ❑ Mindre enn 20 bøker

(3) ❑ 20-100 bøker

(4) ❑ 100-500 bøker

(5) ❑ 500-1000 bøker

(6) ❑ Mer enn 1000 bøker

50 bøker

Har du en eller flere venner som du virkelig kan stole på og kan betro deg til om det meste?

(1) ❑ Ja

(2) ❑ Nei

Skriv navnet på inntil tre venner du mener du kan stole på:

(du velger selv om du vil skrive navnet på 1, 2 eller 3 venner. Skriv fornavn og første bokstav

i etternavn)

Person 1 heter _____

Person 2 heter _____

Person 3 heter _____

Hvor ble du først kjent med disse personene?

	På skolen	I idretten	Annet sted
Person 1 ble jeg kjent med...	(1) ❑	(2) ❑	(3) ❑
Person 2 ble jeg kjent med...	(1) ❑	(2) ❑	(3) ❑
Person 3 ble jeg kjent med...	(1) ❑	(2) ❑	(3) ❑

Dersom du ønsker å være med i trekningen av 3 gavekort á kr 1000, vennligst oppgi din e-

postadresse:

_____

Takk for hjelpen!