

**Title: Students' Perceived Experience of Disruptive Behavior in Schools.
A Comparative Study between Schools in the US and Norway.**

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Abstract

This article reports findings from a comparative study of disruptive behaviors in schools in Norway and the United States. The study investigated students' perceived experience of the phenomenon during class. In total, 1,153 students participated in the study (544 in Norway and 609 in the US). The majority of students in both countries claimed to have been disturbed during the last week and also said that this occurred one or more times every day. Discrepancies in the results were found in that American students report a higher prevalence of disruptive behavior, while Norwegian students seem to find disruptive behavior more disturbing than their American counterparts.

Introduction

Social interactions between students in classrooms can take several forms. Teachers can establish procedures, such as cooperative activities, as means of improving the learning of the material at hand. Social interactions can also be designed to teach children how to better get

along with each other. However, there is another aspect of social interaction in classrooms that can impede teaching and learning (Nasch, Schlösser & Scarr, 2016; Wendelborg, 2012, 2014, 2015). Students frequently engage in behaviors that are not connected to the material being taught. Behaviors that might serve to distract teachers from teaching and students from learning can vary from talking in class to violence and bullying. Common to all kinds of disruptive behaviors is that they impair teaching and adequate development of students' social skills (Duesund, 2014; Ødegård, 2014).

Whereas researchers have attempted to define disruptive behaviors in classrooms and considered the effects on teachers, little work has focused on students' perspectives on disruptive behaviors in their own classroom experiences. In this article, we report the results of a quantitative measure of students' perceptions and reactions to disruptive behaviors administered to a large number of students in the United States and Norway. In many ways, the two represent different social-political systems and have somewhat different educational approaches. It is useful, therefore, to determine if and how disruptive behaviors are manifested in the two countries.

Disruptive behavior is relevant for both the well-being and academic achievement of students in schools. It continues to be a universal challenge for both students and teachers (Hallam & Rogers, 2008; Harrison, Vannest, Davis, & Reynolds, 2012; Nash, Schlösser, & Scarr, 2016; Wendelborg, 2012, 2014, 2015). The study presented in this article is part of the project "A Comparative Study of Disruptive Behavior between Schools in Norway and the United States" and is a collaboration between Norwegian and American researchers. The study addressed the following research questions:

a. What is the frequency of disruptive behavior students state that they experience in Norway and the United States?

b. Which kinds of disruptive behaviors do students say occur most often in Norway and the United States and how often do they occur?

c. What do American and Norwegian students say about their tolerance of disruptive behavior?

The findings presented are based on quantitative assessments of students' views of disruptive behaviors in response to a questionnaire. The development of the questionnaire used in the research was guided by a series of in-depth observations conducted in schools in both the US and Norway. Part of the goal of the observations was to identify the most frequent kinds of behaviors that occur in classrooms that do disrupt processes of teaching and learning. The most salient categories of disruptive behaviors identified in the two countries were the following: (1) talking out of turn, not subject-related; (2) talking out of turn, subject-related; (3) refusing to carry out instructions from teacher; (4) interfering with equipment of others, and (5) wandering around in the classroom. Using these categories, we developed and pilot-tested the questionnaire in each country. As discussed below, the questionnaire was designed to assess how students think about and react to those kinds of behaviors on the part of students.

Previous research

Current educational policies in Norway and the US are mainly focused on scholastic performance (Ball, 2003). This includes the development of standardized tests and their implementation of these to measure student achievement. Students' academic results are regarded as the most important outcome of the work of both students and teachers. In practice, the picture is more complex. Students are not only in schools to learn the curriculum and perform academically. They can develop socially by gaining skills within proactive relationships and interacting with others, with both aspects influencing their academic

achievement. Disruptive behavior plays an important role in these academic and social relational processes and can cause them to diminish in quality. Social skills also have an impact on students' academic achievements (Rimm-Kaufman et al., 2014). Disruptive behavior is one of the primary stressors for teachers and is the main trigger for them to leave the teaching profession in the first four years after post-qualification (Clunies-Ross, Little, & Kienhuis, 2008; Greene, 2014).

Researchers have applied different terminologies to describe disruptive behavior. Examples are “problem behavior”, “behavior problems”, “emotional and behavioral disorders”, “psychosocial difficulties” and “discipline problems” (Levin & Nolan, 2010; Reed & Kirkpatrick, 1998). Reed and Kirkpatrick (1998) drew up a continuum from minor to major disruptive behavior, with minor being “wiggling in seat” and “disruptive talking” and major being “physical assault.” Using a similar continuum, Sørli and Nordahl (1998) and Zions, Zions, and Simpson (2002) divide disruptive behavior into four categories that may occur in the classroom. The categories are: (1) behavior that impairs learning and teaching, a behavior that is displayed by nearly all students at some point during their schooling (e.g. talking out loud in class); (2) social isolation (withdrawal from social situations, excessive shyness); (3) extrovert behavior (aggression, talking back to the teacher, fighting with other students); and (4) behavior that breaches rules and norms, which is the least frequent kind of disruptive behavior in schools (e.g. bullying, violence, crime and intoxication). In addition to categorizing different kinds of disruptive behaviors and “placing” students in each category, there is a tendency to attribute different kinds of disruptive behavior as a cause of a medical diagnosis that not only require intervention in school, but also therapeutic treatment outside of the school context (Nielsen & Jørgensen, 2010).

About 33% of Norwegian adolescent students say that they have been disturbed by disruptive behavior in classrooms (Thronsen & Turmo, 2010; Wendelborg, 2012). Students

who display disruptive behavior disturb other students and the teacher in their work, as well as themselves. This impairs the learning of social skills and threatens the classroom climate (Duesund, 2014). Sørliie and Ogden (2014) conducted a study of what they refer to as “problem behavior” in a 10-year perspective. In the study, they examined these kinds of behaviors from the perspective of Norwegian teachers. They found that teachers perceived that problem behavior had decreased in the years between 1998 and 2008. The results of the study indicate that minor disruptive behavior has decreased in 1998–2008. In 1998, 60.1% of teachers experienced students talking out of turn, as opposed to 40.5% in 2008. Students hindering each other had also decreased, with 33% in 1998 and 21.6% in 2008. An American study conducted by Harrison et al. (2012) examined the different kinds of student behaviors teachers are confronted with inside classrooms. The teachers participating in the study answered the Behavior Assessment Scale for Children (BASC-2) and Teacher Rating Scale for Children and Adolescents (TRS-C and TRS-A). Teachers in the study described students as “generally distracted” “often” and “almost always” in 29.89% of the cases and that they talked without permission “often” and “almost always” in 18.15% of the cases.

Definitions of disruptive behavior

In our study, we focused on students’ perception of disruptive behavior in a comparative context. Few other studies emphasize these perspectives. One example is the Programme for International Student Assessment (PISA), which is a comparative study including disruptive behavior from a student perspective (Thronsen & Turmo, 2010). PISA contains subject-related questions about disruptive behavior, given in the form of statements. The statements are about whether or not it is quiet enough for students to work adequately during class. “It is noise and unrest” (Norwegian: “det er bråk og uro”) is an example of one of these statements (Kjærnsli & Jensen, 2013). The statement can seem unclear as it includes both “noise” and “unrest.” These terms differ substantially in meanings. “Noise” can be anything from students

talking in class, to birds chirping outside the classroom window. Said differently, “noise” can be any kind of sound from both inside and outside the classroom that can distract students from their work. “Unrest” can be anything from the students not being able to sit still due to worries they may have about their future, classmates, family issues and being excited about something they are looking forward to. “Unrest” is not always observable as it can take form of an emotion experienced by the individual student. This is more in-line with our understanding of disruptive behavior, illustrating an openness to both the observable and unobservable factors that precede human behavior. We have mentioned that different researchers use different terminology to address the issue of disruptive behavior. There does not seem to be consensus about terminology and researchers’ measures of different concepts that would be applicable to answer our research questions. The concept of disruptive behavior has a wide range of definitions, and the research documents the complexity of the concept. Our theoretical framework was developed in relation to this complexity. It includes elements both from educational, psychological, sociological, and philosophical domains. Research documents (Duesund, 1995, p. 23; Ødegård, 2014) that disruptive behavior is contagious among the students within a school class. It is not possible for the teacher alone to stop it. This implies that the assumption that a school class constitutes a shared community may not be correct. If the school class were a real community, the students displaying disruptive behavior would be ignoring the set of rules they had agreed upon. They are not embarrassed when surpassing the boundaries of accepted behavior (Duesund, 1995). There is broad consensus that disruptive behaviors contribute to weakening the learning and teaching climate in schools in western societies.

Most of the previous research is on teachers’ perspective and not that of students. We examined both students’ perceptions of disruptive behavior and their perception of how

teachers react and should react to the phenomenon. Based on earlier research and our findings in the qualitative study we have given the following definition to disruptive behavior:

“Any behavior that is perceived as sufficiently off-task in the classroom so as to distract the teachers and/or class-peers from learning activities”.

We believe that the comparative student perspective in our study can strengthen understandings of the complexity of disruptive behavior. By including students from different countries, they become our basic empirical source for our search in studying the demanding issue of disruptive behavior. As such, we adhere to the following citation:

“Comparison is one of the most powerful tools used in intellectual inquiry, since an observation made repeatedly is given more credence than is a single observation” (Peterson, 2005, p. 257)

The major aims of the research are to ascertain how students think about and react to behaviors of other students that they might regard as disruptive to the on-going academic activities of the classroom.

Methods

In the following, we present the participants, design and analytical procedure used in the study. Before starting the research, both the Norwegian Centre for Research Data and the Institutional Review Board at the American university to which we are affiliated evaluated ethical aspects of our research and gave their approval. The study was carried out in 2015–2016.

Participants

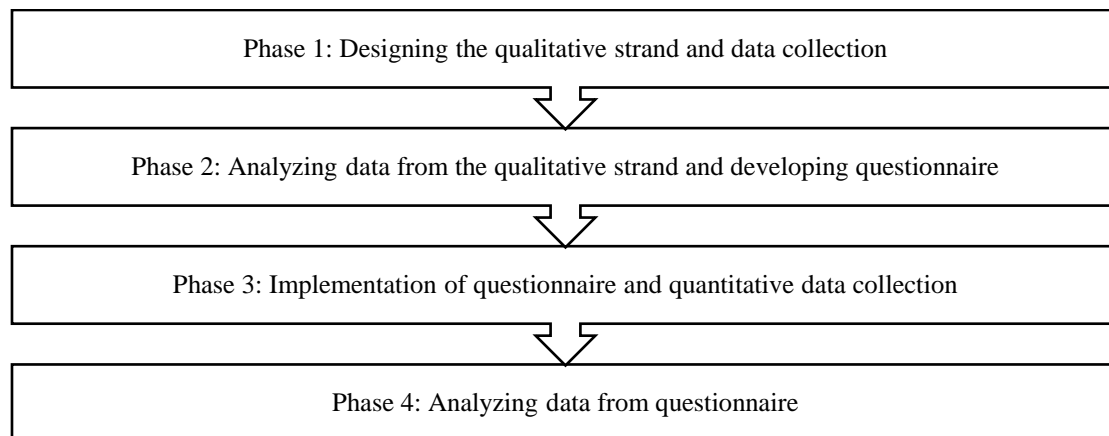
The students in our sample attend public schools and are mainstreamed in regular classes. The total sample in the study consists of 1,153 students, with 609 (52.8%) being American and

544 (47.2%) Norwegian. The participants were in the ages 15–17. Of the 609 American students, 318 (27.6%) were female and 291 (25.2%) male. The 544 Norwegian students consisted of 252 (21.9%) females and 292 (25.3%) males. The sample was obtained by (a) reviewing a list of all schools in the two cities, (b) contacting principals at each school, (c) contacting teachers, and (d) entering the classrooms of teachers who had agreed to make their classes available for the study.

Research design

The study utilizes an exploratory design, with one qualitative and one quantitative strand (Creswell, Plano-Clark, Gutmann, & Hanson, 2003; Creswell & Plano-Clark, 2011; Johnson & Christensen, 2014). The following figure illustrates the design of our study:

Figure 1:
Research design



As seen in figure 1, the study consisted of four phases. Phase 1 and 2 were qualitative and included observational studies of students identified as behaving disruptively. These studies were conducted in Norwegian and American schools by students at Master’s level from the University of Oslo. Data from these studies were utilized to create categories in the development of the questionnaire implemented in the quantitative strand. As this article only discusses the quantitative data, we will not place any further emphasis on the qualitative

strand of the study other than describing how those data were used in the development of the questionnaire.

Developing questionnaire

Our questionnaire consisted of 23 items, with 16 measured on a nominal level and 7 at an ordinal level. The items required the students to answer questions regarding issues illustrated in table 1, with “degree of disturbance” and “displayed disruptive behavior” the focus of this article.

Table 1:
Themes and items in the questionnaire

Themes	Items
Degree of disturbance	Which kinds of disruptive behavior students find most disturbing; how disturbing they find this kind of behavior.
Displayed disruptive behavior	If other students had displayed disruptive behavior in the week before being surveyed. If students had displayed disruptive behavior themselves during the last week. Kind of disruptive behavior that occurred most often. How often did disruptive behavior occur.
Reactions to disruptive behavior	How students and teachers react towards disruptive behavior. How these reactions affect students who are disruptive in class.

NOTE: This provides an outline of our entire questionnaire. In this article, we focus on “displayed disruptive behavior” and “degree of disturbance.”

First, students were asked which of a set of behaviors they find the most disruptive, and associated questions pertaining to the extent to which the behaviors are disruptive to their own work (questions 5a, 5b, and 5c in Appendix). Then, in order to assess whether students perceive disruptions in their everyday classroom activities, respondents were posed a set of questions regarding perceived disruptions during the “past week” (7 and 8). The next set of questions was designed to assess their views of how students and teachers react (questions 9, 10, and 12) and should react (question 11, and 13) to the disruptive behaviors of others.

Implementing questionnaire and quantitative data collection

To validate the developed questionnaire, it was piloted three times and discussed with members of the research group (Note p: 24) after each pilot. Two of the pilots were

administered in Norway, and one in the US. The questionnaire was administered in paper-and-pencil format inside classrooms, with a researcher present at all times. We applied a two-fold theoretical rationale behind doing so. Firstly, paper-and-pencil format increases the possibility for students to be more comfortable with reporting information about their own and others behavior (Raghupathy & Hahn-Smith, 2013). Secondly, having a researcher present at all times could increase the likelihood of the procedures of data collection going forth as intended. Having control over an educational research setting can be a challenging task due to the dynamic nature of classrooms (Blanco-Iglesias & Broner, 1997). By being present, we had the possibility to have some control over issues like students' proximity to each other while also allowing us to answer any questions from the students concerning how to answer the questionnaire. The questionnaire also contained written instructions in how to answer it, as well as a definition of disruptive behavior understandable to the students. This definition was "disruptive behavior in school is when someone is acting in a way that disturbs other students and/or the teacher." In addition, a verbal script was utilized in both countries to ensure that all students received the same instructions both verbally and in text.

Analysis of data

The questionnaire and all 23 items in the questionnaire had a response rate above 95%, which indicates that there is a very low likelihood that missing data will distort the findings (Floyd & Fowler, 2013). Based on this theoretical rationale, missing data are excluded from our analysis. Our analytical approach is in line with what (Johnson & Christensen, 2014) present as the goal of descriptive statistics, which is to summarize or make sense of a dataset. We conducted homogeneity analysis and tests of two proportions to calculate statistically significant differences between Norwegian and American students. Such tests are common and well suited when analyzing differences between groups and in analysis of contingency tables.

Results

The results are presented in contingency tables and reported on the base of overall tendencies amongst all students in the sample, including the findings on gender differences.

Comparing prevalence of disruptive behavior

Table 2 shows the percentages of students stating that they had been disturbed during the week prior to the survey. As can be seen in Table 2, the majority of both American and Norwegian students answered that they had been disturbed. A Chi-square test of two proportions showed a statistically significant difference in proportions of all the Norwegian and American students ($p=.007$). There were no statistically significant differences between female students in Norway and the US, but such a difference was found between male students ($p=.02$).

Table 2:
Disruptive behavior displayed by other students

Disturbed by other students	American students (%)			Norwegian students (%)			Total
	All	Female	Male	All	Female	Male	
Yes	65.6	69.6	61.1	57.8	65.2	51.4	61.9
No	34.4	30.4	38.9	42.2	34.8	48.6	38.1
N	598	313	285	538	250	288	1136

NOTES: Statistically significant differences are found between the total numbers of students in the sample, ($\chi^2(1, N=1136)=7.20, p=.007$) as well as American and Norwegian male students ($\chi^2(1, N=573)=5.43, p=.020$).

Comparing degree of disturbance from disruptive behavior

We asked the students how much disruptive behavior disturbed their work, aiming to get indications on how damaging disruptive behavior can be to their work in classrooms. Table 3 presents the degree of disturbance from disruptive behavior from the perspective of the students who claimed to have been disturbed during the previous week. Other students might find disruptive behavior to be disturbing and have experienced it at some point, but the aim of the study was to present recent events that were “fresh” in the minds of the students. By including the statement “during the last week” in our questions, we wanted to ensure that

students thought about a specific period in time as it is highly likely that nearly all students have been disturbed by disruptive behavior at some point during their schooling.

A homogeneity analysis showed statistically significant differences in the answers of American and Norwegian students ($p=.001$). Post-hoc analysis involved pairwise comparisons using the z-test of two proportions with a Bonferroni correction. The pairwise comparisons showed statistically significant differences between American and Norwegian students (total number, as well as male and female) within the categories “highly disturbing” and “somewhat disturbing.” The overall tendencies are that Norwegian male and female students find disruptive behavior to be more disturbing than the American students. American students seem to mainly find disruptive behavior to be “somewhat” disturbing, while Norwegians mainly find it “highly disturbing.” The minority of the students in each country answered that they found disruptive behavior to provide a low degree of disturbance.

Table 3:
Degree of disturbance caused by reported disruptive behavior

Degree of disturbance	American students (%)			Norwegian students (%)			Total
	All	Female	Male	All	Female	Male	
Highly disturbing	33.2 ^a	32.6	34.1 ^b	48.6 ^a	50.0	47.0 ^b	39.7
Somewhat disturbing	51.5 ^c	51.2	52.0 ^d	34.8 ^c	35.3	34.1 ^d	44.5
A little disturbing	15.2	16.3	13.9	16.7	14.7	18.9	15.8
N	388	215	173	282	150	132	670

NOTES: Homogeneity analysis found statistically significant differences between the total number of students in the sample ($\chi^2(6, N=670)=21.67, p=.001$). Pairwise comparisons between American and Norwegian students showed the following statistically significant differences: ^a($z=-4.02, p < .001$), ^b($z=-2.28, p=.02$), ^c($z=4.29, p < .001$), and ^d($z=-.3.12, p=.001$).

Comparing most frequent kinds of disruptive behavior

Table 4 presents the percentages of respondents’ identification of kinds of disruptive behaviors. Panel A shows the responses of the students who claimed to have been disturbed during the week previous to being surveyed. Panel B shows percentages of the kinds of disruptive behavior that occurred most often, calculated from the entire sample. Panel B includes the category “no disruptive behavior reported.” This category consists of the students who said that they had not been disturbed. As can be seen in Table 4, the dominant kind of

disruptive behavior displayed in both countries was “talking out of turn, not subject-related.” A homogeneity analysis found overall statistically significant differences in Panel B ($p < .001$), but not in Panel A ($p=.083$). Even though the homogeneity analysis indicated no statistically significant differences in Panel A, a higher proportion (about 10%) of American students answered within the category “talking out of turn, not subject-related” compared to the Norwegians. This difference is important even though the test did not conclude that it was statistically significant. Therefore, we ran three individual tests using dummy variables, comparing the total number of American and Norwegian students, as well as American and Norwegian males and females. By doing so, we found statistically significant differences between the total number of American and Norwegian students ($p=.004$), American and Norwegian male students ($p=.040$), but not American and Norwegian female students ($p=.126$) within the category “talking out of turn, not subject related”. A chi-square test of two proportions, only testing the category “talking out of turn, not subject-related” and combining all other behavior categories in a 2x2 contingency table showed statistically significant differences also among female students ($p=.026$). The frequencies for the other categories are evenly distributed, except for “wandering in classroom”, which is significantly higher among the Norwegian students. This difference does not have great substantial importance given that very few students answered within this category.

For all students in the sample (Panel B), pairwise comparisons using the z-test with a Bonferroni correction showed statistically significant differences within the category “talking out of turn, not subject-related” between all American and Norwegian students as well as between male and female students from the two nations.

Table 4:
Most frequent kinds of disruptive behavior

<i>Panel A: Percentage of answers amongst students who had been disturbed</i>							
Behavior	American students (%)			Norwegian students (%)			Total
	All	Female	Male	All	Female	Male	
Wandering in classroom	3.6 ^d	3.7	3.5	8.0 ^d	8.2	7.7	5.5
Interfering with equipment of others	4.9	5.1	4.6	6.6	4.4	9.2	5.6
Talking out of turn, subject-related	6.9	7.4	6.4	11.0	10.7	11.3	8.7
Refusing to carry out instructions from teacher	15.6	14.3	17.3	18.3	18.2	18.3	16.8
Talking out of turn, not subject-related	69.0 ^a	69.6 ^b	68.2 ^c	56.1 ^a	58.5 ^b	53.5 ^c	63.4
N	390	217	173	301	159	142	691

<i>Panel B: Percentage of answers amongst all students in sample</i>							
Behavior	American students (%)			Norwegian students (%)			Total
	All	Female	Male	All	Female	Male	
No disruptive behavior reported	36.0	31.8	40.5	44.7	36.9	51.4	40.1
Wandering in classroom	2.3	2.5	2.1	4.4	5.2	3.8	3.3
Interfering with equipment of others	3.1	3.5	2.7	3.7	2.8	4.5	3.4
Talking out of turn, subject-related	4.4	5.0	3.8	6.1	6.7	5.5	5.2
Refusing to carry out instructions from teacher	10.0	9.7	10.3	10.1	11.5	8.9	10.1
Talking out of turn, not subject-related	44.2 ^a	47.5 ^b	40.5 ^c	31.1 ^a	36.9 ^b	26.0 ^c	38.0
N	609	318	291	544	252	292	1153

NOTES: Panel A: Homogeneity analysis did not find any statistically significant differences between the total number of students in the sample ($\chi^2(12, N=691)=19.26, p=.083$). Pairwise comparisons showed the following statistically significant differences between American and Norwegian students: ^a($z=3.49, p < .001$), ^b($z=2.23, p=.026$), ^c($z=2.67, p=.007$), and ^d($z=-2.512, p=.012$) Panel B: Homogeneity analysis found statistically significant differences ($\chi^2(15, N=1153)=44.26, p .001$). Pairwise comparisons showed the following statistically significant differences between American and Norwegian students: ^a($z=4.57, p < .001$), ^b($z=2.54, p=.011$), and ^c($z= 3.72, p < .001$).

Comparison of how often disruptive behavior occurred

Table 5 presents the frequency of disruptive behavior occurring from the perspectives of the students who had been disturbed during the last week, as well as the entire sample. A homogeneity analysis showed statistically significant differences in both Panel A ($p < .001$) and B ($p < .001$). In Panel A, pairwise comparisons showed statistically significant differences within the categories “every lesson” (between total number and number of female

American and Norwegian students) and “1–2 times during the last week” (between all students as well as male and female students). Norwegian students stated that disruptive behavior occurs more frequently than the American students. Nearly twice as many American than Norwegian students answered that it occurred “1–2 times during the last week.” The Norwegian students mainly answered that disruptive behavior occurred more often than this. That disruptive behavior occurred “3–4 times each day” or “1–2 times each day” has the highest percentage of answers within both countries and are similar between the two. In Panel B, pairwise comparisons showed statistically significant differences between American and Norwegian students within the categories “1–2 times during the last week” (all students and male students) and the category “no disruptive behavior reported” (all students and male students). Common in both countries is that a very large number of students (both among those who claimed to have been disturbed during the last week and the entire sample) reported to have experienced disturbances every day during the last week of being surveyed.

Table 5:
How often disruptive behavior occurred

<i>Panel A: Percentage of answers amongst students who had been disturbed</i>							
How often disruptive behavior occurred	American students (%)			Norwegian students (%)			Total
	All	Female	Male	All	Female	Male	
1–2 times during the last week	28.3 ^a	21.9 ^b	36.3 ^c	14.1 ^a	9.9 ^b	18.8 ^c	22.0
3–4 times during the last week	11.3	12.9	9.4	12.5	11.8	13.2	11.8
1–2 times each day	29.4	31.9	26.3	34.4	38.5	29.9	31.6
3–4 times each day	22.6	24.3	20.5	24.9	23.6	26.4	23.6
Every lesson	8.4 ^d	9.0 ^e	7.6	14.1 ^d	16.1 ^e	11.8	10.9
N	381	210	171	305	161	144	686

<i>Panel B: Percentage of answers amongst all students in sample</i>							
How often disruptive behavior occurred	American students (%)			Norwegian students (%)			Total
	All	Female	Male	All	Female	Male	
No disruptive behavior reported	37.4 ^a	34.0	41.2 ^b	43.9 ^a	36.1	50.7 ^b	40.5
1–2 times during the last week	17.7 ^c	14.5 ^d	21.3 ^e	7.9 ^c	6.3 ^d	9.2 ^e	13.1
3–4 times during the last week	7.1	8.5	5.5	7.0	7.5	6.5	7.0
1–2 times each day	18.4	21.1	15.5	19.3	24.6	14.7	18.8
3–4 times each day	14.1	16.0	12.0	14.0	15.1	13.0	14.1
Every lesson	5.3	6.0	4.5	7.9	10.3	5.8	6.5
N	609	318	291	544	252	292	1153

NOTES: Panel A: Homogeneity analysis found statistically significant differences between the total number of students in the sample ($\chi^2(12, N=686)=40.26, p < .001$). Pairwise comparisons found the following statistically significant differences between American and Norwegian students: ^a($z=4.48, p < .001$), ^b($z=3.07, p=.002$), ^c($z=3.43, p < .001$), ^d($z=-2.38, p=.017$), and ^e($z=-2.08, p=.038$). Panel B: Homogeneity analysis found statistically significant differences between the total number of students in the sample ($\chi^2(15, N=1153)=61.38, p < .001$). Pairwise comparisons found the following statistically significant differences between American and

Norwegian students: ^a($z=-2.45$, $p=.025$), ^b($z=-2.30$, $p=.021$), ^c($z=4.92$, $p < .001$), ^d($z=3.12$, $p=.002$), and ^e($z=4.06$, $p < .001$).

Discussion

Our finding that students perceive and are affected by disruptive behaviors in classrooms supports concerns that the problem of disruptive behavior is not sufficiently addressed in schools today. This is important because the behavior negatively affects the wellbeing of all students, and particularly those students who are the most vulnerable with regard to learning difficulties or pre-existing psychosocial problems. The following provides a discussion of our results and their implications for educational practice.

Reported frequency of disruptive behavior

Occurrence of disruptive behavior was measured by calculating the frequency of yes or no answers from American and Norwegian students. Nearly two-third of students in the US reported to have been disturbed during the previous week of being surveyed, compared to about one-half of the Norwegian students. It may be the case that the range of disruptive behavior could be greater in American schools than the Norwegian ones. One might also raise the question as to whether this finding indicates that the extent of disruptive behavior is actually equal in the two countries, but that students in the respective countries perceive disruptive behavior differently. If this is a plausible interpretation, it could be linked to cultural differences between the two countries. Results from PISA 2012 (Kjærnsli & Jensen, 2013) supports this interpretation. These studies have reported that Scandinavian countries have documented the highest prevalence of disruptive behavior, with Norway providing the highest results of all the countries. When PISA has reported these results, it seems that Norwegian students could have a higher tolerance when it comes to perceived disruptive behavior (Szulewicz, 2016). Worth noting here is that even though the reported frequency of disruptive behavior is (statistically) significantly higher in the US than Norway, this does not

mean that we should not be concerned about disruptive behavior in Norwegian schools as the difference is no more than 7.8% and the reported frequency is also high in Norway.

Differences between female and male students could be attributed to differences in gender patterns in the two countries. It is more common for females to address importance of tidiness and “good” behavior than male students. Girls may therefore be more sensitive to disruptive behavior than boys. This also implies that boys may have a higher degree of acceptance than girls. Another feature of the gender differences could be that it refers to the social background of students in the sample. Studies document those students from lower social classes or from socially challenged families often display the most serious kinds of disruptive behavior (Bryan, Day-Vines, Griffin, & Moore-Thomas, 2012). Our study did not include the most serious kinds of disruptive behavior, but those that are most common. Nevertheless, we should keep in mind that, in schools, the norms from the social middle class are the most dominant. These norms influence the rules of appropriate behavior in schools. This could mean that students coming from the social middle class are more compliant with the rules at school (Lareau, 2011). These results indicate that the majority of students in both countries have their learning impaired on (at least) a weekly basis. The reported frequencies are higher than the ones reported by Wendelborg (2012) and Throndsen and Turmo (2010). A note here is that Throndsen and Turmo (2010) report disruptive behavior within specific subjects and their results are consistent in mathematics and in Norwegian schools. This may contribute to the lower extent of reported disruptive behavior as some students may prefer some subjects to others and, therefore, express less or more disruptive behavior in different subjects.

The consequences of disruptive behavior are serious as it not only impairs academic performance, but can also increase frustration and reduce motivation for school-related work among both students and teachers. Disruptive behavior is also one of the main reasons

teachers leave their jobs (Duesund, 2014; Greene, 2014; Ødegård, 2014). According to Levin and Nolan (2010), teachers can assist students in choosing what they refer to as “productive” behaviors instead of behaving disruptively. “Productive” behavior in this case would be to stay on-task instead of behaving disruptively during class. According to our results, many students are off-task during class. One might ask if students in our sample are provided with sufficient alternatives for “productive” behaviors during class. However, the issue of disruptive behavior is more complex than just introducing a set of alternative behaviors. Other factors influencing the occurrence of disruptive behavior are how the curriculum is adapted to each student (Kirp, 2013), pressures for achievement both in school and society in general (Bauman & Mazzeo, 2012), and students’ and teachers’ skills in social competence to create a trusting environment characterized by empathy and respect within classrooms (Skårderud & Duesund, 2014).

Studies in the US and in Norway (Bakken, 2016; Lareau, 2011) document that students coming from the working class and the lower middle class feel they do not fit in at their schools. This applies both academically and socially. These factors may play a central role in the prevalence of disruptive behavior in schools.

Tolerance of disruptive behavior

Very few of the students in our sample said that disruptive behavior provides a low degree of disturbance when they were working on academic tasks. Resilience towards issues like disruptive behavior is associated with factors like socio-economic status and home environment (Catterall, 1998). The American students in our sample seemed to be more resilient about disruptive behavior than the Norwegian students, with a significantly higher proportion answering that they find disruptive behavior to be only “somewhat” disturbing. At the same time, the American students in our sample are more demographically diverse than the Norwegians. We believe that the American students in our sample might be subject to

more risk factors that can trigger disruptive behavior. Even though the American students seem to be more resistant to disruptive behavior, there is significantly more disruptive behavior among the American students. This may have contributed to disruptive behavior becoming so much part of the school day that the American students experience it as the norm rather than an anomaly. That is, these students might be so used to being disturbed that it no longer affects them to any great extent.

When American students report a higher percentage of disruptive behavior it does not mean that this kind of behavior occurs more often, but that their tolerance towards it could be lower than the Norwegian students. Classrooms are among the few places (and maybe the only) in our society where students experience demands to be quiet and are confronted with a set of rules of how to behave. One might say that young people in our modern society have developed an extensive tolerance for interruption, disruptiveness and a high degree of noise. While not accepted in schools, students may receive acceptance for their disruptiveness, and energy outside schools. The displayed disruptive behavior inside schools could also be interpreted as a resignation to the demands of academic achievement that are expected in schools (Bauman, 2008).

Most frequent kinds of disruptive behavior

The results indicate that “talking out of turn, not subject-related” is the dominant kind of disruptive behavior displayed by students in both the Norwegian and American samples. This is consistent with what Norwegian teachers perceived as illustrated in the study by (Sørli & Ogden, 2014). In 1998, 60.1% of teachers experienced students talking out of turn. In 2008, this number had decreased to 40.5%. Among those who had been disturbed during the previous week in our study, 69% of American students reported this kind of behavior, compared to 56.1% of the Norwegian students. Of all the students in the sample, 44.2% of the American students reported that they had been disturbed by this behavior, compared to 31.1%

of the Norwegian students. Of all the American students in the sample, the results are also similar to what the Norwegian teachers reported in 2008. The decrease in this kind of behavior is positive, but the numbers are still high, with a large number of students being disturbed by other students talking out of turn on (at least) a weekly basis.

That “talking out of turn, not subject-related” is the most frequent kind of behavior is consistent with the research of Glock (2016), who found that teachers perceive talking out of turn as one of the most frequently occurring disruptive behaviors. Based on this research, students and teachers seem to be in agreement on the issue of this kind of behavior and its very frequent occurrence. This kind of behavior can be a symptom of deeper issues relating to a lack of recognition of students. The research of Nash et al. (2016) lends support to this postulate by suggesting that the intense focus on achievement and results in our schools may pose a threat towards teachers’ ability to stimulate each student relationally and psychologically. As Rogers (1967) points out, the most significant attainments are not just academic, but individual, involving growth on a personal level.

Knowing that social skills have an impact on the development of academic skills, disruptive behavior within the category “talking out of turn, not subject-related” could be understood as a result of the students situating themselves at the center of attention and paying attention to others. If so, the behavior also has an ethical aspect referring to a culture that has difficulties in balancing relations between the individual and the social context (community) that the individual is a part of (Nucci & Turiel, 2009).

The most common disruptive behavior of “talking out of turn, not subject-related” can be interpreted as a socio-cultural phenomenon. If we understand this behavior as a continuous attempt to make contact with the teacher or to receive his/her attention, it may also indicate that many adolescents today are lacking contact with or attention from adults both at school and during leisure time. Students socialize more in horizontal (meaning in relation to peers),

than vertical (meaning in relation to adults) relationships. This may suggest that teachers could play a key role not only in teaching to give students' academic qualifications, but also in contributing to their socialization (Skårderud & Duesund, 2014).

How often disruptive behavior occurred

There is not much research inquiring into how often students perceive disruptive behavior as occurring. We examined how often disruptive behavior occurred to get further indications into the seriousness of the issue in the sense of how much it disturbs students. The rationale behind this is that disruptive behavior occurring on a daily basis is a serious issue, but much more problematic if it occurs on a daily basis and in every lesson. Out of the students who claimed to have been disturbed during the last week, nearly 50% said that it happened "3–4 times each day" or "1–2 times each day". This equates to about 33% of the entire sample. These findings indicate that a large number of students have their learning impaired on a daily basis regardless of their presuppositions and aptitudes.

Several measures taken towards disruptive behavior have been in the form of short-term programs or interventions. Such programs have often been unsuccessful due to lack of coordination with schools and a lack of research-based practices (Greenberg et al., 2003). Our results provide indications that preventing disruptive behavior is not something that can be solved by a short-term program or intervention, but needs to be worked on continuously during the academic year and in all levels of schooling. The sample in our study has been part of the school-system for ten years or more, meaning that they have vast experience attending school. That disruptive behavior has prevailed for so long indicates that current practices are insufficient with regard to disruptive behavior. Just like learning, managing other challenges takes time and there is no quick-fix to dealing with disruptive behavior, just as there is no quick-fix to learning and fulfilling the potential of each student.

Strengths and limitations

Our study has some limitations. The findings are not generalizable to any great extent. We have only conducted the study in two cities and the samples are not big enough to generalize to the entire student-population in both countries. Secondly, we could have applied other levels of measurement to avoid translational issues in our questionnaire. For example, the application of Likert scales would have avoided the need to translate each category on each variable.

The main strength of our research is that it tells us something about disruptive behavior in a comparative perspective. Our research indicates that there are no major differences between the two countries and that disruptive behavior occurs almost equally in both. Culture and school-systems may play some part, but it seems that both Norwegian and American schools have similar challenges with regard to disruptive behavior in their classrooms. Both Norway and the US are western societies with school systems that differ in some aspects, but that are mainly similarly organized.

We believe that strengths in our study are found in the findings that are not documented in earlier research. Firstly, we utilized the student-perspective to a larger degree than many other studies on disruptive behavior. Secondly, we applied qualitative data to develop a questionnaire. In addition, we went beyond the yes/no dimension and examined specifically how often disruptive behavior occurred (every lesson, daily, weekly). The importance of these findings could be found in that disruptive behavior is more detrimental to learning if it happens every lesson as supposed to if it happens only once a couple of times every week. Other findings not documented in earlier research are how disturbing students find disruptive behavior. This provides us with indications about how resistant and tolerant students are towards disruptive behavior. It also provides further information about how

serious an issue disruptive behavior is, in the sense that it provides a specific measure of students' perception of its degree of disturbance to their work during class.

Conclusion and implications for educational practice

Our research can contribute to a further understanding of disruptive behavior and shows that additional knowledge is needed in order to manage this important issue. It is alarming that so many students claim to be disturbed nearly every day. Disruptive behavior does not start in the classroom. Practitioners in schools, especially teachers, need increased support from their educational training and in their daily practice to manage the phenomenon. The focus on disruptive behavior in teacher training is scarce, and the Education Act and curriculums in Norway and the US barely mention disruptive behavior at all. Even though disruptive behavior does not start in classrooms, it is the place where it needs to be solved. It is an educational necessity to maintain and establish an asymmetric relationship between student and teacher. This is of importance both when it comes to teaching and socialization. Such asymmetry could give both the student and teacher a form of security in their respective roles. If the teacher gives up his/her role as a person with certain authority, the security will also disappear (Dewey, 1910).

If we consider disruptive behavior as an indirect attempt to make contact, the behavior could also be a result of lacking experiences of attachment both to peers and to adults. It is well documented that lasting experiences during childhood give people a sustainable sense of security and may also contribute to a relaxed atmosphere within classrooms.

Modern societies put high demands on social skills for individuals. One is supposed to cope with complex situations in everyday life. Social skills are more necessary today than for earlier generations. Disruptive behavior could be interpreted as a lack of competence to cope with complex situations in a time characterized by a lack of enduring and safe communities.

Several studies have documented that many students feel they do not belong or fit in at their schools (Bakken, 2016; Lareau, 2011). These findings are more prevalent for students coming from lower social classes than those coming from middle classes. The social environment is divided through students' social class background. Lacking social belonging is considered among the main factors contributing to low academic achievement. Knowing this we should emphasize social inclusion when developing school curricula, school policies and work for reducing disruptive behavior in schools.

Note

¹The research group contains scholars from Norway and the US, within the disciplines of education, special needs education, sociology, psychology and philosophy.

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