

*Full Length Research Paper*

## Absentee rates in physical education in high schools: The importance of gender and study programmes

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Little is known about absenteeism in high school physical education (PE) in relation to study programme and gender. This study investigated the impact of gender and study programme on absentee rates in PE by analyzing data, using non-parametric statistical analyses, from the absentee registers for all 6928 students in Nordland Country. The results showed that the absentee rates in PE differed among four categorized studies; vocational subjects in general, and vocational subjects dominated by the girls had the highest absentee rates. Girls had a higher absentee rate in PE than boys. Girls attending vocational subjects dominated by boys had higher absentee rate in PE than boys, while there was no gender difference within the other three categories. The findings may help teachers in high school identify the study programmes in which absence is a major problem, especially among students in girls dominated vocational subjects, and girls in vocational subjects dominated by boys.

**Key words:** Absenteeism, high school, study programme, gender.

### INTRODUCTION

Of all subjects, physical education (PE) is the one with the highest no-mark rate in high school in Norway (Rånes, 2011). There has been little research on absenteeism in PE, and understanding absenteeism in PE is limited (Jonkås, 2010).

To prevent high absentee rates in PE, it is important to obtain more knowledge about factors that predict absenteeism, and more research is needed to understand how absentee rates vary among different groups. This study investigated how absentee rates vary among gender and different study programmes in high school. Although more recent research has shown that

Norwegian women do exercise as much as men (Fasting and Sand, 2009), studies have also indicated that Norwegian girls seem to experience PE as more problematic and that they are less active than boys in PE (Anderssen, 1995; Hansen, 2005; Holstad, 2012; Ommundsen, 2011; Säfvenbom et al., 2014), although one study among high school students found that girls enjoyed PE as much as boys (Lagestad, 2017a).

It seems appropriate to suggest that girls may have higher absentee rates than boys in PE in high school as shown in a study by Lagestad et al. (2015). However, that study did not examine absentee rates among genders in

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connection to different study programmes and gender differences. Research has shown that students focusing on general studies generally have higher marks than students in vocational subjects (Støren et al., 2007), and that they respond more positively to physical activity (Rørvik, 2009).

However, we do not know how absentee rates vary among the two study programmes. Statistical data have revealed that a large gender difference exists between study programmes in high school, with some programmes consisting of more than 90% girls and others consisting of more than 90% boys (Markussen, 2003; Støren et al., 2007). As we will discuss later in the text, collective factors such as different acknowledgement of physical capital may vary among girls and boys. Identifying groups with high absentee rates makes it possible to implement actions towards the student groups that need it most. Schools represent the ideal arena for educating the youth to adopt and maintain a physically active lifestyle because attendance is mandatory, unlike sports settings.

The previous discussion points to the importance of not only exploring gender and study programme in relation to absenteeism, but also investigating collective factors associated with being in the programmes with mostly boys or mostly girls. The Department of Education in Nordland County, Norway (Utdanningsavdelingen, Nordland fylkeskommune) has a data register (TP system) where information about high school students is saved. This database made it possible to examine the student absentee rates for all students at the 17 high schools in Nordland County.

The aim of the study was to examine how absentee rates varied among female and male high school students, as well as how those rates varied between genders in different programmes.

## METHODOLOGY

### Procedures

The method of research was quantitative analyses, comparing differences in absentee rates (dependent variable) between several groups (independent variables: gender, study programme) in order to examine the effects of gender and study programme upon absentee rates in PE. In Norway, students can choose between two major programmes; *specialization in general studies* and *vocational subjects*. Vocational subjects with more than 80% female students were classified as vocational subjects dominated by girls, whereas vocational subjects with more than 80% male students were classified as vocational subjects dominated by boys (O'Donoghue, 2012). Hence, we classified our participants into four categories: Specialization in general studies, vocational subjects, vocational subjects dominated by girls, and vocational subjects dominated by boys.

### Participants

The entire database from the study programmes with mandatory PE

in the academic year 2010 to 2011 in Nordland County was 6928 students (age range 16 to 19 years old). The population of students was 9200, but not every programme offered PE. Data from all students in one of the 19 counties in Norway were available, and a large sample of students was preferable due to several group comparisons (eight groups). Approval to use the data was given by both the Department of Education in Nordland County and the Data Protection Official for Research (NSD). Specialization in general studies included 1325 boys and 1763 girls. 107 out of 3476 boys belonged to a vocational subject that was characterized as dominated by girls, while 180 out of 3452 girls attended a vocational subject characterized as dominated by boys (Table 1). The programmes dominated by boys included electricity and electronics (92% boys, SD 5), technical and industrial production (85% boys, SD 14), and building and construction (95% boys, SD 5). The programmes dominated by girls included health-care, childhood and youth development (89% girls, SD 6); design, arts and crafts (94% girls, SD 4); and design (88% girls, SD 6). Due to missing data on some of the variables, 80, 80 and 85 students were excluded in the analyses as seen in Figures 1, 2 and 3, respectively.

### Data analysis

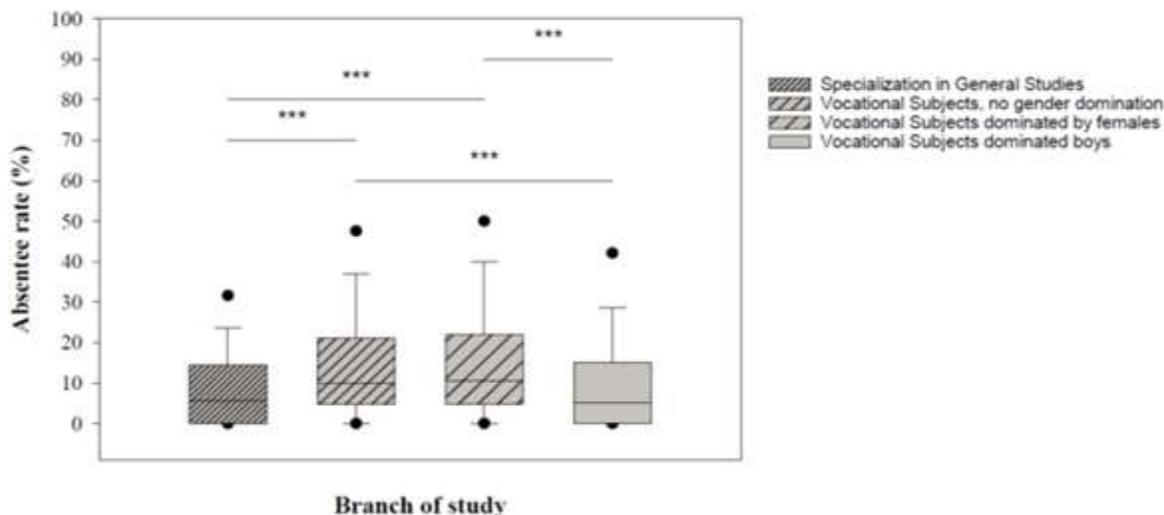
The distribution of absentee rates was marked leptokurtic and positively skewed, with a long tail of high values and, thus, the Kolmogorov-Smirnov test showed that the assumption of normality was not met ( $p < 0.001$ ). In addition, several unusual observations with a combination of discrepancy and high leverage was found in the data. Based on the calculation of Cook's Distance and by examining relative discrepancies in plots of Cook's Distance versus cases, the discrepancy and high leverage influenced both the slope and the intercept strongly. Hence, the assumptions for general linear modelling were not met, and a non-parametric approach was chosen as opposed to a more preferred linear regression approach (O'Donoghue, 2012). Thus, the Kruskal-Wallis test checked for differences in absentee rates between the four categories of study. If this analysis of variance on ranks was significant, Dunn's test was used in pair-wise comparisons. The Mann-Whitney  $U$  test was performed to check for overall differences in absentee rate between genders and for differences between genders within the four categories of study. Absentee rates are illustrated in box and whiskers plots, showing the 5 and 95th percentiles. In addition, absentee rates are given as mean (SD) within the results section. The level for significance was set at  $p < 0.05$ . Statistical analysis and illustrations was performed with Sigma Plot for Windows version 13.0 (Systat Software, Inc., San Jose, CA, USA).

## RESULTS

The mean overall absentee rate in PE across gender and categories of study were 11.6% (SD = 13.8%). While no gender differences exist in specialization in general studies. There are large differences in the proportion of girls and boys attending different vocational subjects, and therefore this study programme was divided into vocational subjects dominated by girls and boys, respectively. Absentee rates in PE differed between the four categories of study ( $H_3 = 193$ ,  $p < 0.001$ ), and the pair-wise comparisons given in Figure 1 showed that specialization in general studies had significant lower

**Table 1.** Students with mandatory physical education in Nordland County in the academic year 2010 to 2011 divided into four study categories (N = 6928).

| Study programme                                     | Boys |            | Girls |            | Total |            |
|---|------|------------|-------|------------|-------|------------|
|   | N    | Percentage | N     | Percentage | N     | Percentage |
| Specialization in general studies                   | 1325 | 19.1       | 1763  | 25.4       | 3088  | 44.6       |
| Vocational subjects <sup>a</sup>                    | 412  | 5.9        | 509   | 7.3        | 921   | 13.3       |
| Vocational subjects dominated by girls <sup>b</sup> | 107  | 1.5        | 1000  | 14.4       | 1107  | 16.0       |
| Vocational subjects dominated by boys <sup>c</sup>  | 1632 | 23.6       | 180   | 2.6        | 1812  | 26.1       |
| Total   | 3476 | 50.2       | 3452  | 49.8       | 6928  | 100        |



**Figure 1.** Box and whiskers plot for study programme and absentee rate with the 5 and 95th percentiles (N = 6850).  
 \*\*\* = Pairwise comparisons significantly different from each other at p < 0.001.

absentee rate as compared to vocational subjects ( $Z = -8.4, p < 0.001$ ) and vocational subjects dominated by girls ( $Z = -11.4, p < 0.001$ ). While there was no difference between specialization in general studies and vocational subjects dominated by boys ( $Z = -1.1, p = 0.28$ ).

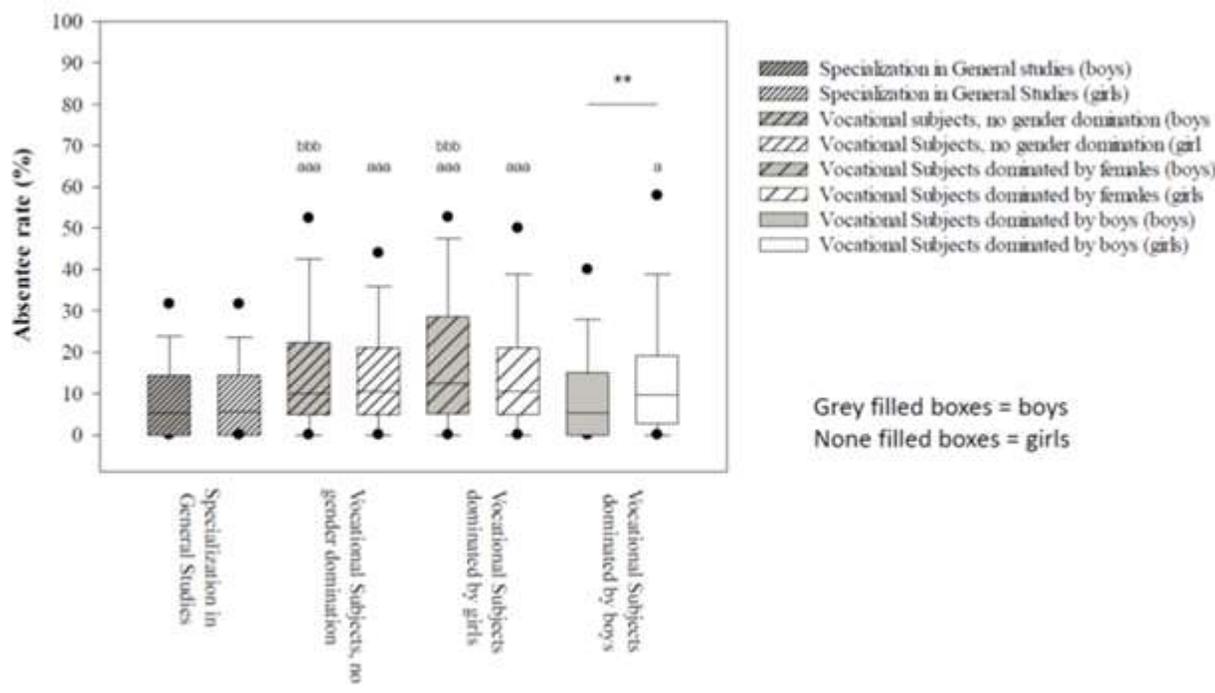
Moreover, vocational subjects dominated by girls had significant higher absentee rates as compared to vocational subjects dominated by boys ( $Z = -10.5, p < 0.001$ ), and vocational subjects dominated by boys had significant lower absentee rate compared to vocational subjects ( $Z = -8.0, p < 0.001$ ). Furthermore, there was no significant difference in absentee rate between vocational subjects and vocational subjects dominated by girls ( $Z = -1.8, p = 0.08$ ). Mean (SD) absentee rate for specialization in general studies, vocational subjects, vocational subjects dominated by females and vocational subjects dominated by boys, were 9.6 (10.9%), 14.9 (16.6%), 16.0 (16.4%) and 10.7% (14.2%), respectively.

The girls (12.3%, SD = 13.8%) had significantly higher absentee rates in PE than boys (10.9%, SD = 13.7%)

across all categories of study ( $Z = -6.1, p < 0.001$ ; Figure 2). Figure 3 shows gender and PE absentee rates for the four different categories of study. There was no significant gender difference in PE absentee rates in the programme of study named specialization in general studies ( $Z = -1.3, p = 0.18$ ). Girls had higher absentee rates than boys in vocational subjects dominated by boys ( $Z = -3.0, p = 0.003$ ). There was no significant difference in absentee rates between boys and girls in vocational subjects ( $Z = -0.7, p = 0.46$ ) and in vocational subjects dominated by females ( $Z = -1.5, p = 0.13$ ).

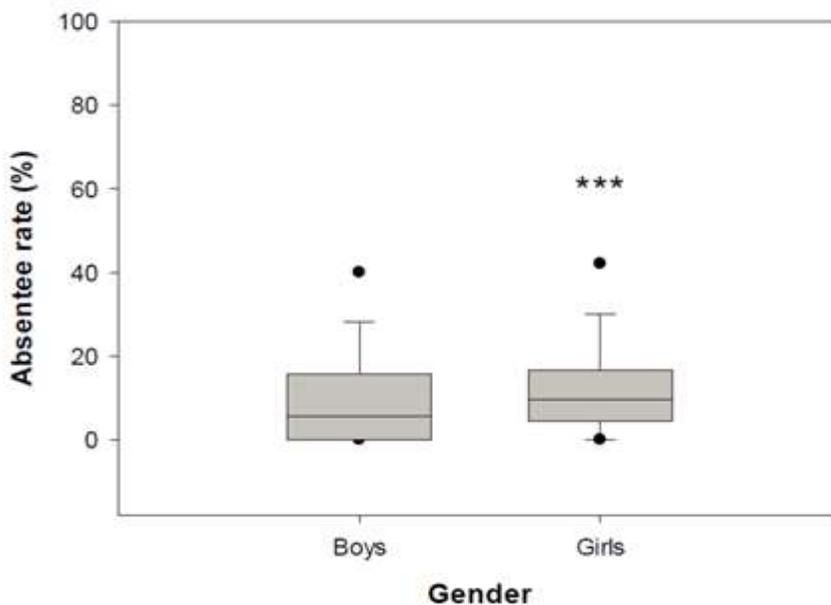
**DISCUSSION**

The results in Figure 1 show that there is a significant variance in absenteeism among the four categories of studies in high school. Students in specialization in general studies have the lowest absentee rates, students in vocational subjects have significant higher absentee



**Figure 2.** Box and whiskers plot for gender and absentee rate for different study programmes with the 5th and 95th percentiles (N = 6843).

\*\* Significantly higher absentee rate for girls as compared to boys at vocational subjects dominated by boys at  $p < 0.01$ ; a Significantly higher absentee rate within gender as compared to specialization in general studies at  $p < 0.05$ ; aaa Significantly higher absentee rate within gender as compared to specialization in general studies at  $p < 0.001$ ; bbb Significantly higher absentee rate within gender as compared to vocational subjects dominated by boys at  $p < 0.001$ .



**Figure 3.** Box and whiskers plot for gender and absentee rate with the 5th and the 95th percentiles (N = 6843).

\*\*\* = Significantly higher absentee rate for girls (n = 3405) as compared to boys (n = 3438) at  $p < 0.001$ .

rates, and students in vocational subjects dominated by girls have the highest absentee rates.

The absentee rate was in general over 8% for the nearly 7000 students in Nordland County who were enrolled in high school for the 2010 to 2011 school year. A previous study by Markussen (2003) reported an absentee rate of 5.8% in general for the students in seven other Norwegian counties, with no variance among the counties. The absentee rate in the present study is higher than that reported in the 2003 study by Markussen. These findings suggest that absentee rates that may have risen in the 10 years that have elapsed between the data collection for the study by Markussen (2003) and that for the present study. If so, this is problematic. One point to mention here is that the Norwegian Ministry of Education decided in 2016 that the absentee rate in all high school subjects should not be more than 10% (Directorate for Education and Training, 2016). This might influence future absentee rates in PE.

Considering the result, the findings indicate that it is especially important to implement strategies to reduce absence in PE among students in vocational subjects dominated by girls. Markussen et al. (2008) suggested that schools' close monitoring of students' progress is the key to students' attaining success in high school. In addition, Myrlund (2008) and Træland (2012) pointed to the importance of how PE is organised. Træland (2012) found that students with high levels of absenteeism in high school reported that school officials had not bothered to follow up and determine why they were missing classes, and that their perspectives had not been taken into account in the organisation of PE.

Research has indicated that efforts should be made to deter absenteeism in general, and that these efforts should begin earlier than in high school. Træland (2012) found that Norwegian high school students with high absentee rates also had high absentee rates in lower secondary school. Myrlund (2008) reported that Norwegian high school students encountered major challenges when they made the transition from junior secondary school to high school. Many students expressed that they did not realise what they were up against, and that they were unaware of their own interests and resources. Markussen et al. (2008) identified effort, conscientiousness and ambition as the most important predictors for students to stay in school. Teachers reported students' lack of motivation and possession of a poor skill set as major factors that contribute to high school dropout rates (Utdanningsforbundet, 2009).

The present study's findings on absenteeism in PE among high school students in Norway differ from those reported in other gender-related Norwegian school research. Previous studies have shown that girls seem to like school better and generally perform better in high school. Research has also revealed that more girls pass

their examinations and generally earn better marks than boys, and that fewer girls than boys drop out of high school in Norway (Hernes, 2010; Markussen et al., 2008; Støren et al., 2007; Træland, 2012). Hernes (2010) showed that 6 to 8% more boys than girls dropped out of high school.

Absenteeism in PE is a part of a very complex picture, and it is not possible to point to a single, common reason for absenteeism in the different groups that we have investigated. Both the median and the 75% percentile in Figure 2 show that boys belonging to vocational subjects dominated by girls have the highest absentee rates among the eight groups. There can be different reasons for this finding. One possible explanation is that more boys than girls have a negative attitude towards school, putting them in a higher risk-group for dropping out of school. The fact that more boys than girls have a marginalized relationship to school in general, may have an effect on the absenteeism rate in PE when they are put together with girls.

The results in Figure 3 show that the girls had a significantly higher absentee rate in PE than the boys. However, when analysing the gender related absentee rates among the four categories of study (Figure 2), only the vocational subjects dominated by boys showed significant differences in absentee rate (higher among girls). The findings partly support other research indicating that PE is still an arena that boys in general find more attractive than girls. Research suggests that PE seems to be modified to suit boys rather than the girls (Hansen, 2005; Holstad, 2012; Ligestad, 2017b). Although female Norwegians girls' involvement in physical activity outside school is growing (Fasting and Sand, 2009), research has indicated that Norwegian girls still seem to experience PE as more problematic and are less active than boys in PE (Anderssen, 1995; Hansen, 2005; Holstad, 2012; Ligestad, 2017b; Ommundsen, 2011; Rishovd, 2013).

A contributing factor to the major variations in absentee rates among study programmes may be differences in the socioeconomic status between students. Boudon (1974) argues that if the parents have taken vocational subjects, their children will choose to follow their parents and take vocational subjects too. This statement is supported by research among Norwegian high school students. Støren et al. (2007) found that students taking specialisation in general studies have better socioeconomic status than students taking vocational subjects. This may explain why more students from vocational studies choose not to participate in physical activity in PE classes, because they come from families where physical activity is less acknowledged. This phenomenon can be better understood using Bourdieu (2000) theory about physical capital and habitus, where differences in the acknowledgement and recognition of physical activity and attending PE between different

programmes may somehow explain absentee rates.

### **Understanding the findings in relation to habitus and physical capital**

Bourdieu (2000) emphasised that society is filled with indications that tell people from certain groups what to do and not to do in many aspects of life, including PE. Habitus indicates which actions are possible and which are not possible, and what is likely or not likely for a boy or a girl to do, such as in relation to their level of attendance in PE. An important aspect of their choice of action is the degree of acknowledgement and recognition they receive from their significant others. In this way, Habitus expresses collective expectations, rules and principles to follow in PE that are recognised as typical for a girl or a boy, and as a member of the group.

Shilling (1993) put forth the argument that cognitive disposals, which are connected to habitus, can be described as a distribution of different forms of capital. These different forms of capital are used to achieve acknowledgement and recognition. Bourdieu (1978) used the term capital to show how certain people who receive recognition and approval as an indication of being superior and worthy of respect, earn acknowledgement, recognition, prestige and reputation (Bourdieu, 1978; 2000).

Everyone has an objective position that is calculated from different distributions of capital, such as social, symbolic, cultural and physical capital. Physical capital, or embodied capital (Bourdieu, 1978), is important for people's social status but is more important among some groups of people than others (Shilling, 1993). Attendance in PE may be a significant factor in this group, where participating in PE is important in order to be worthy of respect and to obtain acknowledgement and recognition from other members of the class.

A Norwegian study (Gjessing et al., 1988) on student performances supports such a starting point for the present study. Physical capital, or embodied capital (Bourdieu, 1978) is important for people's social status, but is more important among some groups of people than others (Shilling, 1993). Taking Bourdieu (2000) theory about physical capital and habitus into account, we hypothesise that group dynamic processes have an impact on absentee rates.

It could be hypothesized that girls in programmes in which girls constitute the majority of students, seem to be less motivated for PE, and that the collective mechanism in the class may be of vital importance. Support for such hypothesis comes from a study by Gjessing et al. (1988) on student performances, where collective factors were highlighted as being more important than gender itself. Analysis of regression showed that collective factors predicted the student performance. Each student-

performance depends on which class the students were attending, and the type of class was even more important than the individual ability of students. Students with poor academic abilities performed well in classes where learning was acknowledged and recognised. Such a starting point is closely related to Bourdieu (1978) and his concept of habitus and physical capital. Using Bourdieu (1978, 2000) and his concept of habitus and embodied capital (physical capital), gender may play a role on the collective expectations about what to do or not to do for girls and boys that are members of different programmes, and the acknowledgement of physical capital may vary among these groups. One may argue that physical capital is more acknowledged among girls, than boys.

The results in this study support the findings and the suggested existence of negative collective factors in PE classes with mostly girls. A study on student performances, where collective factors were more important than individual factors, supports such an argument (Gjessing et al., 1988). The results also support Azzarito and Solomon (2005) statement about schools and PE classrooms as not existing as vacuums in which teachers fill students with knowledge, but rather as sites of complex knowledge building and socialisation. From this standpoint and the previous discussion, learning is socially constructed during socialisation.

Based on Bourdieu (2000) theory about physical capital and habitus, it can be summarised that group dynamic processes prompt students taking vocational subjects to have a higher absentee rate than students taking specialisation in general studies. This is because physical capital obtained by attendance in PE may be less important and less valuable among students in vocational subjects, and especially students in girl dominated vocational subjects, in terms of the acknowledgement and recognition they receive from the other students compared with students taking specialisation in general studies.

Støren et al. (2007) found that students taking specialisation in general studies have better socioeconomic status than students taking vocational subjects, because their mothers have a higher education level and their fathers had a higher income than parents of students taking vocational subjects. Norwegians with low socioeconomic status are less physically active than Norwegians with high socioeconomic status (Breivik and Rafoss, 2012), and students that have parents with low socioeconomic status are less physically active than students with high socioeconomic status (Kolle et al., 2012). This may explain why more students taking vocational subjects choose not to participate in physical activity in PE classes. With such a view, physical capital may be less important and plays a minor role according to their habitus. In the following discussion, we shall point out some possible reasons for this, and the implications it might have on how PE is taught.

### **How girls feel about physical education when considering the goals of the subject**

Andrews and Johansen (2005) interviewed girls in lower secondary school that did not like PE, and found that many of these girls started to dislike the subject because it became less oriented toward play, and more oriented towards achievement and competition. Therefore, some of the reasons many girls feel marginalized in PE is connected to the focus on achievement and competition. Andrews and Johansen (2005) wrote:

“There was a characteristic understanding among the girls that it became more serious in PE when they entered lower secondary school. The seriousness was evident both with marks and by activities that were more serious and less playful. They experienced a greater fear of failure. (...) The girls who took part in the study disliked the pressure towards achievement that came into PE when they entered lower secondary school” (translated from Norwegian).

However, this may not be the case for all girls; the study findings show that girls in vocational studies have a higher rate of absenteeism than girls in general studies. Perhaps this is because the girls who had a bad relationship to PE in lower secondary school more often end up in girl-dominated studies instead of general studies in high school. This could be explained by socioeconomic status; girls with low physical capital or who struggle with fitting into a culture of achievement more often have parents with low socioeconomic status (Breivik and Rafoss, 2012). This leads us to assume some of the reasons why physical capital can play such a minor role in the lives of girls with low socioeconomic status which is found in the orientation against achievement and competition in sports and in PE.

Traditionally, sports have been seen as an arena belonging to boys and men, and women and girls participating at a more competitive level have been required to participate on boy's and men's terms. Sports for girls and women have been a field with less emphasis on achievement and competition (Fasting and Sand, 2009). Therefore, girls and women that have some of the traditional masculine characteristics that are important in each sport have had an advantage. We can then argue that they have managed androgyny; having both traditional feminine and masculine qualities (Azzarito, 2010; Skyrudsmoen, 2014). These androgynous ideals have grown in the age of equal opportunity, and have therefore been held up by the middle class, not only in the field of sport, but also in working life. For example, in the area of leadership, the ones with androgynous qualities are the one with the best chance of success (Blanchard and Sargent, 1984; Sargent and Stupak, 1989; Oplatka, 2004; Solberg, 2012).

### **Formal vs. experienced curriculum**

When some teenage girls feel marginalized in PE, it may be because of their perception towards the subject. There may be many reasons for this. The group dynamic in the class and how the teacher is organizing the activities are two factors that play a role in this complex picture. Teens are at a critical age when it comes to identity, and they define themselves by the activities they are doing as well as craving recognition for doing them (Bjerrum-Nielsen, 1988: 11). This is particularly the case with activities that are seen as typically gendered activities, and many of the activities in PE fall into that category. This is even more evident when the body is changing, and boys and girls are trying to find out who they are, so it then becomes extremely important for them to participate in activities that support their gendered identity.

When we read the formal Norwegian educational curriculum (the National Curriculum for Knowledge Promotion 2006), we see that the purpose of physical education has to a high degree, have an emphasis on play and the joy of movement, and to a lower degree achievement and competition. However, the text in the formal curriculum is just one side of it. Another side of the curriculum is the one that is implemented by the teachers or experienced by the students (Goodlad, 1979). The fact may be that the interpretation of the PE we read about directly from the formal curriculum is only moderately reflected in the actual subject the students experience. In other words, there may be a conflict between the formal and practical interpretations of the curriculum (ibid.). The formal curriculum tells us that little emphasis is placed on achievement and competition, with most emphasis on play and the joy of movement. How the formal curriculum is implemented by individual teachers, and experienced by the students may be different.

In addition to Andrews and Johansen (2005), a 2011 study by Ronninghaug (2011) found that many students with poor physical skills lost their desire and motivation for PE because of the way in which PE was organised in school. The emphases on testing, competing and performing in PE seemed to demotivate students. Taking Ronninghaug (2011) study into account, absence from PE classes can be reduced by reorganizing the subject. Flintoff and Scraton (2001) found that the key criticism of PE expressed by girls was the choice of activities offered in PE programmes, with playing team sports being the most dominant choice offered. These activities were also seen as out of date, and insufficiently linked to the interests of young people today. The girls also reported that their PE teachers used sarcasm to describe their skill level, had low expectations for them or did not seem to care. A Norwegian study by Johansen (2002) on girls in the health-care, childhood and youth development study programmes supported these findings in relation to the organisation of PE based on boys' interests, not those of

girls.

The gap between the formal curriculum and the girls' experienced curriculum may in some cases be explained by a lack of consciousness among some PE teachers. Wright (1999) pointed out that the expression 'playing like a girl' used by some teachers reveals two assumptions about the construction of girlhood: girls' inferior athletic skills compared with those of boys, and the perceptions of girls as a problem in PE.

McKenzie et al. (2000) found that boys were, in general, more active in PE than girls were. Another study found that during skill drills, game play and free play in PE, boys engaged more in moderate and vigorous activity than girls (Merish and Fairclough, 2010). As Kirk (2002) noted, 'there are spaces for teachers and students to practice alternative forms of physical education that do not ascribe to the values and assumptions of stereotypically masculinized physical education'.

Later discussions around PE in Norway have been about students' efforts versus achievement, and how these elements should be considered in the assessment. Changes have been made, and now effort is also seen as a part of the assessment (Directorate for Education and Training, 2012). One of the reasons for this is to lessen the strong orientation towards achievement in PE (*ibid.*). However, effort as an assessment tool in PE is something some girls may have trouble identifying with, as it still may be considered to be something masculine and hard to separate from achievement. Some girls who don't identify with the androgynous ideal and the focus on achievement, may also not score high on effort, even if they connect with the idea of play and joy of movement.

### Implications for the teacher's role

As Hernes (2010) emphasised, there exists more than one solution to reducing absenteeism in high school. When there are a variety of explanations for the absentee rates for different students, there will also be a variety of different solutions. Students who are at risk of dropping out of school are not the same as students who have a negative relationship to PE as a subject. Regardless, it is important to arrange teaching in such a way as to create a better relationship between more students and PE (Lagestad, 2017b; Lyngstad et al., 2017). One possible way would be to narrow the gap between the formal and the experienced curriculum. We believe that if teachers manage to signal to the students that the main goals of PE are play and the developing of students' own joy of movement, then there is a greater chance of motivating students. In order for students to connect with PE, they need to feel motivated and connected to the subject (Woodson-Smith et al., 2015). This is discussed and not unfamiliar to many teachers, but may be co-determination in real life really means a

focus on the activities and not so much on purposes and values. The same activity may be approached in many different ways if the focus is on play rather than on competition. Maybe we should discuss co-operation at a more fundamental level than just activities, and find out more about how students could be more included in the goals and the direction PE should have for themselves, that is, how strong an emphasis do they want to have on play versus achievement? More openness and co-operation here may lead to more recognition of the meaning of PE among the students. It then becomes even more important that all PE teachers are aware of the many purposes of PE, so that the subject does not favor students that excel at sports and know the culture of competing before they enter a PE classroom.

### Conclusion

There are students with high absenteeism in all categories, both boys and girls, and in all study programmes in high school. Nevertheless, we see differences between programmes which are also connected to gender. We have emphasized that it is difficult to point at one, single reason for absenteeism, because there may be different reasons in different groups of students. However, we have argued that there might be some explanations connected to social background which can influence a student's relationship to PE, which might then lead to higher absenteeism among students in vocational studies, especially among girls.

The findings may help teachers in high school identify the study programmes in which absenteeism is a major problem. To prevent high absentee rates, it is important that PE teachers should find ways to motivate their students, and the findings indicate this is especially important for students in girl dominated vocational subjects, and for girls in vocational subjects dominated by boys. Taking Bourdieu (2000) theory about physical capital and habitus into account, we argue that in classes with mostly girls, physical capital obtained by attendance in PE may be less important and less valuable as a way in which to one may use to gain acknowledgement and recognition from the other girls.

The findings support other research indicating that PE in general is still a subject that more boys than girls find attractive, but the findings also indicate that there are some programmes and groups that are more problematic than others. Hopefully, this study may contribute to knowledge and awareness about which groups need to engage in physical activity to a greater extent, and what factors influence participation levels. The study indicates that it may be of vital importance to reorganise PE in classes with vocational subjects.

Based on the findings of the present study, further

research should focus on how to organise PE in such a way as to lower absentee rates among students in vocational subjects, and especially among students in girl dominated vocational subjects. Because of its objectives, PE is a subject where teaching should be, to a high degree, on the students' terms, and where the students must get the opportunity to define what physical activity should mean for them. Only in this way can we succeed in honouring the subjects' most important purpose, which is to promote the lifelong joy of movement by all students.

## CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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