

EXPLORING STUDENTS' WELL-BEING BY TAKING A VARIETY OF LOOKS INTO THE CLASSROOM

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Abstract: The article first gives an introduction to well-being in school. Second, it argues for different perspectives to explore students' well-being in the classroom, that is, a more general approach of well-being in school and a more specific approach of students' individual well-being. Both views will be introduced and discussed in terms of their psychological and educational relevance. The empirical part of this article is based on a quantitative study including 2014 students of secondary I level schools¹ and on a qualitative study consisting of 1358 emotional episodes reported by 58 adolescent students three times for two weeks. The results illustrate the potential of a multi-faceted approach to the affective aspects of school life by combining different views of student well-being.

Key words: Emotion, School, Well-being.

INTRODUCTION

Research, so far, has concentrated on adults' (Diener, 1984, 2000; Mayring, 1991; Ryan & Deci, 2001; Veenhoven, 1991) rather than on students' well-being. Although there is some research in developmental psychology on this topic (Grob, Wearing, Little, & Wanner, 1996), well-being in school has been primarily stressed by educational psychology (e.g., Jerusalem & Mittag, 1999). Educational psychology, however, has an ambivalent attitude towards well-being. This can best be illustrated by the title of Boekaerts' (1993) article entitled "Being concerned with well-being

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and with learning". The message that lies behind this title is threefold: (1) Well-being and learning are both important aspects of school life. (2) The development of well-being and the development of learning involve different processes and, thus, have to be supported differently. (3) Some worry about learning when focusing on student well-being; others worry about well-being when students' learning is the main point of interest.

What is the role of well-being in school? Some argue that student well-being is a value in itself (e.g., Helmke, 1993), while others try to find out more about the relationship of well-being with learning and achievement. Like many other aspects of psychological functioning, well-being can affect students' learning process and learning outcomes in various ways. There is increasing empirical evidence that well-being is intertwined with various factors that contribute to effective learning (see, e.g., Mayring & von Rhöneck, 2003). Although well-being might not directly enhance students' achievement, it is nevertheless an important criterion for a positive atmosphere in school. A positive school atmosphere is necessary for students' learning – especially in highly structured, achievement-oriented, non-optional learning contexts like school (Hascher, 2004).

Well-being in school

There are not as many approaches to well-being in school as to general well-being (for an overview on general well-being see Diener & Lucas, 2000); nevertheless, the existing approaches in student well-being seem to converge to the following point (see Hascher, 2003, 2004): Enjoyment in school is a core emotion of well-being in school. Empirical studies of students' well-being often use only single items to ask them if they feel well in a learning situation, in a lesson, or in school in general. However, in order to define and assess more than just a single affective state, such as enjoyment, it is necessary to develop a concept of well-being in school that corresponds to the theoretical construct of general well-being. More specifically, well-being is a concept consisting of emotional *and* cognitive components, *both* positive and negative ones. Well-being in school in our approach can be defined as follows (Hascher, 2003, p. 129): «Students' well-being in school is a quality of experience characterized by the dominance of positive feelings and cognitions towards school, persons in school and the school context in comparison to negative feelings and cognitions towards school life. Well-being in school represents subjective, emo-

tional and cognitive evaluations of school reality and can be seen as imbalance of positive and negative aspects in favor of positive aspects.»

Thus defined, students' well-being is a psychological construct representing a holistic quality of students' subjective experience in school with cognitive and emotional elements. It can be conceived as a state or as a trait and can vary as regards duration and intensity. In line with dimensional concepts of general well-being, students' well-being is assumed to consist of a number of dimensions. Six dimensions are crucial for students' well-being in school (Grob et al., 1996; Ryff & Keyes, 1995): (1) Positive attitudes and emotions towards school in general. (2) Enjoyment in school. (3) Positive academic self-concept. (4) Absence of worries about school. (5) Absence of physical complaints in school. (6) Absence of social problems in school.

Defined in this way, students' well-being in school represents affective (emotions in school) as well as cognitive (attitudes towards school) dimensions. It integrates both positive (enjoyment in school) and negative (worries about school) aspects of school life. Furthermore, it takes specific aspects of school life into account (e.g., social interaction, physical complaints, and academic self-concept).

Aims of the studies

How can well-being in school be assessed? For methodological development it is generally helpful to refer to existing theories and instruments that are available. Using this information as a basis, instruments of general well-being can serve as a guideline and can contribute ideas for the assessment of student well-being. Nevertheless, they are not a satisfying substitute. As some educational research on well-being and satisfaction in school has shown (Eder, 1995; Fend, 1997; Neuenschwander & Hascher, 2003) students' emotions and attitudes are context-sensitive and domain-specific. This means that feeling happy and enjoying life in general does not necessarily entail that a student is also feeling well at school. Similarly, students' well-being in school does not imply that students feel well in general. An early definition and operationalization of well-being was proposed by Bradburn (1969). He analyzed well-being in terms of its correlates, such as negative and positive affect. He designed the so called "Affect-Balance-Scale" (see also Costa & McCrae, 1980). Over a certain period of time participants have to document how they feel. A dominance of positive affect represents high well-being, while frequent negative affect

is interpreted as low well-being. One main problem arising with this kind of well-being measurement, however, is that it remains unclear *why* people feel happy or sad, angry or relieved, and what the feelings *mean* to them. The simple reporting of positive and negative feelings neglects the fact that affects may vary in intensity, duration and in subjective relevance. Furthermore, it ignores the fact that emotions have different causes. This might lead to an over- or to an underestimation of the importance of the specific emotions experienced. For this reason one aim of this article is to present a questionnaire for measuring students' well-being in school that was tested in a number of countries for its validity.

A second aim of this article is to present a study that investigated the relationship between students' well-being in school and their everyday emotions at school. This was done with a qualitative study examining situations in school that evoke specific emotions; these emotions may be related to students' well-being in school. From an educational point of view it is important to know the subjective functions of students' emotions, because each single student's emotional episodes and emotions experienced have personal relevance. Consider a situation where a teacher shows a negative behavior towards the students like a cynical comment on an incorrect answer. Needless to say, all students dislike such behavior but some do not realize it, some find it less problematic, some get angry about it and some feel aggression against the teacher, while others see themselves as rejected by the teacher. The more a student attributes negative teacher behavior to herself/himself, the more the situation and emotions might be harmful for her/him. In trying to answer the question of how daily emotional experiences in school affect well-being in school we specified some characteristics of emotional experiences that we deemed to be of importance for students' well-being in school. Based on theoretical considerations from the psychology of emotion (for an overview see Lewis & Haviland-Jones, 2000), the following features were assumed to be crucial for students' well-being in school: intensity, frequency, and duration. The prediction was that emotions have an impact on well-being if they are intense, frequent, and if they last long.

To sum up, in this article we present two studies with the following aims: (1) to present a questionnaire designed to measure adolescent student well-being in school (Study 1); (2) to find out more about students' actual emotions at school and to examine if their everyday emotions are related to their reported well-being in school (Study 2).

The hypotheses were the following: Student well-being is a multi-dimensional construct and this is true for countries that share similar educational system (Hypothesis 1). Students' everyday emotions at school are related to the reported well-being, particularly if the emotions are intense, frequent, and last long (Hypothesis 2).

STUDY 1

Study 1 was performed in order to measure student well-being in school. For this purpose we constructed the Student Well-Being-Questionnaire (SWBQ) based on a questionnaire developed by Grob et al. (1996) for assessing adolescents' well-being in general (see also Hascher, 2003).

Method

Sample - Procedure. The participants of Study 1 were 2014 adolescents from four European countries. During March and April 1998 four samples were collected from urban settings (i.e., cities with a population of about 100,000) in Germany (GER), the Czech Republic (CZR), the Netherlands (NED), and German-speaking Switzerland (CH1). An additional Swiss sample (CH2) was collected from a rural school during May 1999. Table 1 lists the number of participants per gender and age (age 12-13, 14, 15-17); their mean age was 14.19 ($SD = 1.03$, $n = 1992$, while 22 students did not indicate their age). All students attended regular schools. To control for academic level in each sample, students from three different educational levels were represented: basic, advanced, and superior level. The data were collected by a research team and the study was completed during regular school-time. Teachers did not attend the data collection.

Instruments. Two questionnaires were used in the study.

A. Student Well-Being-Questionnaire (SWBQ). The items of the SWBQ address situations in school and represent the six crucial dimensions of well-being mentioned previously. For international use the SWBQ was validated in 4 European countries, namely Germany, Czech Republic, the Netherlands, and the German-speaking Switzerland. It was translated into Dutch and Czech by bilingual native speakers and checked for validity in pilot studies (Hascher, 2002).

Factor analyses of SWBQ were performed for each of the five samples

Table 1. Number of participants in Study 1 by sample, gender, age, school level, and grade (N = 2014)

	CH1 (n = 394)	CH2 (n = 391)	GER (n = 364)	NED (n = 445)	CZR (n = 420)
Gender					
Female	193	199	182	249	243
Male	201	192	182	196	177
Age					
-13 years	92	147	78	99	135
14 years	114	127	114	200	150
15+ years	184	114	172	140	125
School level					
Basic	118	191	116	151	147
Advanced	146	137	127	174	126
Superior	130	63	121	120	147
Grade					
7	158	129	124	178	134
8	126	137	124	178	156
9	110	125	116	89	130

Note. CH1 = Switzerland, urban schools; CH2 = Switzerland, rural school; GER = Germany; NED = The Netherlands; CZR = Czech Republic.

separately, with an explained variance of 52.66 % and of 52.77 % for the two Swiss samples, 50.04 % for the Dutch, 50.98 % for the German and 49.12 % for the Czech sample. The factor analyses and item analyses confirmed the six scales in all samples (see Table 2). Internal consistency reliability was mostly Cronbach's alpha > .70 (min α = .65, max α = .84; see Table 3). The inter-correlations between the six dimensions of student well-being ranged from r = .00 to r = .52, showing the highest correlations for worries about school and physical complaints.

Each scale of SWBQ consists of five to seven items. Example items are "I like to go to school" for the scale Positive Attitudes Towards School (PAS, 7 items); "During the last few weeks I have had the feeling of doing important things in school" for the scale Enjoyment In School (EIS, 5 items); "I don't have problems mastering the tasks in school" for the scale Positive Academic Self-concept (PASC, 5 items); "During the last few weeks I didn't have to worry about handling the school reality" for the scale Worries In School (WIS, 5 items); "During the last few weeks I never had headache in school" for the scale Physical Complaints In School" (PCS, 6 items); "I had no problems with my classmates during the last few weeks" for the scale Social Problems In School (SPS, 5 items). Students answered the questionnaire on a 6-point-Likert-scale from 1 (never/ not important/ not right) to 6 (very frequently/ very important/ absolutely right). High score represents high student well-being.

Table 2. Factor structure of the Student Well-Being Questionnaire (SWBQ) in all samples

Items / Samples	Factor loadings				
	CH1	CH 2	GER	NED	CZR
Factor: Positive Attitudes Towards School					
I like to go to school..	.647	.675	.751	.708	.744
School makes sense to me.	.541	.688	.728	.539	.761
Whatever will happen, school is a good thing.	.492	.633	.708	.608	.709
I'm wasting my time in school.	.632	.627	.619	.645	-
I like what we learn in school.	.591	.679	.577	.563	.666
School is getting on my nerves.	.642	.574	.574	.699	-
I feel well in school.	.448	.534	.682	.508	.731
School is boring.	.630	.635	.482	.696	.513
Factor: Physical Complaints In School (PIC)					
During the last few weeks did it happen to you that you...					
suffered from heartache because of school?	.669	.668	.693	.755¹	.631
lack appetite because of achievement-stress in school?	.736	.654	.678	.713¹	.637
suddenly felt hot when a teacher asked you a question?	.637	.608	.675	.588¹	.632
felt dizzy during lessons??	.543	.704	.704	.677¹	.529
suffered from pain in the stomach because of school?	.656	.576	.586	.526¹	.596
suffered from headache during school time?	.664	.631	.643	.659¹	.517
Factor: Positive Academic Self-Concept (PASC)					
I don't have problems to meet the standards in school.	.729	.672	.741	.753	.732
I can solve learning problems easily.	.734	.721	.766	.709	.693
I'm able to achieve as good as most of my classmates.	.761	.615	.682	.596	.646
I'm satisfied about the development of my academic goals.	.651	.606	.467	.711	.649
I'm optimistic about the next school years / about the time after school.	.575	.654	.467	.696	.454
Factor: Social Problems In School (SPS)					
During the last few weeks did it happen to you that you...					
had problems with your classmates?	.807	.731	.768	.792	.767
had problems with single classmates?	.713	.741	.804	.705	.753
felt like an outsider in your classroom?	.781	.611	.690	.691	.718
had problems with a friend in school?	.614	.712	.721	.695	.598
couldn't fall asleep because of problems with a classmate?	.607	.675	.609	.652	.632
Factor: Worries In School (WIS)					
During the last few weeks did you worry about...					
handling the school reality?	.696	.716	.763	-	.558²
the next school years / about the time after school?	.711	.620	.697	-	.576²
your grades?	.699	.616	.761	-	.599²
problems with teachers?	.528	.469	.394	-	.424²
handling the amount of homework?	.530	.615	-	-	.537²
Factor: Enjoyment In School (EIS)					
During the last few weeks did it happen to you that...					
you have had the feeling of doing important things in school?	.711	.671	.684	.647	.604
classmates listened to your opinion about an argument?	.679	.658	.735	.529	
you were happy because of acceptance within of your classmates?	.747	.620	.744	.663	.628
a teacher encouraged you?	.497	.485	.602	.697	.612
you were happy about a good grade?	-	.487	.430	.520	.475
% of explained variance	52.66	52.77	50.98	51.04	49.12

Note. CH1 = Switzerland, urban schools; CH2 = Switzerland, rural school; GER = Germany; NED = The Netherlands; CZR = Czech Republic.

¹The items in bold loaded two factors in the data of the Dutch sample. ²The items in bold loaded together with the items of physical complaints one factor in the data of the Czech sample.

Table 3. Cronbach's α of each SWBQ scale for each sample and total sample

SWBQ scale	Total samle		CH1		CH2		GER		NED		CZR	
	Number of items	α	Number of items	α	Number of items	α	Number of items	α	Number of items	α	Number of items	α
PAS	7	.80	7	.78	7	.80	7	.82	7	.80	6	.81
EIS	5	.67	5	.69	5	.67	5	.71	5	.72	4	.65
PASC	5	.79	5	.84	5	.82	5	.72	5	.83	5	.70
WIS	5	.72	5	.79	5	.73	5	.72	5	.71	5	.70
PCS	6	.77	6	.78	6	.77	6	.78	6	.75	6	.77
SPS	5	.79	5	.79	5	.79	5	.80	5	.77	5	.78

Note. CH1 = Switzerland, urban schools; CH2 = Switzerland, rural school; GER = Germany; NED = The Netherlands; CZR = Czech Republic. 1 = low well-being, 6 = high well-being; PAS = Positive Attitudes Towards School; EIS = Enjoyment In School; PASC = Positive Academic Self-Concept; WIS = Worries In School; PIC = Physical Complaints In School; SPS = Social Problems In School.

B. Anxiety Questionnaire. For one Swiss sample (CH2, $n = 391$) the correlations between students' well-being and school anxiety were tested by using the Anxiety Questionnaire developed by Jacobs and Strittmatter (1979). This was done as a test of concurrent validity since school anxiety was expected to correlate negatively mainly with school enjoyment and absence of worries in school. The questionnaire consists of 14 items about anxiety-evoking situations during teaching and testing. Example items are: "If the teacher is going to select a student to solve a task at the blackboard I hope that she/he won't select me"; "As soon as the teacher hands out the test I feel my heart throbbing", or "I think I could perform better in school if I felt less anxious in school". Students rated their anxiety on a 6-point-Likert-scale, with a low number indicating low anxiety.

Table 4. Factor structure of the Anxiety Questionnaire

Items	Factor 1 ($\alpha = .86$)	Factor 2 ($\alpha = .82$)
Sometimes I'm afraid that my classmates will laugh at me.	.737	
If the teacher wants a student to work at the blackboard I hope that it won't be me.	.736	
If I hear someone saying my name in the class, I immediately feel bad.	.685	
I often doubt if I do the right things.	.675	
I'm getting nervous if I have to speak to others.	.673	
If the teacher asks me a question I'm always afraid of giving a wrong answer.	.665	
Sometimes I think that my classmates are able to do everything better than me.	.648	
I easily lose my confidence if something goes wrong in school.	.558	
If we have to write a test I always get a strange feeling in my stomach.		.834
My heart beats faster as soon as we get the test sheets.		.825
During a test I'm always afraid of getting poor grades.		.763
During a test I forget things I have learned carefully.		.640
Without my anxiety I could be more successful in school.		.543
There are many things in school which may frighten you.		.501

Note. The factor intercorrelation was $r = -.59$.

Factor analysis revealed a two-factor solution with an explained variance of 57.23% (see Table 4), differentiating between General School Anxiety (Factor 1) and Test Anxiety (Factor 2). Internal consistency was Cronbach's $\alpha = .86$ for Factor 1 and $\alpha = .82$ for Factor 2, respectively.

Results

In Table 5 means and standard deviations for each scale of the SWBQ and for each sample are presented.

Table 5. Means (and standard deviations) for each SWBQ scale and for each sample (N = 2014)

SWBQ scale	CH1 (n = 394)	CH2 (n = 391)	GER (n = 364)	NED (n = 445)	CZR (n = 420)
PAS	4.58 (.72)	4.56 (.78)	4.09 (.96)	4.16 (.91)	4.45 (.82)
EIS	3.77 (.95)	3.61 (.88)	3.47 (1.01)	3.80 (.93)	3.91 (.94)
PASC	4.32 (.96)	4.23 (.91)	3.91 (.94)	4.38 (.96)	4.08 (.88)
WIS	4.04 (1.20)	4.06 (1.05)	3.49 (1.10)	3.92 (1.11)	3.48 (1.05)
PCS	5.34 (.81)	5.38 (.79)	5.05 (1.03)	5.17 (.91)	4.61 (1.03)
SPS	5.18 (.91)	5.15 (.93)	5.04 (1.03)	5.29 (.88)	4.78 (1.06)

Note. CH1 = Switzerland, urban schools; CH2 = Switzerland, rural school; GER = Germany; NED = The Netherlands; CZR = Czech Republic. 1 = low well-being, 6 = high well-being; PAS = Positive Attitudes towards School; EIS = Enjoyment In School; PASC = Positive Academic Self-Concept; WIS = Worries In School; PCS = Physical Complaints in School; SPS = Social Problems in School.

Analyses of variances for each scale of SWBQ and the 5 samples with the latter factor as independent variable were performed. The main effect of sample was significant in the following cases: For PAS, $F(4, 2000) = 28.96, p < .01, \eta^2 = .06$; for EIS, $F(4, 1995) = 12.81, p < .01, \eta^2 = .03$; for PASC, $F(4, 1987) = 15.99, p < .01, \eta^2 = .03$; for WIS, $F(4, 1994) = 27.29, p < .01, \eta^2 = .06$; for PCS, $F(4, 1994) = 45.78, p < .01, \eta^2 = .09$; for SPS, $F(4, 1990) = 16.83, p < .01, \eta^2 = .03$. Students from the Czech Republic reported more physical complaints and more social problems than all other samples (all $p < .01$) and more worries in school in comparison to Dutch and Swiss students but were higher in enjoyment in school compared to the sample from Germany and the urban Swiss sample (both $ps < .01$). Students from Germany and also from the Netherlands were relatively low in positive attitudes towards school compared to the other samples (all $ps < .01$). Yet, overall only a small group of students reported physical complaints or social problems in school and the majority of students had quite positive attitudes towards school. On the other hand, worries in school were a main concern for most students as well as lack of enjoyment in school. In general, most students showed sat-

isfactory overall well-being rates, as indicated by mean scores, $M > 4$, in at least four of the six scales.

Nevertheless it should not be overlooked that some students indicated severe problems in school and had low well-being. Specifically, about 6% of all students ($n = 113$) showed low scores in terms of positive dimensions of SWBQ (average of the scales PAS, EIS, PASC < 3.00) and about 10% ($n = 177$) showed high scores in terms of negative dimensions of SWBQ (average of the scales WIS, SPS, PCS, $M < 3.5$). Only 13 girls and 6 boys had a combination of low scores on the positive dimensions and high scores on the negative dimensions of SWBQ. These students can be defined as "at risk" due to the lack of an important emotional and social basis for succeeding in school.

No systematic gender differences were found. Only in three of the five samples, the two Swiss samples and the sample from Czech schools, girls appeared to have significantly more physical complaints than boys: Sample CH1, $t(390) = 3.45, p < .01$; Sample CH2, $t(388) = 3.41, p < .01$; Sample CZR, $t(417) = 5.15, p < .01$. In terms of age, school years and school level no significant differences were found.

Student well-being and school anxiety. In a next step, the relationship between well-being and school anxiety was examined using the data of one Swiss sample (CH2, $n = 391$). The means of school anxiety score were moderate, $M = 3.00$ ($SD = 1.17$) for general school anxiety, $M = 2.86$ ($SD = 1.28$) for test anxiety, with 9% of the students suffering from intense school anxiety ($M > 4.50$) and only 12% suffering from intense test anxiety ($M > 4.50$). All correlations with the scales of the SWBQ were negative and significant. For both anxiety factors the strongest correlations were found with the following scales: PACS, $r = -.38$ for general school anxiety, $r = -.36$ for test anxiety; WIS, $r = -.32$ for general school anxiety, $r = -.41$ for test anxiety; and PCS, $r = -.38$ for general school anxiety, $r = -.44$ for test anxiety. Weaker correlations existed between both anxiety factors and the following scales: PAS, $r = -.19$ for general school anxiety, $r = -.15$ for test anxiety; EIS, $r = -.20$ for general school anxiety, $r = -.18$ for test anxiety; and SPS, $r = -.29$ for general school anxiety, $r = -.20$ for test anxiety.

Conclusion

It was hypothesized that student well-being is a multi-dimensional construct and that this is true for countries that share similar educational system (Hy-

pothesis 1). Three findings confirmed the hypothesis: First, factor analyses produced a six-factor solution for all five samples. Second, students' self-reports to the six dimensions varied, and a differentiated view upon the single dimensions uncovered significant differences across samples and gender. Third, although student well-being showed generally negative correlations with student anxiety, the correlation coefficients differed. Thus, the assumption of a multi-dimensional concept of well-being in school was confirmed and the single dimensions of students' well-being could be used separately.

STUDY 2

To identify situations that raise emotional reactions to students in school a qualitative study, Study 2 was performed.

Method

We used semi-structured diaries as a complementary methodological approach to the quantitative Study 1, so that we could gain deeper insight into students' subjective interpretations of school life. This can help explain inter- and intra-individual differences in students. The diaries were based on former studies on children's emotions (e.g., Hascher, 1994).

Sample - Procedure. The participants were 58 Swiss adolescent students from 9 classrooms of one school (34 girls, 24 boys; grade 7-9; school level: basic, advanced, superior). The classrooms were selected in terms of school level. The students had participated in the quantitative study as well and had reported to be interested in writing daily diaries about their emotions in school. They did not differ in terms of their general well-being pattern as compared to the other students (Figure 1).

For a period of two weeks, three times per school year, the students were asked to fill in daily diaries by selecting one subjectively important emotional experience every day and to report the situation in which it had occurred, the emotions evoked, as well as their causes and consequences. Specifically, they answered the following questions in their own words: (1) What happened today? (2) How did you feel in this situation? (3) Why did you feel like this? (4) What were your reactions to the situation? (5) What did you learn from it? A total of 1358 emotional episodes were reported. Of them, 172 had to

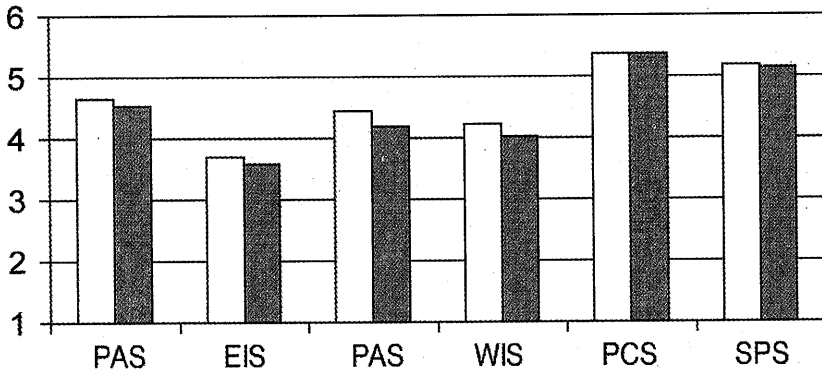


Figure 1. Student well-being: Diary writers ($n = 58$) and others ($n = 333$).

Note. Well-being scores of students who wrote daily diaries (left bar) in comparison to all other students in the selected school who did not write diaries (right bar); (min = 1; max = 6); PAS = Positive Attitudes Towards School; EIS = Enjoyment In School; PASC = Positive Academic Self-Concept; WIS = Worries In School; PCS = Physical Complaints In School; SPS = Social Problems In School.

be excluded from further analyses because of lack of relevance to school (e.g., reports about leisure activity).

Additionally, the students rated the frequency, the intensity, and the duration of the reported emotions on a 4-point Likert scale ranging from (1) very seldom / very weak / very short lasting to (4) = very often / very strong / very long lasting. The students knew that their data were not available to the teachers but would serve to give the researcher insight into their school reality. We explicitly asked students to report emotional situations that were of particular relevance for them and/or situations that should be considered when describing their school life.

Analysis. According to their meaning, the reported 1186 emotions were grouped into positive (pleasant emotions like feeling good), negative (unpleasant emotions like feeling bad), ambivalent emotions (e.g., feeling good and bad at the same time), and indifferent (e.g., description of thoughts and evaluations). For the causes of emotions a two step content analysis was performed. First, all reported causes of emotions were categorized by a bottom-up method for inductive qualitative data analysis by two raters (inter-rater reliability: 84%). The main criteria for categorization were: (1) situations concerning teaching and learning with 20 sub-categories (e.g., the quality of

teaching, the relationship to teachers, stress, the learning process, the homework, tests); (2) situations addressing school as an institution of learning and education with five sub-categories (e.g., the actual time-table, substitute teachers, special school events); (3) other situations, besides teaching and school, with three sub-categories (a personal situation, social contact with friends, doing sports).

Second, the situations associated with strong emotions (in terms of intensity and duration) were categorized in a top down manner in line with Deci and Ryan's theory of self-determination (cf. Ryan & Deci, 2000), again by two raters (inter-rater reliability: 91%). Deci and Ryan postulated that the fulfillment of three psychological basic needs is important for the development of well-being: autonomy, feelings of competence and social integration. According to this approach, the emotional episodes were classified into three categories: (a) examples where students reported missing or being allowed autonomy, (b) situations where students referred to their feelings of competence/achievement or lack of competence, and (c) episodes that reflected students feeling integrated or lacking social integration. For the specific school context two more categories had to be added: (d) strong emotions had also been associated with appreciation by others and (e) by teachers' fair or unfair behavior towards students.

Results

Altogether more negative than positive emotions were reported: 49.53% negative, 36.91% positive, 5.28% ambivalent, and 9.38% indifferent emotions. Experiencing negative emotions meant for the students feeling angry, ashamed, awful, bad, miserable, bored, empty, mad, stressed. Positive feelings were described as feeling accepted, fit, good, healthy, interested, proud, and relaxed. Indifferent emotions were described as "I don't care", unfeeling, or feeling middle, not much, normal, as usual. Ambivalent emotions were described as feeling astonished, funny, at work, "I found it cool" (see Table 6). As found in prior studies (Hascher, 1994), students' vocabulary for describing negative emotions was much more elaborate than for positive emotions. Furthermore, students reported emotions of high intensity more often than low intensity ones, whereas rarely and frequently occurring emotions were balanced.

There was a wide range of inter-individual variation ranging from positive situations only to a balance of positive and negative examples, and to no

Table 6. Systematic overview of the emotions reported in Study 2 by the students in their diaries (N = 1186)

	Positive (n = 433)		Negative (n = 581)		Indifferent (n = 110)		Ambivalent (n = 62)	
	Frequent	Rare	Frequent	Rare	Frequent	Rare	Frequent	Rare
Intensity								
Intense	143	175	219	193	22	6	11	25
Weak	28	87	50	119	34	48	7	19
Total	171	262	269	312	56	54	18	44

single positive emotional episode. In order to compare the well-being of the diary-writers we allocated the students to three groups for an analysis of variance: (a) students who reported primarily positive emotions ($n = 10$), (b) students with about equal positive and negative emotions ($n = 12$), and (c) students with a dominance of negative emotions ($n = 30$). Students with many negative emotions scored lower on academic self-concept, reported more physical complaints and worries in school and showed their attitude towards school to be less positive than the other two groups. However, the differences did not reach statistical significance: for PAS, $F(2, 49) = 1.50$, $p = .23$, $\eta^2 = .06$; for PASC, $F(2, 49) = 1.12$, $p = .34$, $\eta^2 = .05$; for WIS, $F(2, 49) = .44$, $p = .65$, $\eta^2 = .02$; for PCS, $F(2, 49) = .27$, $p = .77$, $\eta^2 = .01$.

The data revealed a great variety of situations that aroused emotions, while no systematic differences in terms of school level and classroom were found. Unprofessional classroom management by teachers as well as conflicts with teachers and with classmates proved to be the most relevant topics across all classrooms. A notable excerpt is the following:

Our teacher was sick and we had a substitute teacher. He wasn't able to handle us. I felt bad because our class took advantage of this. Those students who wanted to participate and learn during the lessons were disturbed.

Only for students in one classroom was one topic described repeatedly and in a common way: they complained about their school situation because of unprofessional and frequently changing substitute teachers:

Our new substitute teacher is a slowpoke. We are bored to death during his lessons. He spoils learning for all of us. We have to write a letter to the school principal to get rid of him.

Furthermore, one systematic grade effect was found. Students in Grade 9 were more often concerned with their future perspectives as they realized their regular school time and compulsory education were at an end and that a change in their educational program was nearing. For example, attempting to pass the exams for senior high school one student wrote:

Lots of my classmates were hoping with me that I would pass the final exams to go to High School. When I told them that I was accepted they all were happy about the positive results and congratulated me.

Table 7. Frequency of school situations with a potential impact on student well-being (N = 109)

	Positive emotions	Negative emotions	Total
Competence / Achievement	17	29	46
Social integration	6	13	19
Autonomy	11	4	15
Appreciation	1	13	14
Fairness	1	8	9
Other	--	6	6
Total	36	73	109

The focus on situations reporting powerful emotions led to the identification of 109 episodes, 55% of them addressing strong negative emotions, 31% strong positive, and 11% strong ambivalent or indifferent emotions. Due to methodological limitations no comparisons between groups in terms of differences in well-being could be calculated. Instead, the causes of these situations were analyzed in more detail (cf. Table 7).

One of the main findings was that competence/achievement was most frequently mentioned. It was associated with negative as well as positive emotions with a 2:1 - ratio of negative to positive emotions. The same relationship was found for the situations related to social integration in school. Whereas autonomy was primarily associated with positive emotions, lack of appreciation as well as lack of fairness was associated mainly with negative emotions.

Conclusion

It was hypothesized that students' everyday emotions at school are related to their well-being, particularly if the emotions are intense, frequent, and last long (Hypothesis 2). The findings were not clear about that. Although

the students reported a lot of relevant emotion episodes the daily emotions seem to touch student well-being only marginally. The indicators of practical significance give some hints about the relevance of daily emotional experience to students' positive attitudes towards school and to their positive academic self-concept but the results did not reach statistical significance. Thus, we can conclude that daily emotional experiences as state emotions have to be clearly differentiated from students' overall emotional impression of school as trait emotions.

GENERAL DISCUSSION

The aim of this article was to gain deeper insight into student well-being in school. To find out more about this issue two perspectives were taken. First, general well-being in school was assessed in 2014 adolescent students at secondary I level in a cross-sectional study performed in 4 European countries (Study 1). Second, 58 Swiss students reported their individual emotions in a qualitative study (Study 2).

One of the main findings of Study 1 was that students worry about school, especially about their grades, and that they do not enjoy school so much. Although this finding is hardly surprising it is worth asking about the reasons that lie behind it. There are several possible explanations. First, this finding might be age-specific. Students at secondary I level (age 13-16) are in a phase of transition. Gradually leaving the status of a child, they have to cope with challenging developmental tasks like detachment from their parents and integrating themselves into professional life. Most of them are aware of the power school grades have in our society and they also know that only successful high school performance can give them some guarantee of a successful start in working life or further education. Under this study pressure there is less opportunity to enjoy school – except for those students who usually succeed in school.

Second, students' worries may indicate that teachers are not supportive enough to enable each student to reach the school level. On the contrary, teachers may act in a biased way through teaching actions that divide the class into high, middle and low achievers.

Third, the findings may also represent a well-known but rarely discussed aspect of school culture resulting from a comparison between primary school and secondary education. School enjoyment is only accepted as a nec-

essary educational value for primary education. Teachers' roles differ significantly when teaching younger or older children. Usually, the older the students are, the less teaching is oriented towards students' needs for play and enjoyment and becomes more serious and focused. All these three interpretations may apply. Therefore, further empirical work, especially longitudinal research, is needed to explain students' worries about school, and more precisely, the lack of school enjoyment.

Nevertheless, students' individual perspectives assessed in the diary study (Study 2) can give some additional answers as they confirm the findings of Study 1. Specifically, there is a clear dominance of negative emotions, especially of frequent and intense negative emotions, over positive emotions in the reported situations. Not surprisingly students' vocabulary for negative emotions, at least in school, seems to be more differentiated. Most of them described their emotions in a precise way to let us know how they really felt about a certain situation. Some of the most widely reported emotions beyond 'bad' and 'not good' were 'miserable', 'angry' and 'bored'. A crucial point lies in the causes of students' emotions. Most frequently, students referred to the lack of feelings of competence or low achievement when they reported negative emotions in school. Describing these negative emotions as strong, long lasting, and often experienced, they indirectly offer an explanation for their worries and the lack of school enjoyment. Following Pekrun's taxonomy of learning emotions (Pekrun, Goetz, Titz, & Perry, 2002), students experience activating as well as de-activating negative emotions which can influence their motivation to learn and their learning process adversely. However, as the reported results could only provide limited insight into students' emotions and well-being in school, further research is needed to analyze the role of emotions and well-being in learning and succeeding in school.

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