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The role of school identification and self-efficacy in school satisfaction among Norwegian high-school students

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Abstract
School satisfaction is a key indicator of education quality in addition to academic achievement and student's coping efficacy, as well as an important factor to prevent school dropout. The primary aim of this study was to investigate how high-school students' school identification and self-efficacy were associated with school satisfaction. The study included controls for gender, education programme and parental education level. A self-report questionnaire was administered to high-school students at three upper secondary schools in Norway. The sample included 794 first year students. No respondents refrained from participating in the study. Most of the students in the study were satisfied with school. The current study underscores the importance of school identification. School identification was found to be more important for the students' school satisfaction than self-efficacy. Moreover, according to the results, teachers' social identity leadership appears to play an important role in students' school satisfaction. The findings imply that the teachers' social identity leadership is imperative in classroom management.

Keywords School identification · Social identity leadership · Self-efficacy · School satisfaction · Classroom management

1 Introduction

Satisfaction and well-being at school has become significant foci in school polices as well as an explicit educational aim (see White 2007; Coleman 2009; Currie et al. 2012; UNESCO 2016; OECD 2017). Kirkcaldy et al. (2004), examining data from 30 countries, found a positive relationship between subjective well-being and adolescents' academic achievement. Students who do not like school are those who are most likely to have a lower academic performance, higher school non-attendance

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and to be at greatest risk of dropping out. A large proportion of young people drop out of school because they view formal education as irrelevant (Scott 2015).

The present study was carried out among Norwegian students in general and vocational upper secondary school. High-school (Upper Secondary School) in Norway is optional, but according to The Norwegian Education Act (1998, Sect. 3-1) all adolescents between 15 and 24 years old are entitled to free upper secondary education. The general tracks are three years long, preparing for tertiary education, whereas vocational tracks are usually four years long, including two years in apprenticeship at regular work places (Bäckman et al. 2015). According to the Regulation relating to The Norwegian Education Act (2006, Sect. 3-3), students in upper secondary education who have more than ten percent undocumented absence in single subjects will not be allowed to get grades in this subject. The purpose of the regulation is to motivate the students for continuous effort and to prevent truancy. For most students the absence limit increases their rate of attendance, but for vulnerable students a rate of absence above the ten percent limit could, according to Andresen et al. (2017), cause them to drop out of school altogether.

It is important to understand the social psychology behind school satisfaction to nurture student engagement, educational identity and academic achievement, and prevent alienation, non-attendance and school dropout. Both experiential learning theory (see Dewey 1938; Kolb 1984) and social-cognitive theory (Bandura 1986, 2001) emphasise the reciprocal relationship between the learner and the social environment. Humans are cognitively social, and products as well as producers of social systems. People are proactive, self-reflecting, and self-regulating, and not just reactive organisms shaped by environmental events or inner forces. People's behaviour can often be mediated by their self-efficacy beliefs, i.e. the beliefs they hold about their own ability to organize and perform actions to produce desired achievements (see Bandura 1997). Students' belief in their capabilities to master academic activities, affects their aspirations, their level of interest in academic activities, their academic accomplishments, and their emotions (Bandura 1994). Moulton et al. (1991) conducted a meta-analysis on 38 studies within the years 1977 to 1988 and found a positive relationship between self-efficacy and academic achievement. Several studies have provided strong evidence that self-efficacy is a positive predictor of performance outcomes, such as academic achievement (Michaelides 2008; Schunk et al. 2013; Usher and Pajares 2008). Furthermore, there is empirical evidence to support the positive effects of self-efficacy beliefs on students' well-being and course satisfaction (Pajares and Schunk 2001; DeWitz and Walsh 2002). Students with high self-efficacy tend to experience more satisfaction than the students with low self-efficacy. Self-efficacy is essentially understood as being domain-specific (Bandura 2006). But some researchers have proposed a generalized sense of self-efficacy that refers to a global confidence in one's coping ability across a broad range of demanding or novel situations (see Schwarzer and Jerusalem 1995). Generalized self-efficacy could be an applicable mediator for students' overall satisfaction with school.

Bandura (1994, 1997) prescribes mastery experience as a powerful vehicle for creating a sense of coping efficacy. There has been substantial research focusing on classroom management interventions organizing authentic mastery experiences to develop students' self-efficacy beliefs, academic achievement, and

satisfaction (see Zimmerman 1989; Ames 1992; Bandura 1993; Pajares 1996; Sewell and St. George 2000; O'Keefe et al. 2013). However, well-established classroom management practices focusing solely on the design of classroom environments and management plans do not encompass the interdependence of people. James S. Coleman's influential study on adolescent norms and subcultures in U.S. public high-schools (see J. S. Coleman 1961) showed that scholastic achievement was of minor importance compared to peer group relations. Norbert Elias stressed that the interplay of people's actions is immune to planning and emphasised that the autonomy of what a person calls "we" is more powerful than the plans and purposes of an individual "I" (Elias 1991, p. 62). In high-school, sense of identification with school can be considered an important factor in the development of self-efficacy beliefs and school satisfaction. The conclusion from the 75-year longitudinal Harvard Grant Study (Vaillant 2012) was that good interpersonal relations has the greatest positive impact on life satisfaction. Student satisfaction, especially among teenagers, is particularly influenced by the sense of belonging to a student group. The NESSE-report to the European Commission on Early School Leaving concludes that individual-focused interventions fails to recognise the social nature of why students leave school (Dale 2010). Sixty per cent of U.S. students did not list learning as the reason they attend school (Price 2013). In a study of 693 students in two Australian high-schools, the students' sense of belonging to their school was identified as the most significant variable for their well-being (Bizumic et al. 2009). An interview study in Norway by Ramsdal et al. (2018) found that the students described lack of relational network as an important influence in their dropout from school and employment. The WHO 2009/2010 survey on Health Behaviour in School-aged Children (HBSC), including 200,000 adolescents from 39 countries across Europe and North America, showed that those who perceived their school as supportive were more likely to engage in positive health behaviours and had better health outcomes, such as high levels of life satisfaction (Currie et al. 2012).

The need to belong is a fundamental human motivation (Baumeister and Leary 1995). Our need to belong has its roots in evolution and is essential to our survival (Lieberman 2013). Belonging is particularly important for the social development in adolescence (Allen and Kern 2017). Students are more likely to succeed when they feel a connection to school (Wingspread Declaration on School Connections 2004; Centers for Disease Control and Prevention 2009). Belonging has a significant impact on a range of factors associated with well-being, e.g. academic performance (Allen and Bowles 2012). Previous research has shown that feelings of connectedness to school can lead to positive attitudes towards learning, as well as academic self-efficacy (Battistich et al. 1995; Roeser et al. 1996). An Italian study (Vieno et al. 2007) found that school sense of community, was associated with both increased self-efficacy and satisfaction. Sánchez et al. (2005) found that a sense of school belonging significantly predicted academic outcomes, student effort, motivation, and low absenteeism. Osterman's (2000) review of educational research found that when students experience a sense of belonging at school, they were more likely to participate in learning activities, support each other, behave in accordance with school expectations and rules, and achieve at a higher level.

Nevertheless, there is a requirement of a more cohesive definition and terminology in research on social connectedness and belonging in educational settings. Allen and Bowles (2012) claimed that even though research demonstrates the importance of belonging, few attempts have been made to show how it may be developed. The research on school belonging has been inconsistent in the use of terminology (Allen et al. 2018), and a clear framework or model is lacking (see Jetten et al. 2012). A theoretical framework within social psychology focusing on human interdependence and self-organisation in groups, such as the social identity perspective, could provide a more specific explanatory model over traditional theories of belongingness. The present study considers social identification an important psychological process or mechanism that underlies such resources as social support, social connectedness, sense of belonging, and sense of community (for comprehensive reviews see Reynolds et al. 2017; Haslam et al. 2018). Tajfel (1972, 1978) describes social identity as the individual's knowledge of group membership and the emotional significance the individual attaches to that membership. Social identity theory (Tajfel and Turner 1979) and self-categorisation theory (Turner 1987) suggested that people categorise themselves as belonging to certain groups (in-groups). Once the individuals have identified with the group, they tend to compare their group with other groups (out-groups). Johnson et al. (2012) emphasised that people identify with groups to reduce social uncertainty and to feel better about themselves. They refer to people's self-categorization as cognitive identification, and preference for a positive self-image as affective identification. Moreover, they emphasised that self-categorization is a precondition for someone to feel any type of emotions related to their identification. When people identify with a group (e.g. high-school students), they are more likely to act in alignment with the group's beliefs, norms and values. Hogg (2000, 2007) emphasised that extreme uncertainty may encourage strong identification with highly entitative groups, as individuals can define themselves in terms of a clear and distinct prototype.

Social identity theory was initially developed to explain group behaviour relating to prejudice and intergroup conflict. Other consequences of group-based identification, especially related to well-being, have also been explored in recent years (see Jetten et al. 2012). For instance, sense of identification with multiple social groups has emerged as a central social identity construct important for health and well-being (Cruwys et al. 2016). In the educational context, it is crucial that teachers manage students' sense of belonging to their school and the social identification process. Teachers' classroom management, which involves the traditional organizing and teaching of student groups in the classroom, has been argued to be imperative for academic engagement and the students' social well-being (Evertson and Weinstein 2006; Marzano 2009). Hattie's (2009) synthesis of 800 meta-analyses covering more than 80 million pupils concluded that teachers were among the most powerful influences in learning. Allen et al. (2018) meta-analysis of the factors that influence school belonging, underscore the value of student–teacher relationships for sense of belonging to a school community. Findings from a Norwegian study (Havik et al. 2015) suggest that teachers' classroom management can play a significant role in school refusal and truancy, primarily through influencing relationships among student peers. Students' experience with adults and peer groups at school has strong

implications for their school related coping efficacy and academic behaviour (see Osterman 2002). Studies by Crosnoe et al. (2003) and Crosnoe et al. (2008) showed that adolescents' academic achievement was associated with the academic orientation and accomplishment of their close friends and course mates. A meta-analysis by Roseth et al. (2008) carried out with 148 studies from eleven countries found that positive peer relationships explained 33–40 per cent of the variance in academic achievement. Greenaway et al. (2017) showed that social identification positively predicted students' academic satisfaction. Reynolds et al. (2017) showed that students' identification with their school predicted their engagement with the school and enhanced their performance on a national standardised test of learning outcomes. Hence, a crucial strategy in classroom management is the leadership of students' school identification.

Bennis (1999) claimed that no leadership can occur without willing and committed followers. J. S. Coleman (1961) argued that in order to direct students' attention to learning we must change the norms of the culture within the school, e.g. in the student peer groups. Stacey (2003, 2007) emphasised that learning in organisations is an activity of interdependent people, and that the role of the leader is to participate actively in local interactions to widen and deepen communication. From a social identity perspective strong leadership, evolving out of a relationship between leaders and followers within a given social group such as high-school students, requires an intimate understanding of the social identification process (see Mavor et al. 2017). An important first step is clarifying and consolidating the norms, values, and the actual experience of interactions among the students, i.e. who we are, what we do, why we do it, and what makes us special (see Reynolds et al. 2017).

According to Haslam et al. (2011) social identity leadership is a matter of representing, advancing, creating, and embedding a sense of shared social identity. For the teachers, social identity leadership in the classroom implies that they must (1) represent the student group. The teachers should be model examples for the student group and demonstrate applicable learning behaviour which the students can identify with. Modelling is also one of the most efficient modes of learning new skills and knowledge (Bandura 1986). This leads the students to develop closer ties to the teachers, where the teachers become a prototypical embodiment of the students' aspirations, and "being one of us" rather than representing an outgroup with learning objectives of minor relevance to the students. The teachers must (2) advance the student group, act as their champions, and have the students' interests as their primary task. Hattie (2009) emphasised that the teachers should see learning through the eyes of the students and have their learning at heart. The students should feel that the teachers "does it for them" and that the teachers are committed to help them achieving their goals. The teachers must (3) actively involve themselves in the students' local interactions and create a sense of cohesion within the student group. This gives the students a "sense of us" and a feeling that they belong to the same group which they can identify with. Haslam et al. (2018) emphasised that group identification channels the members' attention and energy and gives them a sense of common direction and purpose. Likewise, Wenger points out that learning occurs in communities of practice as the mutual engagement in common activities among the members, producing a shared sense of identity (see Wenger 1998; Wenger et al. 2002). Finally,

the teachers must (4) embed structures and operational learning objectives in the student group, "making them matter" and enable them to actively live out their identity. In correspondence to this, Johnson et al. (1994) emphasised the importance of providing students with a structure for student–student cooperation in the classroom. Schunk (1995) stressed that it is necessary to both assign goals and teach goal-setting strategies to help students achieve their academic objectives.

The purpose of this study was to examine how high-school students' school identification and self-efficacy were associated with school satisfaction. Based on the literature review, we expected that the students' school identification would be associated with self-efficacy and school satisfaction. Self-efficacy was hypothesised to be a mediator. School identification, multiple group memberships, and teachers' social identity leadership were hypothesized to be associated with general and academic self-efficacy, which is associated with school satisfaction, measured by level of satisfaction with school, teachers, teaching, and classmates ("Appendix" shows a heuristic working model of the associations in the study).

2 Methods

2.1 Sample

A self-completion survey was carried out in three Norwegian high-schools. A total of 794 first-year high-school students participated in the survey. No respondents refrained from participating in the study. The current study was conducted in line with the American Psychological Association's ethical principles of psychologists and code of conduct. Our study did not collect or process any kind of personal or sensitive personal data which relate to an identified or identifiable person (see The Norwegian Personal Data Act 2000, Sect. 2), such as name, birth date, and school. Prior to the data collection, the Norwegian Centre for Research Data was consulted. Any formal notification of the study was deemed not necessary. The respondents were informed that participation in the study was voluntary, that they could not be identified, and that by filling in the questionnaire they were considered to have given their informed consent. The sample consisted of 385 girls, and 409 boys. The respondents were 16 years old. The survey was conducted at the end of the autumn (mid-October) in 2015, 2016, 2017, and 2018, two months after the first-year students had started school, with respondents from both the programme for specialisation in general studies (n = 341) and the programme for vocational education (n = 453).

2.2 Questionnaires

School Satisfaction (S-SAT) was measured as follows: "So far, what is your level of satisfaction with…", "the school", "the teachers", "the teaching", and "the classmates". The respondents indicated on a five-point Likert scale, labelled "very dissatisfied" (1), "satisfied" (2), "neither" (3), "dissatisfied" (4), and "very satisfied"

(5), to what degree each of the statements applied for them. For the other measurements (please see below), scales labelled "strongly disagree" (1), "disagree" (2), "undecided" (3), "agree" (4) and "strongly agree" (5) were used. To measure school identification, six social identification measures were included in the study. Cognitive and Affective Identification (CAI), an eight-item instrument (Johnson et al. 2012), was used measuring affective identification with high-school (CAI-A) and cognitive identification with high-school (CAI-C). In addition, a three-item measure of social identification with the students (TISI-S) and a three-item measure of social identification with the teachers (TISI-T) at high-school were developed. The items were based on Postmes et al. (2013) Single-Item Social Identification Measure. The three items developed to measure TISI-S were the following: "I identify with the students at this high-school", "I identify with the students in the common core subject courses", and "I identify with the students in the program subject courses". The following three items were developed to measure TISI-T: "I identify with the teachers at this high-school", "I identify with my teachers in the common core subject courses", and "I identify with my teachers in the programme subject courses". Identification with the classmates (ICM) was examined by Doosje et al. (1995) Group Identification Questionnaire, including four items: "I am pleased to be a student in my high-school class", "I feel strong ties with my high-school classmates", "I see myself as a student in my high-school class", and "I identify with my high-school classmates". Furthermore, the Identity Leadership Inventory Short Form (ILI-SF) was included in the survey (Steffens et al. 2014) comprising four items measuring teacher's social identity leadership (IL-T): "Our teachers are model members for the student group", "Our teachers act as champions for the student group", "Our teachers create a sense of cohesion within the student group", and "Our teachers create structures that are useful for the student group members". Multiple Group Memberships (MGM) was assessed with three items from the Exeter Identity Transition Scale (Jetten et al. 2015). These included: "I am a member of lots of different groups", "I am active in lots of different groups", and "I have friends in lots of different groups". To measure General Self-Efficacy (GSE), a Norwegian version of Schwarzer and Jerusalem (1995) ten-item measurement instrument (Røysamb et al. 1998), was applied. To measure domain-specific self-efficacy (see Bandura 2006) an Academic Self-Efficacy Scale (ASE) was developed containing four items: "I am confident that I succeed the common core subject courses", "I am confident that I succeed the program subject courses", "I am sure that I cope with being a student at this high-school", and "I am sure that I can complete high-school". In addition, a questionnaire containing demographical variables (gender, age, education programme, and parents' educational level) was included.

2.3 Statistical analysis

In addition to descriptive statistics, MANCOVA was used to examine differences in school satisfaction due to gender, education programme and parents' educational level. Principal Component Analysis (PCA) was used to examine the dimensional structure of the six school identification measurements and the multiple group

memberships measurement used in the current study. All the measurements were entered in one analysis. Confirmatory Factor Analysis (CFA) was used as an auxiliary method to determine the dimensional structure of self-efficacy and to test the fit of the dimensional model to the data. Thereafter, the associations between school identification and self-efficacy on the one hand, and school satisfaction on the other hand, were analysed by use of hierarchical multiple regression analysis. Demographic variables (gender, education programme, and parents' level of education) were controlled for in the analysis. The dependent variable in the first hierarchical regression analysis was school satisfaction, and four identical analyses were thereafter carried out to examine the four various domains of school satisfaction. Path analysis was applied for comparing the magnitude of direct and indirect associations between the four main types of variables (school identification, multiple group memberships, self-efficacy and school satisfaction). For all the SEM analyses the maximum likelihood method (SEM-LM) was used. Path analysis can only indirectly be used for examining relationships between directly measured variables entered into the models by modifying or eliminating poor models that give predictions which are inconsistent with the data. In the current study, the fit of the models to the data was examined by use of the $\chi 2$/d.f. ratio, the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and the Standardised Root Mean Square Residual (SRMR). Weighted z-scores were used in all the hierarchical regression analyses and in the SEM path models.

3 Results

The respondents were asked how satisfied they were with their school, their teachers, the teaching, and their classmates. Table 1 shows the percentage of the respondents who were satisfied and dissatisfied with these aspects. As can be seen, the majority were satisfied with the four school domains. They were most satisfied with their classmates and their school, and least satisfied with the teaching. MANCOVA analysis (results not shown in the table) showed there were differences in satisfaction due to gender (Wilks' $\lambda = .96$, $P < .01$), education programme (Wilks' $\lambda = .97$, $P < .05$), and father's educational level (Wilks' $\lambda = .92$, $P < .01$). There were no significant differences in school satisfaction due to mother's educational level. Female respondents were more satisfied compared to male respondents, those who attended the programme for vocational education were more satisfied than those who attended the programme for specialisation in general studies, and the higher father's educational

Table 1 School Satisfaction (%)

Satisfaction with:	Dissatisfied	Neither/nor	Satisfied
School	5	19	76
Teachers	7	25	68
Teaching	7	32	61
Classmates	6	17	77

level was, the more satisfied were the respondents. Due to the differences, demographic variables were controlled for the further analyses. Dichotomous variables cannot be measured at interval level. Therefore, the role of these variables may be underestimated in the analysis.

First a PCA was carried out to examine the School identification and multiple group memberships measurements. The seven measurements were entered into the same analysis, and the single items loaded on the factors as expected. Thereafter a CFA was carried out to examine the fit of the dimensional structure to the data. Column 2 (Table 2) shows the internal consistency of the measurement instruments, and the remaining columns the fit of the entire model with seven measurements to the data from the SEM analysis of the entire factor structure. As can be seen, the reliability and internal consistency were found to be satisfactory for all the seven measurements (χ2/d.f.–ratio = 3.91, RMSEA = .068, CFI = .97, GFI = .96, SRMR = .041). In addition, the internal consistency of the 10-item measurement instrument of general self-efficacy was also found to be satisfactory (α = .891), as well as the four items intended to measure academic self-efficacy (α = .774).

The next step was to examine the role of school identification and self-efficacy in school satisfaction. The four items measuring various types of school satisfaction were summarised. Table 3 shows the results of a hierarchical multiple regression analysis aimed at predicting school satisfaction. Demographic factors were controlled for in the analysis, and consequently entered as the first block. The results showed that these factors significantly influenced variance in the dependent variable (F = 2.41, $P < .05$). The second block was general self-efficacy and academic self-efficacy. The increase in explained variance caused by these two predictor variables were significant ($\Delta R^2 = .17$, F Change = 62.51, $P < .001$). It was especially academic self-efficacy which was found to be an important prediction variable (β = .39), while general self-efficacy was found to be an insignificant prediction variable. The third block was teachers' social identity leadership. The increase in explained variance caused by this predictor variable was significant ($\Delta R^2 = .09$, F Change = 66.94, $P < .001$). The final block was the other five measures of school identification. Also, the increase in explained variance ($\Delta R^2 = .20$) caused by these variables were significant (F Change = 44.78, $P < .001$). The most significant measures were affective

Table 2 School Identification and Multiple Group Memberships-reliability and fit of the data to the model

	Cronbach's α	χ2/d.f.-ratio	RMSEA	CFI	GFI	SRMR	Number of items
CAI-A	.861	3.91	.068	.97	.96	.041	4
CAI-C	.817						4
IL-T	.838						4
ICM	.851						4
MGM	.854						3
TISI-S	.890						3
TISI-T	.754						3

Table 3 Predictors of School Satisfaction—results of hierarchical multiple regression analysis

Predictor variables	Block 1	Block 2	Block 3	Block 4	F Change
Gender	.10*	.05	.06*	.04*	2.41**
Education programme	.08	.07*	.05	.02	
Education mother	.04	.03	.02	.03	
Education father	.00	− .02	− .02	− .00	
GSE		.05	.02	.03	62.51***
ASE		.39***	.36***	.20	
IL-T			.30***	.30***	66.94***
CAI-C				.04	44.78***
CAI-A				.34***	
ICM				.26***	
TISI-T				.16***	
TISI-S				.11**	
R^2	.02*	.19***	.28***	.48***	
ΔR^2		.17	.09	.20	

* = $P < .05$, ** = $P < .01$, *** = $P < .001$

identification with high-school (β = .34, $P < .001$), identification with the classmates (β = .26, $P < .001$), identification with the teachers at high-school (β = .16, $P < .001$) and identification with the students at high-school (β = .11, $P < .05$). Multiple Group Memberships was excluded from the analysis, because it was not a significant predictor for school satisfaction.

Table 4 shows the results of four separate hierarchical multiple regression analyses aimed at investigating the associations between demographic variables, self-efficacy and school identification on the one hand, and the respondents' satisfaction

Table 4 Predictors of school satisfaction—results of four hierarchical multiple regression analyses (only results of the final block is shown)

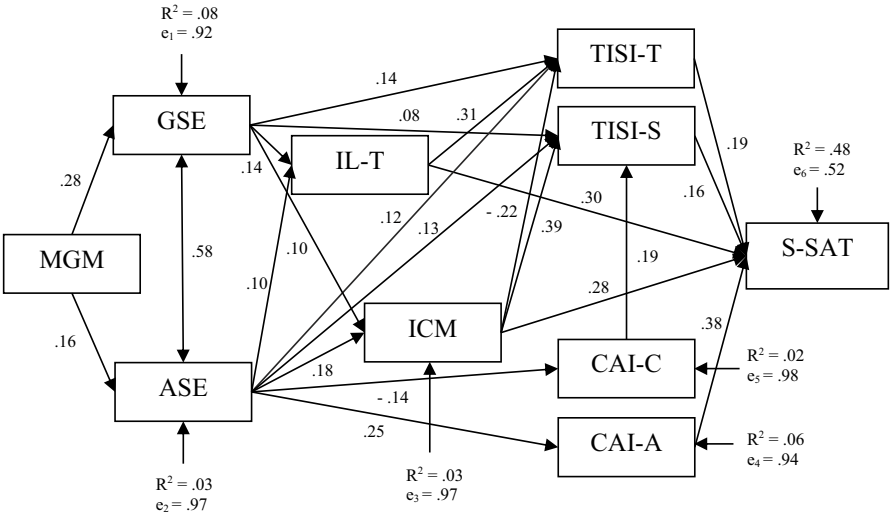
Predictor variables	School	Teachers	Teaching	Classmates
Gender	.07	.01	.03	.03
Education programme	− .01	.08*	.01	− .05
Education mother	.06	.03	.03	− .03
Education father	− .01	− .02	− .02	.06
GSE	− .04	.00	.01	− .07
ASE	.20***	.11**	.24***	.06
IL-T	.17***	.37***	.29***	.09
CAI-C	.10**	− .01	.06	− .02
CAI-A	.39***	.25***	.23***	.18***
ICM	.22***	.06	.02	.60***
TISI-T	.09**	.17***	.10*	.16***
TISI-S	.10	.08*	.06	.09
R^2	.35	.30***	.45	.45

* = $P < .05$, ** = $P < .01$, *** = $P < .001$

with their school, with their teachers, the teaching, and their classmates on the other hand (only the final block of the analyses are shown in Table 4). Depending on the criterion variable, the analyses explained between 30 and 45 per cent of the variance in school satisfaction. As expected, the results were similar to the results presented in Table 3. They supported the result that school identification is significantly associated with school satisfaction. As already shown, general self-efficacy seemed to be of minor importance. However, academic self-efficacy was found to be a significant predictor for the students' satisfaction with their school ($\beta = .20$, $P < .001$), their teachers ($\beta = .11$, $P < .01$), and the teaching ($\beta = .24$, $P < .001$). The most significant prediction variables in the first three analyses, presented in Table 4, were affective identification with high-school ($\beta = .18$ - $.39$, $P < .001$), and not unexpectedly identification with the classmates was the most significant in satisfaction with classmates ($\beta = .60$, $P < .001$).

The current study examined the hypothesis that school identification and multiple group memberships were associated with self-efficacy, and self-efficacy associated with school satisfaction (see "Appendix"). First, a SEM-path model aimed at predicting school satisfaction (as the endogenous variable) and the six measurements of school identification and the multiple group memberships measurement as the exogenous variables was tested, with the two measurements of self-efficacy as mediating variables. The fit of such a model to the data was found to be acceptable, however did not perfectly satisfy all the criteria for a suited model ($\chi 2$/d.f.–ratio = 4,75, RMSEA = .074, CFI = .94, GFI = .97, SRMR = .041). The exogenous variables explained a significant part of the variance in general self-efficacy ($R^2 = .28$, $e_1 = .72$) as well as academic self-efficacy ($R^2 = .46$, $e_2 = .54$). The same exogenous variables also significantly predicted school satisfaction ($R^2 = .52$, $e_3 = .48$). However, neither general self-efficacy ($\beta = .01$) nor academic self-efficacy ($\beta = .05$) significantly influenced school satisfaction. Despite an acceptable model fit to data, the tested model seemed not to be very suitable for explaining the role of self-efficacy in school satisfaction. Therefore, this model is not shown as a figure in the presentation of results. Consequently, an additional model, where the association between self-efficacy and school satisfaction was hypothesised to be indirect (see Fig. 1).

In this model (Fig. 1), the most significant predictor of school satisfaction was affective identification with high-school ($\beta = .38$) and identification with the classmates ($\beta = .28$). Identification with the teachers ($\beta = .19$) and with the students ($\beta = .16$) at high-school were also found to be significant direct predictor variables. Identification with the classmates had a direct ($\beta = .28$) as well as an indirect association ($\beta = .39$) with school satisfaction via identification with the students at high-school ($\beta = .38$) as well as identification with the teachers ($\beta = -.22$). Teachers' social identity leadership also showed to have a direct ($\beta = .30$), as well as an indirect ($\beta = .31$), association with school satisfaction via identification with the teachers at high-school ($\beta = .19$). Academic self-efficacy was associated with affective identification with high-school ($\beta = .25$). The exogenous variable, multiple group memberships, explained a moderate percentage of the variance in general self-efficacy ($R^2 = .08$, $e_1 = .92$) as well as academic self-efficacy ($R^2 = .03$, $e_2 = .97$). However, neither general self-efficacy nor academic self-efficacy significantly influenced school satisfaction, and these associations were consequently removed from the



2/d.f. – ratio = 4.01, RMSEA = .054, CFI = .94, GFI = .97, SRMR = .043

Fig. 1 Prediction of school satisfaction

model. In total the model explained 48 per cent of the variance in school satisfaction ($e_6 = .52$). The fit of the model to the data was found to be acceptable ($\chi 2$/d.f. – ratio = 4,01, RMSEA = .054, CFI = .94, GFI = .97, SRMR = .043).

4 Discussion

The study showed the importance of school identification. The majority of the school identification measures were significantly associated with school satisfaction. The most significant predictor of school satisfaction was affective identification with high-school. This is in accordance with Johnson et al. (2012) who found that affective identification was the strongest predictor for sense of satisfaction in organizational settings. The feeling of belonging to a peer group, being part of a community, and experiencing a sense of shared social identity, have a significant impact on learning, health, and well-being (see Haslam et al. 2009; Allen and Bowles 2012; Dworkin et al. 2013; Haslam et al. 2018). Humans are born into social groups, and generally spend their lives in a community. It is important to create learning environments the students can identify with to achieve their learning objectives. Understanding the factors that foster educational identification is important for the management of students' school satisfaction, educational achievement, academic performance and school attendance (see Greenaway et al. 2017). The results also showed that the magnitude of the students in our study were satisfied with school. The study had no statistics on the student absence rate, but national survey data indicate that the

absence rate at Norwegian high-schools in 2016–2017 was on average 3 days and 8 h annually (see Andresen et al. 2017).

Somewhat unexpectedly, general and academic self-efficacy were found to be insignificant mediators of school satisfaction. However, in addition to the strong association between affective identification with high-school and school satisfaction, the results showed that there was a significant association between academic self-efficacy and affective identification with high-school. Consequently, the effect of self-efficacy, had to be looked into more closely. Based on the SEM-results, the working model of the study therefore had to be altered.

Our finding is supported by Bandura's (2006) emphasis on domain-specificity of self-efficacy. According to Bandura, the "one measure fits all" approach usually has limited explanatory and predictive value, because most of the items in an all-purpose test may have little or no relevance to the domain of functioning. The association between the domain-specific academic self-efficacy and affective identification with high-school do not only shows the importance of domain-specific self-efficacy measures, it also shows that self-efficacy domains are social domains. Johnson et al. (2012) defined affective identification as the positive feeling people develop when categorizing themselves as group members. The positive feelings students develop when categorising themselves as high-school students, could be related to the coping beliefs they hold about their own ability to achieve their academic goals. A good deal of research demonstrates that there are psychological benefits to belonging, including high self-efficacy beliefs (Allen and Kern 2017). Those who share group identity as high-school students, will also believe they can pursue their academic tasks, and act in the ways they expect students should act.

In this study, there was no direct association between multiple group memberships and school satisfaction, but there was a significant association between the students' multiple group memberships and general self-efficacy. We expect that multiple group memberships require multiple competencies. Hence, the greater the number of group memberships one has access to, the better one is likely to trust one's general competence to tackle novel tasks and cope with challenges across domains. A large body of work shows that people with more social group memberships have better psychological well-being than those who belong to fewer social groups (Jetten et al. 2015). But memberships in multiple groups are no guarantee for well-being (Sønderlund et al. 2017). The psychological consequences of group memberships are likely to be contingent on the values attached to these groups. Group memberships and social identification are not synonymous. Only the groups we identify with have the potential for satisfaction. It is quite possible to be a member of lots of different groups but feel very little sense of social identification with the groups (see Jetten et al. 2015).

A significant social identification measure associated with school satisfaction was teachers' social identity leadership, i.e. the teachers' capacities to be model members the students can identify with, act as champions with the students' interests as their primary task, create a sense of cohesion within the student group, and make structures useful for the group members. Students are satisfied with school because they believe the teachers understand and meet their needs. Moreover, our study found a significant association between teachers' social identity

leadership and social identification with the teachers. Reynolds et al. (2017) emphasised that learning itself is a social influence process, depending on the teachers being perceived as prototypes of the in-group. The students' beliefs, such as their beliefs about the teachers' educational practices and their own efficacy beliefs, influence their social identity, school satisfaction and learning (see Bandura 1986; Rosenthal and Jacobson 1992; Eden 2014). This explanation is also supported by the results in our study showing that academic self-efficacy is indirectly associated with school satisfaction, with affective identification with high-school as the mediator.

This study found a significant association between school satisfaction and identification with the classmates. In general, social identification is a self-sustained process of social categorization, social identification, and social comparison (Tajfel and Turner 1979). Hence, the relationship between social identification and well-being creates a "virtuous circle", where group identification promotes well-being, which in turn encourages further group-related engagement and identification, and so on. The association between identification with the classmates and school satisfaction in this study can follow the same virtuous circle, strengthening the social identification process with the classmates and the students at high-school. Our study also found a significant association between identification with the classmates and social identification with the students at the high-school. For students who do not identify with their classmates and the other students at school, the process can go in the opposite direction and create a "vicious circle" of social alienation, dissatisfaction with school and non-attendance. Their social identification could find other venues outside of school, such as social media, gaming, or street gangs. Students at risk of dropping out of school could benefit from the teachers' active management of the students' school identification process, because otherwise these students could easily identify with alternative "countercultures" that are negative to school. This shows the self-organizing nature of social relations (see Stacey 2003, 2007), where it is difficult to control the outcome of the identification process if the teachers do not actively involve themselves in the ongoing, ordinary student–student interactions. William Golding's novel Lord of the Flies portrays the devastating outcomes of social identification processes when youths attempt to govern themselves on a deserted island (Golding 1954). William Foote Whyte's study of street corner gangs and their social relations in Boston's North End more than 80 years ago (Whyte 1993) showed the failure of the groups' self-organisation to assimilate with the structure of the larger society. Throughout history we have seen the disastrous outcomes of group identification on intolerance, prejudices, and discrimination, such as slavery, holocaust, apartheid, violent radicalisation and terrorism (see Hogg et al. 2010; Hogg and Adelman 2013; Zick et al. 2008, 2011).

Human self-organisation in groups can be understood as a social identification process, and this study shows the importance of high-school students' social identification with their teachers and fellow students in order to be satisfied with school. Consequently, teachers' management of the students' school identification process is a crucial intervention strategy in classroom management.

4.1 Limitations and future directions

Based on the model tests of the current study, it is not possible to draw a decisive conclusion about causality. The initial hypothesis was that general and academic self-efficacy were significant mediators on school satisfaction. However, this study gave no support to this hypothesis. It seems to be the case that self-efficacy is weakly associated with school satisfaction when social identification is taken into the account. This may indicate that it is another relationship between self-efficacy and school satisfaction than in studies carried out previously. To have confidence in one's ability to perform actions and belong to a social group are highly interconnected because self-efficacy domains are social domains and dependent on the individual's identification with a group that advocates the domain-specific behaviour.

Our social brain is particularly active during adolescence (Lieberman 2013), and teachers' social identity leadership in the classrooms, as well as in the school workshops, is probably the most important management intervention for the students' school satisfaction and engagement in curricular activities. Moreover, Mahoney and Cairns (1997) found that involvement in school-based extracurricular activities protected against early school dropout among at-risk students, by creating a positive and voluntary connection to the educational institution. Further research should examine the relationship between the various domains of social identification and self-efficacy with school satisfaction, as well as with academic engagement, academic achievement, and school attendance.

The respondents in this study are high-school students attending school, with less than 10% absence in any subject. Hence, we have no data on the association between social identification and school satisfaction on students not attending school. Much of the recommendations from the school research suggest that the teachers are imperative (e.g. Hattie 2009) for the students' learning and well-being at school. The research has mainly been conducted on students attending school, including the research on student learning and achievement, academic self-efficacy, sense of belonging to school, and school satisfaction. One potential limitation of this study is the lack of data on the social identification among students who refuse to go to school or who are absent for different reasons. Should teachers succeed in social identity leadership, it is important to understand the social identification process. The same socio-psychological mechanisms can of course be applied as an explanation for both attendance and non-attendance students. Further research should focus on drop-out students' social identification with alternative outgroups or "parallel societies" that are negative to conventional schooling, e.g. street gangs, social media and online gaming.

Another potential limitation with this study is that we summarised the four items in the ILI-SF scale into a single measure on teachers' social identity leadership. Steffens et al. (2014) strongly recommend using the ILI scale to examine separate dimensions of identity leadership rather than bundling these together in one global measure. They emphasised that the ILI scale distinguished between the four different identity leadership dimensions, and that the interrelationship between dimensions vary with context. They argue that even when the dimensions are correlated, the scale fits the data better when distinguishing between

the dimensions rather than treating all dimensions in terms of a single superordinate "identity leadership" factor. None of the teachers at our schools had any formal training in social identity leadership. We decided to use the ILI-SF scale with only four items. The correlation between the items were significant, and it was decided to use the summarized score as a single measure on teachers' social identity leadership. Moreover, van Dick et al. (2018) found evidence for the utility of the ILI-SF scale to measure a general identity leadership factor. This study cannot make any assumptions about the association between the separate dimensions of teachers' social identity leadership and school satisfaction. Further research, looking closer into the relationship between teachers' social identity leadership and high-school students school satisfaction should include a social identity leadership development program, such as the 5R Program (Haslam et al. 2017).

5 Conclusion

In conclusion, the results of the current study carried out among Norwegian high-school students, showed that the majority were satisfied with school, and the most significant predictors of school satisfaction were affective identification with high-school, students' identification with the classmates, and the teachers' social identity leadership.

The role of self-efficacy was found to be minor when entering social identification into the model, expect the significant association between academic self-efficacy and affective identification with high-school. This association was explained as a relationship between the students' positive feelings about categorising themselves as high-school students and their efficacy beliefs on academic achievement. We hope that the current research contributes to an enhanced interest for the role of social identification in school satisfaction, and further research on the relationship between social identification, self-efficacy, school satisfaction, academic achievement and school attendance. Moreover, the current research could be a contribution to a "new psychology of classroom management", with a recognition of classroom management as a social identity leadership process, were teachers and students come to see each other as companions with a common quest.

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Compliance with ethical standards

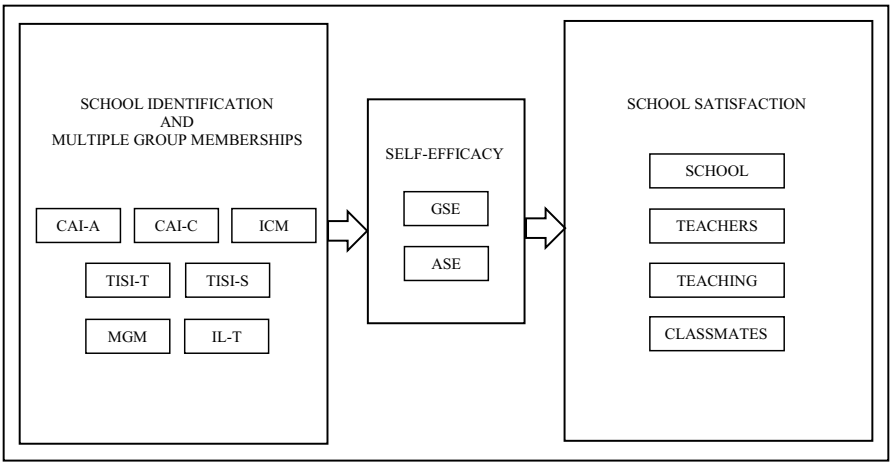
Conflict of interest Inge-Ernald Simonsen and Torbjørn Rundmo declare that there is no conflict of interest.

Ethical approval According to the requirements of The Norwegian Centre for Research Data (https://nsd.no/personvernombud/en/notify/index.html) formal notification of the study was deemed not necessary.

Informed consent Informed consent was obtained from all participants.

Appendix

See Fig. 2.



CAI-A = Affective Identification with High-School; CAI-C = Cognitive Identification with High-School; ICM = Identification with Classmates; TISI-T = Identification with Teachers; TISI-S = Identification with Students; MGM = Multiple Group Memberships; IL-T = Teachers' Social Identity Leadership; GSE = General Self-Efficacy; ASE = Affective Self-Efficacy.

Fig. 2 Heuristic working model of the association between school identification, multiple group memberships, self-efficacy and school satisfaction

References

Allen, K. A., & Bowles, T. (2012). Belonging as a guiding principle in the education of adolescents. *Australian Journal of Educational & Developmental Psychology, 12,* 108–119.

Allen, K. A., & Kern, M. L. (2017). *School belonging in adolescents: Theory, research, and practice*. Singapore: Springer Verlag. https://doi.org/10.1007/978-981-10-5996-4.

Allen, K. A., Kern, M. L., Vella-Brodrick, D., Hattie, J., & Waters, L. (2018). What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review, 30,* 1–34. https://doi.org/10.1007/s10648-016-9389-8.

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84,* 261–271. https://doi.org/10.1037/0022-0663.84.3.261.

Andresen, S., Bjørnset, M., Reegård, K. & Rogstad, J. (2017). *Fraværet er redusert, men… Tilpasninger og konsekvenser av fraværsgrensen i videregående opplæring, 33.* [Absence is reduced, but… Adaptations and consequences of the absence limit in upper secondary education, 33.]. Oslo: Fafo. In Norwegian. Retrieved from https://www.udir.no/globalassets/filer/tall-og-forskning/rapporter/2017/delrapport-evaluering-fravar.pdf.

Bäckman, O., Jakobsen, V., Lorentzen, T., Österbacka, E., & Dahl, E. (2015). Early school leaving in scandinavia: Extent and labour market effects. *Journal of European Social Policy, 25,* 253–269. https://doi.org/10.1177/0958928715588702.

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

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28,* 117–148. https://doi.org/10.1207/s15326985ep2802_3.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71–81). New York: Academic Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. In S. T. Fiske (Ed.), *Annual review of psychology* (Vol. 52, pp. 1–26). Palo Alto: Annual Reviews Inc. https://doi.org/10.1146/annurev.psych.52.1.1.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (Vol. 5, pp. 307–337). Greenwich: Information Age Publishing.

Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal, 32,* 627–658. https://doi.org/10.3102/00028312032003627.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117,* 497–529. https://doi.org/10.4324/9781351153683-3.

Bennis, W. (1999). The end of leadership: Exemplary leadership is impossible without full inclusion, initiatives, and cooperation of followers. *Organizational Dynamics, 28,* 71–80. https://doi.org/10.1016/S0090-2616(00)80008-X.

Bizumic, B., Reynolds, K. J., Turner, J. C., Bromhead, D., & Subasic, E. (2009). The role of the group in individual functioning: School identification and the psychological well-being of staff and students. *Applied Psychology. An International Review, 58,* 171–192. https://doi.org/10.1111/j.1464-0597.2008.00387.x.

Centers for Disease Control and Prevention (2009). *School connectedness: Strategies for increasing protective factors among youth.* Atlanta: U.S. Department of Health and Human Services. Retrieved from https://www.cdc.gov/healthyyouth/protective/pdf/connectedness.pdf.

Coleman, J. S. (1961). *The adolescent society: The social life of the teenager and its impact on education*. Oxford: Free Press of Glencoe.

Coleman, J. (2009). Well-being in schools: Empirical measure, or politician's dream? *Oxford Review of Education, 35,* 281–292. https://doi.org/10.1080/03054980902934548.

Crosnoe, R., Cavanagh, S., & Elder, G. H., Jr. (2003). Adolescent friendships as academic resources: The intersection of friendship, race, and school disadvantage. *Sociological Perspectives, 46,* 331–352. https://doi.org/10.1525/sop.2003.46.3.331.

Crosnoe, R., Riegle-Crumb, C., Frank, K., Field, S., & Muller, C. (2008). Peer group contexts of girls' and boys' academic experiences. *Child Development, 79,* 139–155. https://doi.org/10.1111/j.1467-8624.2007.01116.x.

Cruwys, T., Steffens, N. K., Haslam, S. A., Haslam, C., Jetten, J., & Dingle, G. A. (2016). Social identity mapping: A procedure for visual representation and assessment of subjective multiple group memberships. *British Journal of Social Psychology, 55,* 613–642. https://doi.org/10.1111/bjso.12155.

Currie, C., Zanotti, C, Morgan, A., Currie, D., de Looze, M., Roberts, C., Barnekow, V. (Eds.). (2012). *Social determinants of health and well-being among young people. Health behaviour in school-aged children (HBSC) study: International report from the 2009/2010 survey.* (Health policy for children and adolescents, No. 6). Copenhagen: WHO Regional Office for Europe. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf.

Dale, R. (2010). *Early school leaving: lessons from research for policy makers. An independent expert report submitted to the European Commission on behalf of the network of experts in social sciences of education and training (NESSE).* Brussels: European Commission, DG Education and Culture. Retrieved from http://archimedes.ee/wp-content/uploads/2014/01/early-school-leaving-report.pdf.

Dewey, J. (1938). *Experience and education*. Indianapolis: Kappa Delta Pi Publications.

DeWitz, S. J., & Walsh, W. B. (2002). Self-efficacy and college student satisfaction. *Journal of Career Assessment., 10,* 315–326. https://doi.org/10.1177/106727202010003003.

Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology, 31,* 410–436. https://doi.org/10.1006/jesp.1995.1018.

Dworkin, A. G., Ballantine, J., Antikainen, A., Barbosa, M. L., Konstantinovskiy, D., Saha, L. J., et al. (2013). The sociology of education. *Sociopedia.isa, 1,* 16. https://doi.org/10.1177/2056846013122.

Eden, D. (2014). Self-fulfilling prophecy and the Pygmalion effect in management. In R. W. Griffin (Ed.), *Oxford bibliographies in management*. New York: Oxford University Press. https://doi.org/10.1093/obo/9780199846740-0014.

Elias, N. (1991). *The society of individuals* (M. Schröter, Ed.; E. Jephcott, Trans.). Oxford, UK: Basil Blackwell. (Original work published 1939, 1940s–1950s, and 1987).

Evertson, C. M., & Weinstein, C. S. (Eds.). (2006). *Handbook of classroom management. Research, practice and contemporary issues*. Mahwah: Lawrence Erlbaum Associates.

Forskrift til Opplæringslova (2006, Sect. 3-3). (FOR-2006-06-23-724). [Regulation relating to The Norwegian Education Act (2006, Sect. 3-3)]. Oslo: Kunnskapsdepartementet. In Norwegian. Retrieved from https://lovdata.no/dokument/SF/forskrift/2006-06-23-724/KAPITTEL_4#KAPITTEL_4.

Golding, W. (1954). *Lord of the flies*. Boston: Faber and Faber.

Greenaway, K., Amiot, C. E., Louis, W. R., & Bentley, S. V. (2017). The role of psychological need satisfaction in promoting student identification. In K. I. Mavor, M. J. Platow, & B. Bizumic (Eds.), *Self and social identity in educational contexts* (pp. 176–192). Abingdon: Routledge. https://doi.org/10.4324/9781315746913.

Haslam, C., Jetten, J., Cruwys, T., Dingle, G. A., & Haslam, S. A. (2018). *The new psychology of health: Unlocking the social cure*. New York: Routledge. https://doi.org/10.4324/9781315648569.

Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology-An International Review-Psychologie Appliquee-Revue Internationale, 58,* 1–23. https://doi.org/10.1111/j.1464-0597.2008.00379.x.

Haslam, S. A., Reicher, S. D., & Platow, M. J. (2011). *The new psychology of leadership: identity, influence and power*. Hove: Psychology Press. https://doi.org/10.4324/9780203833896.

Haslam, S. A., Steffens, N. K., Peters, K., Boyce, R. A., Mallett, C. J., & Fransen, K. (2017). A social identity approach to leadership development: The 5R program. *Journal of Personnel Psychology, 16,* 113–124. https://doi.org/10.1027/1866-5888/a000176.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York: Routledge. https://doi.org/10.4324/9780203887332.

Havik, T., Bru, E., & Ertesvåg, S. K. (2015). School factors associated with school refusal- and truancy-related reasons for school non-attendance. *Social Psychology of Education, 18,* 221–240. https://doi.org/10.1007/s11218-015-9293-y.

Hogg, M. A. (2000). Subjective uncertainty reduction through self-categorisation: A motivational theory of social identity processes. *European Review of Social Psychology, 11,* 223–255. https://doi.org/10.1080/14792772043000040.

Hogg, M. A. (2007). Uncertainty-identity theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 39, pp. 69–126). San Diego: Academic Press. https://doi.org/10.1016/s0065-2601(06)39002-8.

Hogg, M. A., & Adelman, J. (2013). Uncertainty–identity theory: Extreme groups, radical behavior, and authoritarian leadership. *Journal of Social Issues, 69,* 436–454. https://doi.org/10.1111/josi.12023.

Hogg, M. A., Meehan, C., & Farquharson, J. (2010). The solace of radicalism: Self-uncertainty and group identification in the face of threat. *Journal of Experimental Social Psychology, 46,* 1061–1066. https://doi.org/10.1016/j.jesp.2010.05.005.

Jetten, J., Branscombe, N. R., Haslam, S. A., Haslam, C., Cruwys, T., Jones, J. M., et al. (2015). Having a lot of a good thing: Multiple important group memberships as a source of self-esteem. *PLoS ONE, 10,* 1–29. https://doi.org/10.1371/journal.pone.0124609.

Jetten, J., Haslam, C., & Haslam, S. A. (2012). *The social cure: Identity, health and well-being*. New York: Psychology Press.

Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1994). *The new circles of learning: Cooperation in the classroom and school*. Alexandria: Association for Supervision and Curriculum Development.

Johnson, M. D., Morgeson, F. P., & Hekman, D. R. (2012). Cognitive and affective identification: Exploring the links between different forms of social identification and personality with work attitudes and behavior. *Journal of Organizational Behavior, 33,* 1142–1167. https://doi.org/10.1002/job.1787.

Kirkcaldy, B., Furnham, A., & Siefen, G. (2004). The relationship between health efficacy, educational attainment, and well-being among 30 nations. *European Psychologist, 9,* 107–119. https://doi.org/10.1027/1016-9040.9.2.107.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Upper Saddle River: Prentice Hall Inc.

Lieberman, M. D. (2013). *Social: Why our brains are wired to connect*. Oxford: Oxford University Press.

Mahoney, J. L., & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? *Developmental Psychology, 33,* 241–253. https://doi.org/10.1037/0012-1649.33.2.241.

Marzano, R. J. (2009). *Classroom management that works-research based strategies for every teacher*. New Jersey: Pearson Education Inc.

Mavor, K. I., Platow, M. J., & Bizumic, B. (Eds.). (2017). *Self and social identity in educational contexts.* Abingdon: Routledge. https://doi.org/10.4324/9781315746913.

Michaelides, M. P. (2008). Emerging themes from early research on self-efficacy beliefs in school mathematics. *Electronic Journal of Research in Educational Psychology, 6,* 219–234. https://doi.org/10.25115/ejrep.v6i14.1264.

Moulton, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counselling Psychology, 38,* 30–38. https://doi.org/10.1037/0022-0167.38.1.30.

O'Keefe, P. A., Ben-Eliyahu, A., & Linnenbrink-Garcia, L. (2013). Shaping achievement goal orientations in a mastery structured environment and concomitant changes in related contingencies of self-worth. *Motivation and Emotion, 37,* 50–64. https://doi.org/10.1007/s11031-012-9293-6.

OECD (2017). *PISA 2015 results (Volume III): Students' well-being.* Paris: OECD Publishing. Retrieved from https://www.oecd.org/pisa/PISA-2015-Results-Students-Well-being-Volume-III-Overview.pdf.

Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research, 70,* 323–367. https://doi.org/10.3102/00346543070003323.

Osterman, K. F. (2002). Schools as communities for students. In G. Furman (Ed.), *Schools as community. From promise to practice* (pp. 167–195). Albany: State University of New York Press.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66,* 543–578. https://doi.org/10.3102/00346543066004543.

Pajares, F., & Schunk, D. H. (2001). Self-beliefs and school success: Self-efficacy, self-concept, and school achievement. In R. J. Riding & S. G. Rayner (Eds.), *International perspectives on individual differences: Self-perception* (Vol. 2, pp. 239–265). Westport: Ablex Publishing.

Postmes, T., Haslam, S. A., & Jans, L. (2013). A single-item measure of social identification: Reliability, validity and utility. *British Journal of Social Psychology, 52,* 597–617. https://doi.org/10.1111/bjso.12006.

Price, D. (2013). *Open: How we'll work, live and learn in the future*. England: Crux Publishing Ltd.

Ramsdal, G. H., Bergvik, S., & Wynn, R. (2018). Long-term dropout from school and work and mental health in young adults in Norway: A qualitative interview-based study. *Cogent Psychology, 5,* 1–16. https://doi.org/10.1080/23311908.2018.1455365.

Reynolds, K. J., Lee, E., Turner, I., Bromhead, D., & Subasic, E. (2017a). How does school climate impact academic achievement? An examination of social identity processes. *School Psychology International, 38,* 78–97. https://doi.org/10.1177/0143034316682295.

Reynolds, K. J., Subasic, E., Lee, E., & Bromhead, D. (2017b). School climate, social identity processes and school outcomes: Making the case for a group-level approach to understanding schools. In K. I. Mavor, M. J. Platow, & B. Bizumic (Eds.), *Self and social identity in educational contexts* (pp. 55–69). Abingdon: Routledge. https://doi.org/10.4324/9781315746913.

Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology, 88,* 408–422. https://doi.org/10.1037/0022-0663.88.3.408.

Rosenthal, R., & Jacobson, L. (1992). *Pygmalion in the classroom: Teacher expectation and pupils' intellectual development.* [Enl. Ed.] New York: Irvington Publishers, Inc.

Roseth, C. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive and individualistic goal structures. *Psychological Bulletin, 134,* 223–246. https://doi.org/10.1037/0033-2909.134.2.223.

Røysamb, E., Schwarzer, R., & Jerusalem, M. (1998). *Norwegian version of the general perceived self-efficacy scale.* Retrieved from http://userpage.fu-berlin.de/~health/norway.htm.

Sánchez, B., Colón, Y., & Esparza, P. (2005). The role of sense of school belonging and gender in the academic adjustment of Latino adolescents. *Journal of Youth and Adolescence, 34,* 619–628. https://doi.org/10.1007/s10964-005-8950-4.

Schunk, D. H. (1995). Self-efficacy and education and instruction. In J. E. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research, and application* (pp. 281–303). New York: Plenum Press. https://doi.org/10.1007/978-1-4419-6868-5_10.

Schunk, D. H., Meece, J. L., & Pintrich, P. R. (2013). *Motivation in education: Theory, research and applications* (4th ed.). Harlow: Pearson Education Limited.

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's Portfolio. Causal and control beliefs* (pp. 35–37). Windsor: NFER-NELSON.

Scott, C. L. (2015). *The futures of learning 1: Why must learning content and methods change in the 21st century?* (Education Research and Foresight Working Papers Series, No. 13). Paris: UNESCO. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000234807.

Sewell, A., & St. George, A. (2000). Developing efficacy beliefs in the classroom. *Journal of Educational Enquiry, 1,* 58–71.

Sønderlund, A. L., Morton, T. A., & Ryan, M. K. (2017). Multiple group membership and well-being: Is there always strength in numbers? *Frontiers in Psychology, 8,* 1–20. https://doi.org/10.3389/fpsyg.2017.01038.

Stacey, R. D. (2003). *Complexity and group processes: A radically social understanding of individuals*. New York: Brunner-Routledge. https://doi.org/10.4324/9780203695517.

Stacey, R. D. (2007). The challenge of human interdependence: Consequences for thinking about the day to day practice of management in organizations. *European Business Review, 19,* 292–302. https://doi.org/10.1108/09696470310497159.

Steffens, N. K., Haslam, S. A., Reicher, S. D., Platow, M. J., Fransen, K., Yang, J., et al. (2014). Leadership as social identity management: Introducing the identity leadership inventory (ILI) to assess and validate a four-dimensional model. *The Leadership Quarterly, 25,* 1001–1024. https://doi.org/10.1016/j.leaqua.2014.05.002.

Tajfel, H. (1972). La catégorisation sociale. [Social categorization]. In S. Moscovici (Ed.), *Introduction a la Psychologie Sociale* (Vol. 1, pp. 272–302). Paris: Larousse.

Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey: Brooks/Cole.

The Norwegian Education Act (1998, Sect. 3-1) (LOV-1998-07-17-61). Oslo: Kunnskapsdepartementet. Retrieved from https://www.regjeringen.no/contentassets/b3b9e92cce6742c39581b661a019e504/education-act-norway-with-amendments-entered-2014-2.pdf.

The Norwegian Personal Data Act (2000, Sect. 2) (LOV-2000-04-14-31). Oslo: Justis- og beredskapsdepartementet. Retrieved from https://app.uio.no/ub/ujur/oversatte-lover/data/lov-20000414-031-eng.pdf.

Turner, J. C. (1987). A self-categorization theory. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory* (pp. 42–67). Oxford: Blackwell.

UNESCO. (2016). *Happy schools! A framework for learner well-being in the Asia-Pacific.* (TH/IQE/16/006-1000). Bangkok: UNESCO Bangkok Office. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000244140.

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research., 78,* 751–796. https://doi.org/10.3102/0034654308321456.

Vaillant, G. E. (2012). *Triumphs of experience: The men of the Harvard grant study*. Cambridge: Belknap Press of Harvard University Press. https://doi.org/10.4159/harvard.9780674067424.

van Dick, R., Lemoine, J. E., Steffens, N. K., Kerschreiter, R., Akfirat, S. A., Avanzi, L., et al. (2018). Identity leadership going global: Validation of the Identity Leadership Inventory across 20 countries. *Journal of Occupational and Organizational Psychology, 91,* 697–728. https://doi.org/10.1111/joop.12223.

Vieno, A., Santinello, M., Pastore, M., & Perkins, D. D. (2007). Social support, sense of community in school, and self-efficacy as resources during early adolescence: An integrative model. *American Journal of Community Psychology, 39,* 177–190. https://doi.org/10.1007/s10464-007-9095-2.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York: Cambridge University Press. https://doi.org/10.1017/CBO9780511803932.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *A guide to managing knowledge: Cultivating communities of practice*. Boston: Harvard Business School Press.

White, J. (2007). Wellbeing and education: Issues of culture and authority. *Journal of Philosophy of Education, 41,* 17–28. https://doi.org/10.1111/j.1467-9752.2007.00540.x.

Whyte, W. F. (1993). *Street corner society: The social structure of an Italian slum* (4th ed.). Chicago: The University of Chicago Press. https://doi.org/10.7208/chicago/9780226922669.001.0001.

Wingspread Declaration on School Connections. (2004). *Journal of School Health, 74,* 233–234. https://doi.org/10.1111/j.1746-1561.2004.tb08279.x.

Zick, A., Küpper, B., & Hövermann, A. (2011). *Intolerance, prejudice and discrimination: A European report*. Berlin: Friedrich-Ebert-Stiftung.

Zick, A., Wolf, C., Küpper, B., Davidov, E., Schmidt, P., & Heitmeyer, W. (2008). The syndrome of group-focused enmity: The interrelation of prejudices tested with multiple cross-sectional and panel data. *Journal of Social Issues, 64,* 363–383. https://doi.org/10.1111/j.1540-4560.2008.00566.x.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology, 81,* 329–339. https://doi.org/10.1037/0022-0663.81.3.329.

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