

Chapter 9

Students' Academic Well-Being in Nordic Schools



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Abstract Students' learning is affected by multiple factors, and recent reviews have highlighted that teaching quality is more important for students' learning than several other factors. As schools play an essential role in supporting students' development of social and emotional skills, knowledge, and behaviours, academic well-being should be a focal point in students' education. This study aims to identify observable characteristics of classroom practice that might enhance students' perceptions of academic well-being and understand what characterises captivating teachers based on student reports. Data were collected by video recording lessons from 126 Nordic lower secondary classrooms (Grade 8) in language arts, social science education, and mathematics, and students from these classrooms completed the Tripod Student Perceptions Survey (Ferguson, 2012). We use the students' answers, particularly for the factor Captivate, as a measure of students' academic well-being and explore the bivariate associations between well-being and observed aspects of teaching. The findings suggest that students' sense of academic well-being depends on their teacher's ability to ensure an orderly classroom where time is spent on relevant learning activities and on their teacher's propensity to engage in actions that directly help them understand "difficult stuff" through definitions of key academic concepts.

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9.1 Introduction

A student's learning is affected by multiple factors at the student, classroom, school, and system levels (Hatch, 2021; Muijs et al., 2014). However, recent reviews have highlighted that the classroom level, or more precisely, teaching quality, is more important for student learning than several other factors, including socioeconomic background, class size, or the teacher's years of experience and formal training (Hanushek et al., 2014; Hattie, 2009). However, it is debatable what counts as teaching quality and how it can be recognised or measured. Ferguson (2012) suggested that the highest-achieving classrooms are respectful and orderly environments, with students who stay busy and learn to correct their mistakes from a teacher who explains difficult things clearly.

Biesta (2022) contributed to the complex discussion on quality by exploring the relationship between school and society and asking what kind of society the school actually needs, instead of asking the more common question of what kind of school society may need. According to Biesta (2022), the problematic aspect of quality is related to the various competing definitions of what quality is and what counts as quality. To put it simply, the question about quality is the question about what good education is, and it should not be resolved by technical means that have been related to effectiveness and efficiency, which, according to Biesta (2022), is a common misunderstanding regarding the quality of education. Biesta's view can be seen as a critique of the Programme for International Student Assessment (PISA) approach, which relies on standardised measurements across countries, as it is debatable to what extent PISA can measure quality, because it does not capture societal and cultural elements that impact student learning or the interaction between students and teachers. However, there are some interesting features that so-called high-performing education systems have in common, and one of these features is that teachers in these systems invest not just in their students' academic success but also in their well-being (Schleicher, 2018).

Student well-being is normally not included in discussions about the dimensions of teaching quality. Bell et al. (2019) summarised nine dimensions of teaching quality, of which two indirectly referred to well-being: *safe and positive classroom climate and involvement* and *motivation of students*. This leads us to the concept of academic well-being (Qvortrup, 2021), which is the topic of the present chapter. Among teachers, school leaders, and parents, student well-being is often seen as the most important issue. In Icelandic research, more than 60% of Icelandic students in Grades 7–10 ranked general well-being for all students as the issue that their school should place the greatest emphasis on. Professional staff and parents had similar opinions, as most of them agreed that the most important issue was promoting students' self-esteem (Björnsdóttir & Jónsdóttir, 2014). All groups ranked their academic achievement lower. These perspectives might relate to the idea that schools should balance academic demands with personal well-being and happiness. According to classical theories on hedonism, the goal of life is to pursue happiness (Ertina & Ibrahim, 2019), but does this refer to education as well? In recent years,

emphasis has been placed on students' well-being that might be related to the idea of happiness, and a new United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2024) document stated, "Without stimulating joyful school experiences, schools will not develop students who love to learn nor teachers who love to teach—and who feel happy to continue teaching and learning lifelong" (p. 11).

A research project studying "health and life skills" among eighth-grade students used the Tripod Survey in 2022 (Brevik et al., 2023). The researchers focused particularly on the survey domains Care and Confer, which are defined as "personal support" on the Tripod homepage (*Guide to Tripod's 7Cs™ Framework*, 2023). The results showed that the students scored Care quite high, with an average of 3.79, which is slightly below the Norwegian average of 3.96 in the LISA Nordic study (see Chap. 3, this volume). In Norway, an annual survey about school climate among students showed an increase in bullying among seventh-grade students from 10% in 2022 to 13% in 2023. Furthermore, the results showed a decrease in the number of seventh-grade students who were motivated to learn. Still, 80% of these students reported that they enjoyed school (Regjeringen.no, 2024).

In a recent report on the implementation of mental health work, prevention, and support for children and young people in schools in Iceland (Stjórnarráðið, 2019), one of the action points was directed at a school environment that should support well-being in the sense that working conditions and the environment in schools need to support the professional work and well-being of children. This emphasis makes a connection between well-being, education, and the student environment. The abovementioned UNESCO (2024) document makes the following reference to O'Shaughnessy (2015, p. 32): "The old dichotomy that you can have happy children or successful children is wrong. A true education provides not one, or the other, but both" (p. 21).

How to measure and identify quality in teaching is controversial. Most studies tend to only look at one perspective—teachers or students—and not many studies have looked at what happens in classrooms and the relationship between different components (Blömeke et al., 2016). In this study, we combine students' perceptions of their education, measured by the Tripod Survey (Ferguson, 2012) and observational data obtained through the Protocol for Language Arts Teaching Observation [PLATO] (Grossman, 2019) to explore the relationship with student academic well-being.

The research questions are as follows:

RQ1: Which aspects of academic well-being are captured by students' self-reported sense of being captivated by their teacher?

RQ2: How is students' self-reported sense of being captivated associated with observed aspects of teaching quality?

To address these questions, we start by discussing theoretical perspectives on teaching quality and academic well-being, followed by methods and research design, results and discussion.

9.2 Theoretical Perspectives

9.2.1 *Teaching Quality*

There is broad agreement in the literature that teaching quality is the component that contributes most to student learning and the overall quality of the educational system (e.g., Kyriakides et al., 2009; Muijs et al., 2014; Seidel & Shavelson, 2007). However, how to look at and define teaching quality and how it should be measured and identified are debatable. The quality could rest on teachers' knowledge and skills, teaching practices (i.e., what happens in the classroom), or emotional and social relationships. It has become the accepted view that quality in teaching "is a complex, multidimensional phenomenon that is best studied through a variety of overlapping complementary strategies" (Croninger et al., 2012, p. 3). There is a growing consensus that teaching quality is characterised by instructional clarity, cognitive activation of students, adapted learning, student engagement, and a supportive classroom climate (Hayes et al., 2006; Klette et al., 2017; Klieme et al., 2009), which are all critical dimensions when measuring teaching quality (Klette, 2023). Blömeke et al. (2016) suggested the following definition: "high quality teaching consists of instructional practices leading to students being dedicated to cognitively active time on task" (p. 22).

9.2.2 *Students' Academic Well-Being*

Schools were originally academic institutions in which academic performance was the focus of their mission and quality (Biesta, 2019; Goodlad, 1984). A key discussion has been related to how school systems prepare their children as future citizens for the changing times (Organisation for Economic Co-operation and Development [OECD], 2017). Schools and the quality of schools have thus generally been measured locally and internationally based on cognitive elements associated with the academic curriculum, captured through standardised tests. In recent years, attention to students' well-being in relation to educational performance has gained more interest, especially regarding the relationship between well-being and academic performance. It has, for example, been argued that:

... the "results" of a school in terms of non-academic achievement should also be considered as educational objectives given that students with low levels of well-being are more likely to have a negative experience of school, as well as to suffer from depression and be involved in substance abuse or delinquency. (Govorova et al., 2020, p. 2)

Based on shared concerns of educational communities and families around the world, the latest trends aim to extend the focus of research on school effectiveness beyond simple cognitive performance and examine aspects such as well-being in the academic context (PISA, 2017). This emphasis goes along with general changes in how we see schools as institutions that define the extended role of schools by

helping students become socially and mentally functional persons in a democratic society in which they feel connected to people and included in their community (Ministry of Education, Science, and Culture, 2012). In the new National Norwegian Curriculum (LK20), students' well-being is linked to "life skills", which are interdisciplinary skills and a key competence in the new national curriculum. Life skills refer to the ability to understand and influence factors that are important for mastering one's own life. According to the Directorate for Education, "The school's interdisciplinary topic health and life skills shall give the pupils competence which promotes sound physical and mental health, and which provides opportunities for making responsible life choices" (Norwegian Directorate for Education and Training, 2023).

As schools play an essential role in supporting students' development of social and emotional skills, knowledge, and behaviours in a democratic society, well-being should be a focal point of education. What young people learn in the classroom helps them build resilience and set the pattern for how they will manage their physical and mental health throughout their lives. There is a direct link between well-being and academic achievement, and vice versa (Kaya & Erdem, 2021)—that is, well-being is a crucial prerequisite for achievement, and achievement is essential for well-being. For example, experiences of negative stress and helplessness reduce academic interest in the long run, although they do not necessarily decrease perseverance of effort in the short term. Moreover, students with a higher ability to cope and with determination towards their long-term goals are more active in class, more positive towards their studies, and show more perseverance (Obermeier et al., 2023). There is a lack of studies among lower and upper secondary school students' perspectives on well-being and education, but in one study among university students (Douwes et al., 2023), the focus was on how they define well-being and what they consider influencing factors. The study found that students related well-being and education to a balance between contexts and effort and achievement. Moreover, students mentioned the importance of getting grades and doing work in such a way that it does not ask too much mentally. As one student in the study said, "I know that I could have done more, but then I would have been less ok now" (Douwes et al., 2023, p. 7).

Anxiety and worries are feelings that many young people suffer from and are often related to performance in school. PISA (2017) findings show that, on average (across OECD countries), 59% of students reported that they often worry that taking a test will be difficult, and 66% reported that they worry about poor grades. Some 55% of students said that they are very anxious about a test, even if they are well prepared. In other words, adolescents feel threats to their well-being due to the pressure to succeed academically, and they experience that having agency and more power over their studies, key aspects of educational equity, increase their well-being. However, children and adolescents identify school and academic achievement as important for their future well-being and report feeling good when they are successful in subjects that they like or are ambitious towards (Drake et al., 2021).

The term well-being has roots in several different disciplines and can be fuzzy and intangible, as it is used to refer to various aspects of a person's life (Watson et al., 2012). In simple terms, well-being describes the quality of a person's life and

should be considered in terms of how one feels and functions across cognitive, emotional, social, physical, and spiritual dimensions (NSW Government, [n.d.](#)). Most well-being literature is rooted in the overlapping yet different paradigms of hedonic and eudaimonic well-being (Ryan & Deci, [2001](#)). Hedonism refers to subjective well-being involving mind and bodily pleasure and happiness as understood by the individual. Eudaimonic well-being refers to psychological growth that enables self-realisation. Usually, this perspective is associated with the functionality and flourishing of a person, while hedonic well-being emphasises feeling good within. This distinction is important because it fuels different ways of understanding, measuring, and nurturing well-being.

When the concept of well-being is associated with education, it is often understood as social and emotional well-being that encompasses a wide range of concepts, skills, dispositions, and attitudes. Research on well-being includes programmes that focus on promoting social and emotional well-being and deficit or negative models to repair or develop responses to problems, such as depression, anxiety, and antisocial behaviours (Watson et al., [2012](#)). Qvortrup ([2021](#)) further differentiated emotional, social, and academic well-being as three dimensions of well-being in a school context. The social dimension of well-being in school refers to belonging to a social group, and the emotional dimension refers to satisfaction with daily life, thinking positively, and being confident. The third dimension, academic well-being, was developed within the overarching well-being paradigm of eudemonism (Hascher, [2008](#)), elaborated above, and concerns the mindset and attitudes that students have towards their learning environment. It relates to students' experiences of having agency and being heard as well as their sense of belonging, engaging, and being valued in the academic community (Qvortrup & Lykkegaard, [2023](#)). It has been argued that academic well-being is both a central aspect of overall well-being in school (Hascher, [2003](#)) and an important value of life in general (Hascher et al., [2022](#); Higueta-Gutiérrez & Cardona-Arias, [2016](#)).

Research on academic well-being, however, often suffers from a lack of conceptual clarity. While most researchers define academic well-being in terms of academic engagement and joy related to academic work (Fiorilli et al., [2017](#); Gwozdzik & Stiefel, [2023](#); Hascher, [2003](#); Widlund et al., [2021](#), [2023](#)), many include additional elements in their definitions, such as the absence of school burnout (e.g., Fiorilli et al., [2017](#); Widlund et al., [2021](#), [2023](#)), good interpersonal relationships (e.g., Gwozdzik & Stiefel, [2023](#); Higueta-Gutiérrez & Cardona-Arias, [2016](#)), academic performance (Higueta-Gutiérrez & Cardona-Arias, [2016](#)), and aspects of educational identity, such as academic self-concept and satisfaction with educational choice.

By contrast, Hascher ([2007](#)) has argued that dimensions, which do not refer to feelings related to academic work, should be excluded from definitions of academic well-being. She has advocated for a more parsimonious definition of academic well-being that (1) sticks to the concept's core meaning of emotions and attitudes related to academic work, and (2) includes both the presence of positive experiences and the absence of negative experiences of academic work (Hascher, [2003](#)). According to Hascher ([2003](#)), this conceptualization of academic well-being mirrors common conceptions of general well-being that define well-being as a specific quality of

subjective evaluation and experience. In this chapter, we use Hascher's (2003) definition of academic well-being as our conceptual point of departure for measuring academic well-being among students. Specifically, we use students' perceptions of how well classroom teaching captures their attention and interest in a specific subject as measures of academic well-being. The specific items used as measures of academic well-being in the present study are displayed in the Method section. These items (1) align well with the notion of academic well-being as concerning emotions and attitudes towards academic work, and (2) include both items measuring the presence of positive experiences and one item measuring the absence of negative experiences. In addition, the survey items used to measure academic well-being in the present study are closely aligned with those used in other large-scale studies of academic well-being (Lykkegaard et al., 2023). One possible drawback of the items used in the present study is that they capture classroom-related aspects of academic well-being and, hence, pay less attention to aspects of academic well-being that are related to out-of-school contexts.

Teachers can have an impact on how students feel within the learning environment, and in many countries, emphasis has been placed on a supportive and secure learning climate, alongside how children and young people learn and how teachers enact their teaching. Teachers are required to be responsive to numerous aspects that are often related to personalised and differentiated learning and adaptive support for every student to succeed (Florian, 2019). Such support by the teacher can be linked to students' academic well-being, as defined by Qvortrup (2021). Responsive and supportive teachers contribute to emotional well-being by enabling a secure environment and student confidence and by promoting academic well-being and making students feel valued and heard. Moreover, academic well-being also depends on evoking students' interest and curiosity, which can result in positive attitudes towards their studies.

9.3 Method

9.3.1 *Data and Data Sources*

This study was built on a data-gathering procedure originally developed within the LISA Nordic study. The procedure comprised the following: (1) a nonprobability but instead diversity-maximising sampling of schools and classrooms in the five Nordic countries, (2) video observations of lessons in the sampled classrooms, (3) the distribution of the Tripod Student Perceptions Survey to students in the sampled classrooms (Ferguson, 2010), (4) the collection of background data on the sampled teachers and schools, and (5) the coding of the video observations by trained raters using PLATO (Grossman, 2019).

The present study used data gathered through the procedure described above and was based on systematic observations of 126 teachers¹ (conducted using the PLATO

¹Teacher–class constellations.

manual), as well as students' self-reported perceptions and experiences in class (gathered using the Tripod Survey). Of the 126 teachers, 29 (23.0%) were from Denmark, 26 (20.6%) were from Norway, 28 (22.2%) were from Sweden, 14 (11.1%) were from Finland, and 29 (23.0%) were from Iceland. In addition, the teachers taught different school subjects. Of the sampled teachers, 33 (26.2%) taught social science, 46 (36.5%) taught language arts, and 47 (37.3%) taught mathematics. Moreover, 36.5% were between 30 and 39 years of age, and 29.6% were between 40 and 49 years of age. The teachers had on average 13.58 years of teaching experience, and the majority (62.4%) self-identified as female. The study drew on 2468 students' answers to the Tripod Survey, and 546 of these students were from Denmark, 236 were from Finland, 581 were from Iceland, 568 were from Norway, and the remaining 537 were from Sweden. Of the surveyed students, 49.8% self-identified as female, and the remaining 50.2% identified as male.

9.3.2 Analytical Frameworks

The analytical framework used in this study, the PLATO protocol (Grossman et al., 2013), is organised around four instructional dimensions: Instructional Scaffolding, Intellectual Demand, Representation and Use of Content, and Classroom Environment. The PLATO manual further subdivides these dimensions into 12 elements, each constituting an observable aspect of teaching. The manual provides thorough descriptions of each element and instructions for raters on how to rate the presence of each (Grossman, 2019; Klette et al., 2021). Moreover, four of the PLATO elements (Representations of Content, Classroom Discourse, Text-Based Instruction, and Accommodations for Language Learning) are comprised of two subcomponents. The 12 elements and the subcomponents are all presented and described very briefly in Table 9.3. PLATO covers a wide range of both teacher and student activities in the classroom, but it attends primarily to the actions of the teacher. The PLATO protocol has proven to be a valid and reliable instrument for research in mathematics, language arts, and science classrooms in the United States (Cohen, 2018), Norway (Blikstad-Balas et al., 2018; Klette et al., 2017), and Sweden (Tengberg & Wejrums, 2021; Tengberg et al., 2022). The structure of PLATO has been validated, and it has been shown to be a consistent observation instrument (Cor, 2011). Rating teaching through PLATO requires a trained and certified rater. The rater divides the lesson into segments of 15 minutes and rates each segment on each of the manual's 12 elements. The rater gives each element a score on a scale from 1 to 4. A score of 1 means that there is almost no evidence for the presence of a specific element in a specific segment, while a score of 4 means that there is strong and consistent evidence (Grossman, 2019). The students in these classrooms responded to the Tripod 7Cs survey (Ferguson, 2012) in which they evaluated (on a five-point scale) the quality of different aspects of the teaching and relationship with teachers and students. The Tripod items ask students to assess how often their teacher engages in specific behaviours that are assumed to constitute high teaching

quality (see Table 9.1). The lowest value of the Tripod scale is 1, and this value corresponds to the response category “Never”. The highest value of the Tripod scale is 5, which corresponds to the response category “Always”. Lastly, it should be mentioned that Kendall’s tau-b was used as correlation coefficient to assess the bivariate relationship between students’ answers to the Tripod survey’s items and observed aspects of classroom teaching captured by the PLATO manual. Kendall’s tau-b was chosen, because PLATO scores are measured on a four-level scale and, hence, must be treated as ordinal data. The use of Kendall’s tau-b meant that the analyses were correlational in nature and did not provide a basis for making claims about causality.

9.3.3 Measuring Academic Well-Being

For this study’s purpose, we analysed students’ perceptions of captivating teaching using the Captivate construct from the Tripod 7Cs framework. The 7Cs framework groups items into three conceptual categories: personal support, curricular support, and academic press. The captivate items belong to the category of curricular support, which is defined as *teaching in ways that make the curriculum engaging, accessible, and coherent*. We argue that this element can be used to understand students’ perceptions of how the teachers spur the students’ attention and interest in the subject.

The items used to capture the captivate element are displayed in Table 9.1, alongside the results of a reliability analysis, which checked whether the items used could be said to constitute indicators of the same underlying empirical construct. As indicated in Table 9.1, the four items used to capture the construct of Captivate constituted a reliable and consistent measure of student captivation and were hence combined into an index. The Captivate index yielded a consistent and reliable measure of what we identify as academic well-being. The index was used as the dependent variable in the main analysis, outlined in the Results section.

Table 9.1 Reliability analysis of the Captivate index

Index	Type	Items in index	Reliability analysis using Cronbach’s alpha	Item–item analysis using Pearson’s R
Captivate index	Mean index: sum of the four items added and divided by the number of items in the scale. Scale ranges from 1 to 5, and the meaning of the values corresponds to the Tripod Survey’s response categories	This class does not keep my attention—I get bored [item reversed]. My teacher makes learning enjoyable. My teacher makes lessons interesting. I like the way we learn in this class	0.902	Max: 0.940** Min: 0.459**

Note. * $p < 0.05$; ** $p < 0.01$

9.4 Results

Following the operationalisation of academic well-being outlined in the Methods section, students' academic well-being was measured as their sense of captivation, understood as the extent to which they experienced their teacher's teaching as interesting and appealing. The analysis set out to explore the bivariate associations between these self-reported aspects of students' well-being and the observed aspects of their teachers' teaching (as captured by PLATO). Summary statistics of the captivate index are provided in Table 9.2.

The teacher's tendency to engage in specific teaching behaviours was measured using PLATO, which was outlined in the Methods section. Table 9.3 provides an overview of the average PLATO scores of the 126 participating teachers and their dispersion.

From Table 9.4, it is evident that students' sense of captivation was not only positively correlated with their teacher's propensity to engage in acts of translating life-world knowledge into disciplinary knowledge but also with their teacher's classroom management skills. Students' self-reported sense of captivation correlated positively with their teacher's observed ability to ensure an orderly classroom environment conducive to learning and characterised by order and an absence of disruptions (Behaviour Management; $\tau = 0.184$; $p < 0.01$). Similarly, students' self-reported sense of captivation correlated positively with their teacher's observed ability to avoid prolonged periods of waste-time and ensure that students are engaged in relevant subject-related activities (Time Management; $\tau = 0.169$; $p < 0.01$). While these results should be corroborated by further analyses, they intuitively make sense, since teaching characterised by disruptions, disorder, and extended periods of waste-time is arguably less inspiring and captivating than teaching characterised by engagement in relevant learning activities.

Table 9.4 further shows that students' self-reported sense of captivation was associated with their teacher's observed tendency to highlight, define, and prompt the use of key academic terms (Accommodations for Language Learning II; $\tau = 0.131$; $p < 0.05$). Lastly, students' self-reported sense of captivation was significantly correlated with their teacher's observed tendency to provide them with opportunities to engage in the production of their own authentic texts (Text-Based

Table 9.2 Descriptive analysis of the captivate index

	Captivate index, $N = 126$
Mean	3.53
SD	0.46
Min	2.27
Max	4.81

Note. Possible values for the captivate index ranged from 1 to 5
Max maximum, *Min* minimum, *SD* standard deviation

Table 9.3 Descriptive analysis of PLATO scores. N = 126

	Mean score, <i>M</i>	Standard deviation, <i>SD</i>	Lowest	Highest
Purpose: lesson purpose is stated clearly, and activities align to it.	2.11	0.30	1.00	3.09
Intellectual Challenge: learning activities are intellectually challenging	2.30	0.50	1.08	3.73
Representations of Content I: students are given clear and accurate examples, analogies, or explanations	2.32	0.54	1.13	3.54
Representations of Content II: instructional explanations are characterised by conceptual richness	2.23	0.47	1.17	3.27
Connections to Prior Knowledge: explicit references to prior lessons and students' prior academic knowledge are present	1.66	0.37	1.00	2.64
Strategy Use and Instruction: explicit and detailed instruction about subject-specific learning strategies is present	1.51	0.51	1.00	3.43
Modelling and Use of Models: the teacher accurately enacts subject-specific strategies, skills, or processes	1.50	0.54	1.00	3.36
Feedback: clear and specific feedback is given	2.10	0.40	1.18	3.38
Classroom Discourse I: uptake of student responses expands on student ideas or enables them to further explain their thoughts	1.92	0.52	1.00	3.38
Classroom Discourse II: teacher provides students with opportunities for student-directed talk	2.08	0.59	1.00	3.82
Text-Based Instruction I: instructional activities require students to actively use authentic texts	1.55	0.57	1.00	3.18
Text-Based Instruction II: students are given opportunities to engage in the production of authentic texts	1.41	0.43	1.00	2.69
Accommodations for Language Learning I: accessible and supportive materials for language learning are present in the classroom and used by students	1.47	0.47	1.00	3.08
Accommodations for Language Learning II: academic language is used, and key terms are introduced and defined	1.99	0.59	1.00	3.15
Behaviour Management: the classroom environment is characterised by order and facilitates student learning	3.66	0.40	2.55	4.00
Time Management: students are actively engaged in subject-related activities and do not waste time	3.41	0.44	2.00	4.00

Table 9.4 Bivariate associations between aspects of teaching and aspects of students' academic well-being

	Students' mean sense of captivation ^a
Purpose: lesson purpose is stated clearly, and activities align to it	-0.032
Intellectual Challenge: learning activities are intellectually challenging	0.019
Representations of Content I: students are given clear and accurate examples, analogies, or explanations	0.038
Representations of Content II: instructional explanations are characterised by conceptual richness	0.083
Connections to Prior Knowledge: explicit references to prior lessons and students' prior academic knowledge are present	0.002
Strategy Use and Instruction: explicit and detailed instruction about subject-specific learning strategies is present	-0.078
Modelling and Use of Models: the teacher accurately <i>enacts</i> subject-specific strategies, skills, or processes	0.008
Feedback: clear and specific feedback is given	-0.055
Classroom Discourse I: uptake of student responses expands on students' ideas or enables them to further explain their thoughts	0.010
Classroom Discourse II: teacher provides students with opportunities for student-directed talk	0.014
Text-Based Instruction I: instructional activities require students to actively use authentic texts	0.030
Text-Based Instruction II: students are given opportunities to engage in the production of authentic texts	0.146*
Accommodations for Language Learning I: accessible and supportive materials for language learning are present in the classroom and used by students	0.023
Accommodations for Language Learning II: academic language is used, and key terms are introduced and defined	0.131*
Behaviour Management: the classroom environment is characterised by order and facilitates student learning	0.184**
Time Management: students are actively engaged in subject-related activities and do not waste time	0.169**

Note. Kendall's tau B correlation coefficients are displayed

* $p < 0.05$; ** $p < 0.01$

^a $N = 126$ teachers, except for the analyses of Accommodations for Language Learning, where $N = 105$ and $N = 106$, and the analysis of Text-Based Instruction, where $N = 98$ and $N = 99$

Instruction II; $\tau = 0.146$; $p < 0.05$; only relevant for language arts and social science classrooms). One possible reason for this is that students' sense of captivation might, in part, stem from student-specific and topic-specific aspects of teaching rather than from generic aspects of teaching quality. One might reasonably argue that, to some extent, a topic or subject matter must appeal to a student's personal interests and aspirations to be truly captivating. If this is the case, it makes sense that students' feelings of captivation are related to their opportunities to engage in the production of their own authentic texts, since text production allows them to engage with a topic of their own choosing or to mould a prespecified topic in a way that suits their own interests.

9.5 Discussion

9.5.1 *Discussing the Empirical Findings*

The findings above suggest that students' sense of academic well-being depends, to some extent, on their teacher's ability to ensure an orderly classroom in which time is spent on relevant learning activities and, to some extent, on their teacher's propensity to engage in actions that directly help them understand "difficult stuff" by giving students clear definitions and explanations. We will now discuss the findings in more detail in relation to our theoretical background.

The results indicate that Time Management and Behaviour Management matter to students' academic well-being. We believe this has something to do with the central role of *orderly transitions* between activities (as a way to ensure a *safe space*), which has also been emphasised as a key to well-being in the literature (see e.g., Ferguson, 2012; Kyriakides et al., 2009; Muijs et al., 2014). It might also have something to do with the fact that teaching characterised by chaos implies less time for inspiring learning activities and less attention to the needs of individual students, because chaos detracts from the teacher's finite pool of resources. Classrooms characterised by good time and behaviour management are thus likely to increase students' well-being by enabling them to establish a trusting relationship with their teacher and succeed in their studies (Drake et al., 2021).

According to the results, Accommodations for Language Learning seem to play a role in students' academic well-being. This fits well with prior research that has shown that the provision of clear and accurate explanations, definitions, and examples is vital to understanding (Hayes et al., 2006; Klette et al., 2017; Klieme et al., 2009). It might be eye-opening for students in a way that makes them feel capable, self-efficacious, and aware that they have learned something new without much effort. Hence, students might perceive their teacher's provision of clear and accurate definitions and explanations as a service or a favour that makes learning easier; this, in turn, might explain why Accommodations for Language Learning II (teachers' use of academic language) correlates with students' sense of academic well-being. According to Florian (2019), successful teachers quite often manage to be responsive to needs related to personalised and differentiated learning and adapt their support to help students succeed. Similarly, teachers scoring high on Accommodations for Language Learning II provide their students with definitions of terms that adequately translate academic language into the everyday language or native language that the students have already mastered upon entering school (Forsman et al., 2024; Grossman et al., 2013). Hence, students might report higher levels of academic well-being when teaching is characterised by a high level of Accommodations for Language Learning because such teaching is accessible and meets the students where they are and may thus promote equitable access to educational opportunities. According to Kaya and Erdem (2021), there is a direct link between well-being and academic achievement, and vice versa—thus, well-being is a crucial prerequisite for achievement, and achievement is essential for well-being.

Although the link between students' sense of captivation and the teacher's tendency to highlight and define academic terms needs to be explored further, it is conceivable that eye-opening definitions of key terms might, at times, make students experience something equivalent to a "eureka moment", which has been shown to involve feelings of excitement (Shen et al., 2016). Moreover, definitions and examples of abstract academic terms can help students understand "difficult stuff" by translating the academic language they are expected to learn in school into the everyday (or native) language that they already master, as measured by PLATO's Accommodations for Language Learning (Christensen & Christensen, 2015; Forsman et al., 2024; Grossman et al., 2013). When teachers provide clear and accurate definitions of key terms, they might, therefore, contribute to the fostering of mastery experiences and consequently self-efficacy in students (see Bandura, 1994 for definitions); and self-efficacy has, in turn, been shown to be a strong predictor of academic well-being (Lykkegaard et al., 2025, p. 84–90).

9.5.2 Discussing the Measures Used to Capture Academic Well-Being

Though the empirical findings discussed above are interesting in their own right, we need to query which aspects of academic well-being are captured by the captivate construct in order to properly link these findings to the concept of academic well-being. First, the items comprising the captivate construct align well with Hascher (2003)'s notion of academic well-being as concerning emotions and attitudes towards academic work and as containing both the presence of positive experiences and the absence of negative ones. One drawback of using the captivate items to measure academic well-being, however, is that they only capture classroom-related aspects of academic well-being (i.e., students' emotions and attitudes towards academic work in a specific class encouraged by a specific teacher) and, hence, are blind to aspects of academic well-being that are unrelated to the school, teacher, and classroom contexts.

Another drawback of using the captivate construct to measure academic well-being is that two of the survey questions comprising the construct do not ask students to evaluate their own well-being directly, but rather ask them to evaluate the behaviour of their teachers. Still, the captivate construct can be used as a reliable proxy measure of academic well-being, since it measures aspects of students' own academic well-being that can be related to a specific class and a specific teacher. For example, it is impossible to agree to the statement "my teacher makes learning enjoyable" without also agreeing to experiencing some sort of subjective joy during teaching.

9.5.3 *Strengths and Limitations*

This study has some limitations that are important to mention. First, the study's quantitative design meant that we were unable to explain why the specific correlations were found, since students were not interviewed about their reasons for rating some kinds of teaching as more conducive to their well-being than others. Second, the sample of teacher–class constellations used was relatively small ($N = 126$) and gathered through nonprobability sampling. Consequently, our results cannot be readily generalised to the larger population of teacher–class constellations in the Nordic countries. Third, PLATO raters from the five Nordic countries rated the video observations. In addition, a Generalizability study was completed in mathematics and language arts, checking for measurement invariance (Jentsch & Klette, 2024). It revealed that most of the variance explained in scores was due to variation across subjects, suggesting that teaching quality varies systematically between mathematics and language arts classrooms, hence, issues related to measurement invariance across countries is not a major impediment for the observation scores. Fourth, the analysis was correlational in nature and did not provide the necessary basis for making claims about causality. However, a noteworthy strength of the present study was its combination of an observational design with student surveys, which allowed us to gain unique insights into how students' own sense of well-being relates to observed (rather than self-reported) aspects of teaching.

While the main emphasis in the analysis was on the overall associations between academic well-being and observations of teaching, the significant correlations by country and subject indicate that there may be country-specific and subject-specific elements that cannot be easily explained here and warrant further examination.

9.6 Conclusion and Implications for Teaching Practices

The aim of this study was to identify observable characteristics of classroom practice that might enhance students' perceptions of academic well-being and to understand what characterises classrooms in which students report captivating teachers. The two research questions put forward were as follows:

- Which aspects of academic well-being are captured by students' self-reported sense of being captivated by their teacher?
- How is students' self-reported sense of being captivated associated with observed aspects of teaching quality?

The well-being index used in our analysis consists of the captivate items from the Tripod 7Cs survey. According to our findings, Time Management and Behaviour Management seem to matter to students' academic well-being, though it is important to emphasize that further studies are needed to establish a firm link between them. If such a link is indeed established, one implication for schools is that

providing students with classrooms that are characterised by good time and behaviour management is likely to increase students' well-being and the quality of teaching (Drake et al., 2021). Our findings point to the importance of the quality of students' learning environment and the conditions they are provided by schools; this should be taken seriously, as schools are students' "workplaces", where they spend most of the day. Thus, our contribution to the discussion of teaching quality is that there is a need to further explore the connection between well-being, education, and the student environment.

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