

Well-being and learning

Taking inclusive education as a prominent example

1. Introduction

Over the last two decades, student well-being has increasingly moved into the spotlight of educational research. An examination of the rapidly growing body of literature reveals that student well-being is considered both particularly relevant for academic functioning and as a favourable educational outcome in itself (Steinmayr et al., 2018; Suldo et al., 2011). It is widely assumed that well-being and learning are intricately linked. On the one hand, students' school-related well-being serves as an indicator of the quality of a learning environment, which facilitates positive learning processes. On the other hand, it is generally expected that successful learning fosters students' well-being (Hascher, 2012). Similar assumptions apply to the context of inclusive education, where students' well-being is recognised not only as a key indicator of the quality of inclusion but also as an aim of inclusive education (Powell & Hadjar, 2018; Venetz, 2015; Wächter et al., 2024).

Nonetheless, a recent systematic review regarding the association between well-being and academic achievement of school-aged children has uncovered inconsistencies in findings, ranging from positive associations to no association or contradictory results (Amholt et al., 2020). Conflicting results are also reported regarding students' well-being in relation to inclusive education (Dalgaard et al., 2022; Goldan et al., 2022). Furthermore, several studies have demonstrated a general decline in subjective well-being from childhood to adolescence (Bücker et al., 2023; Casas & González-Carrasco, 2019), and from primary to lower secondary education (Knickenberg & Zurbriggen, 2021; Obermeier et al., 2022). These apparent contradictions raise the question of a possible trade-off between fostering students' well-being and promoting academic learning and achievement (Clarke, 2020).

Against this backdrop, this chapter aims first to briefly elucidate the concept of student well-being and its measurement, and second, to provide concise insights into the state of research concerning the associations between students'

subjective well-being and academic achievement, as well as on relevant factors of the learning environment within a classroom. Additionally, exemplary findings on students' subjective well-being in relation to inclusive education are presented, followed by a (preliminary) conclusion and suggestions for future directions.

2. Focus on students' subjective well-being

2.1 Conceptualising well-being

Since well-being is a broad, multifaceted construct (Tov, 2018), it may explain inconsistencies in findings regarding the association of students' well-being and academic achievement. Corresponding to an umbrella term, which is frequently used interchangeably with other terms (e.g., happiness, mental health, life satisfaction) and applied in many different contexts, well-being is often viewed as an ambiguous concept (Joos et al., 2018).

The variety of terms or definitions describing well-being can be broadly grouped into objective and subjective aspects or dimensions of well-being (Voukelatou et al., 2021). While *objective* well-being reflects people's material living conditions and their observable quality of life – including aspects such as physical health, safety, environment, and academic achievement – *subjective* well-being captures people's own perceptions or evaluations of their overall quality of life or of specific domains or situations.

Empirical educational research has mainly focused on students' *subjective* well-being. The most widely acknowledged conception of subjective well-being is the one by Ed Diener (Schimmack, 2008). According to Diener (1984), subjective well-being consists of the reflective cognitive judgements people make about their life in general or in specific domains (e.g., work, school, family), as well as positive and negative emotional responses to ongoing life experiences or specific situations (Diener et al., 2018).

2.2 Measuring students' subjective well-being in school

When conceptualising subjective well-being, it is essential to not only differentiate between *components* (i.e., cognitive, affective) and *life domains* (i.e., general, domain-specific), but also between *time frames* as in the general state-trait model (Eid, 2008). Accordingly, the framework model for the measurement of subjective well-being by Lischetzke and Eid (2006) distinguishes between habitual and momentary or situation-specific subjective well-being.

This distinction is also important when measuring students' subjective well-being in school. One prominent example of subjective well-being as a *trait* is the conception by Hascher (2010). She defined students' subjective well-being in school as a multicomponent construct that includes positive attitudes towards school, enjoyment in school, the absence of worries about school, a positive academic self-concept, and the absence of social problems as well as physical complaints in school. Measuring students' subjective well-being as a *state* primarily concerns its affective component, or more specifically, positive and negative affective experience in specific (learning) situations. Affective experience or state-like emotions can be assessed via momentary data techniques such as the experience sampling method (ESM; Hektner et al., 2007), which allows to capture state characteristics in situ and in real-time.

In educational studies, researchers have typically relied on retrospective self-reports when measuring students' subjective well-being. However, such memory-based reports of emotional aspects are often over- or underestimated (Conner & Barrett, 2012). To investigate retrospection effects of students' emotional experience in the classroom and possible changes during early adolescence, we compared retrospectively assessed affective experience (i.e., positive and negative activation) with in situ via ESM reported affective experience (Zurbriggen et al., 2021). Our findings indicated to a positive recall bias (i.e., 'rosy view') of students' affective experience at the end of primary education and to a negative shift in recall bias (i.e., 'blue view') by the end of lower secondary education.

3. Subjective well-being, academic achievement, and the learning environment

While about twenty years ago researchers had to make a plea for the relevance of well-being in school (Fend & Sandmeier, 2004), it is nowadays generally assumed that students' subjective well-being reflects a school environment that facilitates learning processes and promotes students' academic achievement. Successful learning, in turn, is thought to be essential for experiencing satisfaction and positive emotions in school (Hascher & Hagenauer, 2011). Thus, subjective well-being is viewed as a predictor of students' engagement and motivation to learn (Hascher, 2012). Since school and the classroom are also sources of negative experiences (e.g., academic failure, rejection by peers), subjective well-being can also serve a preventive function.

3.1 Associations of subjective well-being with academic achievement and engagement

Based on such theoretical considerations, several studies have examined the relationship between students' subjective well-being and academic achievement. The first meta-analysis on this topic showed a positive, but only small correlation ($r = 0.164$) between academic achievement and subjective well-being (Bücker et al., 2018). The correlation was stable across various levels of demographic variables, different components, and domains of subjective well-being, as well as across different contents and alternative measures of academic achievement. The authors concluded that high-achieving students do not necessarily report high subjective well-being, and low-achieving students do not automatically report low subjective well-being.

As students' engagement has been described as an important strength leading to well-being and positive learning outcomes, Wong and colleagues (2024) investigated in their recent meta-analysis the associations of students' academic engagement with subjective well-being and academic achievement. Their meta-analysis revealed medium correlations between students' engagement and subjective well-being, being most closely related to affective engagement ($r = .40$), followed by cognitive ($r = .35$) and behavioural ($r = .31$) engagement. The average correlation of engagement with subjective well-being ($r = .35$) was similar to the one with academic achievement ($r = .33$).

3.2 Factors of the learning environment affecting subjective well-being

Although the classroom is considered the most influential school context both on students' subjective well-being and their learning (Hascher, 2012), empirical evidence supporting these theoretical assumptions is still scarce. However, several studies have explored the impact of certain aspects of the learning environment within a classroom on students' subjective well-being. A large part of these aspects corresponds to social characteristics of the learning environment, but also a teacher's instructional practice plays a decisive role in developing and fostering students' well-being.

Social factors within a classroom that positively affect students' subjective well-being include positive relationships with peers and peer support (Goswami, 2012; Hoferichter et al., 2021), a positive student-teacher relationship (Zheng, 2022), and a supportive classroom climate (Oberle, 2018; Zurbriggen, Hofmann, et al., 2023). Factors that negatively affect students' subjective well-being include peer bullying, (strong) competition among peers (Arslan et al., 2021; Hoferichter & Raufelder, 2017), conflicts with teachers,

and pressure from teachers to achieve (Kiuru et al., 2020; Stang-Rabrig et al., 2023).

Regarding teachers' instructional practices, recent studies have shown that differentiated instruction is positively related to students' subjective well-being (Pozas et al., 2021) and that good instructional quality has a positive impact on students' subjective well-being (Obermeier et al., 2022).

4. Inclusive education and students' subjective well-being

Most of the aforementioned factors positively affecting students' subjective well-being and learning correspond to crucial characteristics for the successful implementation of inclusive education. Inclusive education not only means access to general education but also providing high-quality teaching and learning environments that maximise the academic and social-emotional development of all students (United Nations [UN], 2006, Art. 26). Differentiated instruction is seen as a vehicle to achieve inclusive education (Pozas et al., 2021) by implementing, for instance, adequately adapted teaching practices tailored to students' needs (Gheysens et al., 2023).

As already mentioned, students' subjective well-being is considered an important indication of the quality of inclusive education. Simultaneously, it also serves as a useful indicator for adaptive teaching, as it affects a teacher's decisions on how to design classroom interventions and instructions (Praetorius et al., 2015). Thus, accurate teacher judgement of students' subjective well-being is an important condition for adaptive teaching, which in turn promotes each student's learning and academic development.

In the following, exemplary findings of our own studies on the topic of inclusive education and subjective well-being are briefly presented.

4.1 Students' emotional experience and adaptive teaching

The first research question relates to the affective component of subjective well-being as a state: How do students experience different classroom situations of adaptive teaching in inclusive education? To address this question, we conducted an experience sampling study in 40 classrooms of Grades 5 and 6 in Switzerland (primary education) with about 720 students and a total of over 8000 occasions (Zurbriggen & Venetz, 2018). The results of our multi-level multigroup analyses showed that the included characteristics of adaptive teaching had a similar positive effect on students' emotional experience. When students had the option to choose between tasks, they were generally more positively activated (e.g., more energetic) and less negatively activated (e.g.,

less stressed) than when they could not choose between tasks. Similarly, the students were more positively activated and less negatively activated when they were able to work with their peers and did not have to work alone. Furthermore, students' emotional experience was best when the perceived difficulty level of a task was slightly higher than average. However, one differential effect between student groups was observed: The group of students with above-average academic achievement and well-adjusted social behaviour only reached maximum positive activation for tasks that they experienced as significantly more difficult than average.

4.2 Teacher judgement accuracy of students' subjective well-being in inclusive education

Second, we investigated teachers' judgement accuracy of students' subjective well-being as a trait and whether the (in-)accuracy in teacher reports (i.e., specificity) could be explained by student and teacher characteristics. To address these questions, we drew from the self-reports of about 2600 students in Grade 6 and the corresponding ratings of about 430 homeroom teachers and applied a multiple-indicator correlated trait-correlated method minus one model with explanatory variables (Zurbriggen, Nusser, et al., 2023). Following the conception by Hascher (2010), we focused on three components: emotional well-being in school, social inclusion in class, and academic self-concept. To investigate factors explaining the specificity in teacher reports of students' subjective well-being, we accounted for selected characteristics relevant in the context of inclusive education and adaptive teaching.

Our findings showed that teachers' judgement accuracy of students' subjective well-being was only low to moderate. 12% of the variance in teacher reports of students' emotional well-being was shared with the students' self-reports and 18% with regard to social inclusion, while for the academic self-concept the consistency was a little higher at 33%.

In terms of student characteristics, the status of special educational needs (SEN), gender, and academic achievement were significantly related to the specificity in teacher reports of all three aspects of students' subjective well-being. The effects were most pronounced for academic achievement, particularly on the academic self-concept. German as a primary vs. secondary language could only explain the specificity in teacher reports of the academic self-concept. The teacher characteristics included could explain the specificity in teacher reports only to a small extent. While teaching experience was negatively, but only very weakly, associated with the specificity in teacher reports of the students' academic self-concept, teachers' self-efficacy, their attitudes

towards inclusion, and their responsibility for every student were positively associated with the specificity in teacher reports of students' emotional well-being and their social inclusion in class.

4.3 Development of students' subjective well-being in lower secondary education

The third and last research question relates to the development of students' subjective well-being in inclusive classrooms during lower secondary education and whether students' academic achievement can predict changes in their subjective well-being.

To this end, we draw on data from the longitudinal project *Inclusive Education in Lower Secondary Schools in Germany* (INSIDE). The sample consisted of about 4600 students from lower secondary education who participated in Grades 6, 7, and 9. We specified a latent neighbour change model with predictors for change in subjective well-being. As expected, the findings showed that students' emotional well-being and their social inclusion slightly decreased from Grade 6 to Grade 9. The academic self-concept remained relatively stable. Furthermore, peer-related classroom climate and student-teacher relationship could predict change in students' subjective well-being.

5. Conclusion and future directions

This leads back to the initial question of this chapter: whether there is a trade-off between well-being and learning. Rather than being incompatible goals, research suggests that their relationship is not straightforward and that several gaps need to be addressed (Clarke, 2020). To reach a more solid conclusion about the assumed reciprocal relationship between students' subjective well-being and academic achievement or other learning outcomes, more longitudinal studies are required (Bücker et al., 2018).

Future studies would benefit from including potential moderating or mediating variables at the individual, classroom, and school levels, such as personality, instructional strategies, or school climate (Steinmayr et al., 2018). For instance, it could be worthwhile to investigate the role of students' engagement in this regard, as students' subjective well-being seems to be more strongly associated with academic engagement than with academic achievement.

Our findings indicate that adaptive teaching has a positive impact on students' emotional experience (Zurbriggen & Venetz, 2018). The question remains whether adaptive teaching has medium- and long-term effects on students' subjective well-being as well as on successful learning. Additional re-

search differentiating between components and time frames of subjective well-being could provide important insights into specific effects and underlying processes.

In light of the relatively low accuracy of teacher judgement regarding students' subjective well-being (Zurbriggen, Nusser et al., 2023), there is a risk of unjustly accusing teachers or placing additional pressure on these already heavily burdened professionals. Given the complexity and difficulty of estimating subjective or internal constructs, the discrepancies between the self-reports and teacher ratings of students' subjective well-being could be just used as diagnostic information. Being aware of student's own view and possible bias may reduce the expectancy effects of under- or overestimation, for instance, of students with SEN or low achievement. Interventions regarding inclusion have the potential to change teachers' beliefs, particularly if they provide the opportunity to gain experience with inclusive practices (Dignath et al., 2022).

As for further practical implications, creating a supportive social classroom climate can enhance students' subjective well-being, but also positively affect learning processes and achievement. This could be undertaken by incorporating elements and strategies of 'positive education' (Seligman et al., 2009), or by implementing evidence-based, systemic social and emotional learning (Rimm-Kaufman et al., 2023). In this vein, teachers should be supported in their endeavours in fostering a rich learning environment where all students can thrive academically and enhance their subjective well-being.

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