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When humour harms: Teacher humour and the development of students' psychological well-being

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Abstract

Different teacher humour types carry different instructional and relational meanings and may therefore have different implications for students' psychological well-being, which needs to be investigated. To this aim, this longitudinal multilevel study examined whether four types of teacher humour predicted the development of students' psychological well-being across one school year. Analyses were conducted with 1,273 ninth-grade students nested in 63 secondary school classes in Germany. At the first measurement point (T1), students reported their perceptions of course-related, course-unrelated, self-disparaging, and aggressive teacher humour. Psychological well-being was also assessed at T1 and at the end of the school-year (T3) and included positive attitudes toward school, enjoyment, worries and social problems in school. Two-level models were estimated separately for each well-being dimension, distinguishing individual student perceptions from shared classroom perceptions and controlling for the corresponding T1 well-being dimension. Results showed substantial stability in psychological well-being across the school year. Course-related and self-disparaging humour showed no reliable longitudinal benefits for student well-being. Course-unrelated humour predicted more worries at the student-level over time. Aggressive humour showed a clear negative pattern, predicting lower positive attitudes toward school and lower enjoyment in school at the teacher-level and at the student-level. These findings suggest that teacher humour is not generally adaptive. Its relevance for students' psychological well-being depends on the humour type. The study extends multidimensional humour research to the classroom context by showing that aggressive and poorly embedded humour undermine, rather than support, students' psychological well-being.

Introduction

General humour research has shown that humour is multidimensional and that different humour styles can have different, and sometimes opposite, associations with psychological well-being.[1,2] Adaptive humour styles, such as affiliative or self-enhancing humour, are usually associated with more favourable indicators of well-being, whereas maladaptive forms, such as aggressive or self-defeating humour, are often associated with less favourable psychological or interpersonal outcomes.[1-4] This differentiated perspective is particularly relevant for teacher humour since humour is identified as a salient feature of classroom interaction and recognised as a feature of instructional quality from both teacher and student perspectives.[5] Teacher humour may support instruction by attracting attention,[6] and creating a positive classroom atmosphere. [7] At the same time, teacher humour may be distracting, or threatening when it is poorly embedded in instruction or directed at students in disparaging ways.[8,9] Therefore, the question is not whether teacher humour is generally effective, but which types of teacher humour are associated with more or less favourable student outcomes.

This question is especially important for students' psychological well-being. Although teacher humour has been linked to several instructional, emotional, motivational, and relational outcomes, [5-15] research has not yet directly examined whether different types of teacher humour predict the development of students' psychological well-being. This gap is notable because psychological well-being is broader than single emotional or motivational outcomes, rather it captures how students experience and evaluate school over time. The present study addresses this research gap and investigates the role of teacher humour for student's psychological well-being.

From Classical Theories to Instructional Humour

Superiority theory conceptualises humour as arising from perceived superiority over others.[16] Relief theory explains humour as a release of psychological tension and helps clarify why humour may reduce stress, anxiety, or interpersonal tension. [17] Incongruity theory, explains humour as the perception and resolution of something unexpected, surprising, or absurd.[18,19] This perspective is especially important for teacher humour because students need to recognise and resolve incongruity in a teacher's humorous message before it can be experienced as humorous. [20] However, these general theories do not fully explain why some forms of teacher humour support classroom experiences whereas others may be distracting or harmful.

For this reason, the present study draws primarily on Instructional Humour Processing Theory (IHPT)[20], which applies incongruity-resolution logic to educational settings and emphasises the importance of humour type, appropriateness, and instructional relevance. We also draw on the conceptual model of instructional humour, which differentiates humour types according to their instructional, relational, emotional, and motivational meanings.[10]

This relational effect has been longitudinally observed with teacher humour types affecting perceived socio-emotional and motivational dimensions of instructional quality, which in turn affected student emotions and intrinsic motivation.[8] Thus, teacher humour may support students' psychological well-being when it is instructionally meaningful. However, it may also undermine psychological well-being when it is unrelated to instruction, socially inappropriate, or directed against students. A differentiated analysis of teacher humour is therefore needed to understand whether humour in school contributes to more or less favourable development of students' psychological well-being.

Teacher humour as a multidimensional construct in the classroom

Teacher humour can be understood as humorous communication used by teachers in instructional contexts, including verbal and nonverbal messages that students perceive as amusing, surprising, or enjoyable.[5,21,22] Contemporary teacher humour research conceptualises teacher humour as a multidimensional construct rather than as a single positive teaching behaviour.[9] A body of related research found that some teacher humour types are associated with positive classroom processes, and make the learning context more enjoyable. [7-9,14] Review studies suggest that humour may support learning and classroom communication when it is appropriate and instructionally relevant, but that inappropriate or hostile humour can be harmful. [24-26] Thus, the educational value of humour depends not only on whether teachers use humour, but on what kind of humour they use and how it is interpreted by students.[9]

In particular, Bieg and Dresel introduce the conceptual model of instructional humour and distinguish between course-related, course-unrelated, self-disparaging, and aggressive teacher humour.[10] These humour types differ in their instructional relevance, their target, and their likely social meaning in the classroom. *Course-related humour* refers to humour that is connected to lesson content. *Course-unrelated humour* is not connected to lesson content. *Self-disparaging humour* refers to humour in which teachers make themselves the target of humorous remarks. This humour type may reduce interpersonal distance and make teachers appear more approachable. *Aggressive humour* refers to humour that ridicules or humiliates students or private issues related to them. It is generally considered an inappropriate humour type because it violates relational and instructional norms.[8-10,12,20]

Recent research further supports the view that humour is not a peripheral classroom feature. Banaruee and Bieg showed that both teachers and students perceive teacher humour as a salient characteristic of instructional quality.[5] Their qualitative findings suggest that teacher humour is linked primarily to student support and, to a lesser extent, cognitive activation. Thus, teacher humour should be treated as a multifaceted classroom practice rather than as a uniformly positive instructional instrument. The present study examines whether this differentiated pattern also applies to students' psychological well-being.

Psychological well-being in school

Well-being is generally understood as a broad and multifaceted construct that includes the ways in which individuals experience and evaluate their lives positively.[27, 28] This multidimensional perspective is particularly important in educational research because students' experiences of school are not uniformly positive or negative.[29-31] According to Hascher's model, well-being in school is a quality of experience in which positive emotions and cognitions toward school, persons in school, and the school context dominate over negative emotions and cognitions.[29-31] It reflects students' emotional and cognitive evaluation of school life. Hascher's model conceptualises school well-being as multidimensional and includes six

central components: positive attitudes toward school, enjoyment in school, academic self-concept, worries because of school, physical complaints because of school, and social problems in school.[29 - 31]

Well-being in school is increasingly regarded as an educational goal in its own right and as a foundation for learning, engagement, and development.[29-32] Educational success should therefore not be defined only through performance indicators, because sustainable learning is closely connected to students' subjective experiences, emotions, and sense of comfort in school. [31,33] This point is particularly relevant in adolescence, when students often become more critical toward school and instruction and when school well-being tends to decline across the educational trajectory. [34,35] Eckert and colleagues showed that school subjective well-being is shaped by socioemotional factors.[34] Similarly, research on school climate and classroom processes suggests that students' well-being is shaped by the quality of the social and instructional environment.[36]

Teacher humour as a possible socioemotional determinant of school well-being

Eckert and colleagues provide recent longitudinal evidence for this claim by showing that students' self-concept and feeling accepted by teachers predicted changes in school subjective well-being across one school year.[34] This reasoning is consistent with Self-Determination Theory (SDT), which assumes that the satisfaction of basic psychological needs, especially relatedness and competence, supports both well-being and intrinsic motivation. [37 - 39] In line with this view, Grassinger and colleagues showed that students' subjective well-being in the classroom and intrinsic motivation were positively interrelated across one school year, suggesting that well-being is closely embedded in motivational and socioemotional classroom processes.[40] These findings are important for the present study because teacher humour is a concrete form of teacher communication through which students may infer interpersonal support, relatedness, and responsiveness.[5]

Teacher humour may therefore be understood as a socioemotional contributor to students' psychological well-being. As an instructional practice, humour may make lesson content more enjoyable, and reduce negative emotions during learning situations.[9,10,20] As a relational practice, humour may shape the emotional tone of teacher-student interaction and contribute to students' sense of belonging and acceptance.[5,8,10,41,42] When humour repeatedly makes classroom interaction emotionally positive, it may contribute to students' positive attitudes toward school and enjoyment in school. On the other hand, when humour repeatedly produces social threat or uncertainty, it may undermine these dimensions and contribute to worries or social problems.

However, whether teacher humour contributes to students' psychological well-being likely depends on humour type, an issue that has not yet been examined longitudinally. Teacher humour may be one such classroom experience because it is both visible to the class and personally interpreted by individual students. At the same time, classroom humour is not automatically supportive: it may create closeness, but it may also be misunderstood, intensify conflict, or reproduce unequal power relations.[42] A longitudinal multilevel perspective is therefore needed to examine whether different teacher humour types contribute to the development of students' psychological well-being over time.

The present study

The present study examined whether different types of teacher humour predict the development of students' psychological well-being across one school year. We assume that teacher humour is not uniformly adaptive. Rather, its associations with psychological well-being should depend on the type of humour and its meaning within the instructional and social context of the classroom. Previous longitudinal research on teacher humour has shown that separating student-level and teacher-level perceptions can reveal different patterns of association with student outcomes.[8,12] We therefore examined associations at both the student and teacher levels.

Course-related humour may be the humour type most likely to support psychological well-being because it combines amusement with instructional relevance. Because it embeds amusement within meaningful instruction, it may support positive attitudes toward school and enjoyment in school. [8,9,12,15] Thus,

H1: Course-related humour predicts more favourable development of psychological well-being at both teacher- and student-levels.

Although course-unrelated humour is theoretically classified as prosocial, previous research suggests an ambivalent pattern, with some short-term relational or emotional benefits but less favourable emotional, motivational, and instructional associations over time. [8,9,11] Because it is detached from lesson content, it may weaken instructional focus or be perceived as irrelevant to learning. Thus,

H2: Course-unrelated humour predicts less favourable development of psychological well-being at both teacher- and student-levels.

Self-disparaging humour has also shown mixed implications. Prior findings suggest that it is mainly neutral in some studies but shows favourable indirect longitudinal associations through teacher-student relationship and interestingness in others. [8,9,11] Therefore, self-disparaging humour may be potentially adaptive, but its benefits for psychological well-being are likely to be weaker and less consistent than those of course-related humour. Thus,

H3: Self-disparaging humour predicts more favourable development of psychological well-being although effects are expected to be weaker than those of course-related humour at both teacher- and student-levels.

Aggressive humour is expected to be the most problematic humour type. It carries a risk of threatening students' sense of respect and psychological safety, since prior research has consistently found its harmful effects and associations related with emotional, motivational, instructional, and social factors in the classroom. [8,9,12,15] Accordingly, the fourth hypothesis is

H4: Aggressive humour predicts less favourable development of psychological well-being at both teacher- and student-levels.

Methods

Participants

The initial sample comprised 1,821 students from 71 Grade 9 English classes at different XX secondary schools. Because the present study examined teacher humour as a teacher-related classroom characteristic, seven classes were excluded when the English teacher changed during the school year. Such changes would have compromised the consistency of the teacher context across measurement waves. To ensure sufficient longitudinal information, the analytic sample was further restricted to students who participated in at least two measurement waves. Students with data from only one wave provide limited information for longitudinal estimation and may reduce statistical efficiency in the presence of missing data.[43,44] The final analytic sample consisted of 1,273 students nested in 63 classes, with an average class size of 20.2 students. Of the students, 52.1% identified as female, 47.1% as male, and 0.8% as diverse. The mean age was 14.3 years (SD = 0.52). Approximately 90% of the students were born in XX.

Measures

Teacher humour

Students' perceptions of teacher humour were assessed at T1 using the Teacher Humour from Students' Perspective Scale (HUMLAS). [23] The scale consists of 17 items rated on a five-point Likert scale ranging from 1 (*never*) to 5 (*very often*). It assesses four types of teacher humour. *Course-related humour* was measured with six items (ω = .94), for example, 'Our teacher tells jokes that are related to the course content.' *Course-unrelated humour* was measured with three items (ω = .88), for example, 'Our teacher tells jokes that are unrelated to the course.' *Self-disparaging humour* was measured with four items (ω = .85), for example, 'Our teacher makes fun of himself/herself during the course.' *Aggressive humour* was measured with four items (ω = .85), for example, 'Our teacher ridicules students' private lives and personal preferences.' Higher scores indicate more frequent student-perceived use of the respective humour type.

Psychological well-being

Students' psychological well-being in school was assessed using some dimensions from Hascher's school well-being scale.[29] Items were rated on a six-point Likert scale ranging from 1 (*never*) to 6 (*very often*). The present study focused on four dimensions of psychological well-being: positive attitudes toward school, enjoyment in school, absence of worries, and absence of social problems. *Positive attitudes toward school* were measured with three items (ω = .83), for example, 'I can find something positive about school, no matter what happens.' *Enjoyment in school* was measured with three items (ω = .84), referring to positive experiences at school during the past several weeks, for example, 'The teacher was so kind and understood me.' *Worries in school* were measured with three items (ω = .86), for example, 'I became worried about my grades at school.' *Social problems in school* were measured with three items (ω = .89), for example, 'I had some issue with one of my classmates.' Items assessing worries and social problems were reverse-coded so that higher scores indicated fewer worries and fewer social problems. Thus, higher values on all four well-being dimensions reflected more favourable psychological well-being in school.

Procedure

Data were collected within three measurement points across one school year in three German federal states: Baden-Württemberg, Saarland, and Thuringia. The first measurement took place at the beginning of the school year, when students had started to form initial impressions of their English teacher and classroom instruction. The second measurement followed approximately four months later, and the third measurement was conducted toward the end of the school year. This spacing was chosen to capture classroom experiences over a developmentally meaningful period and to allow sufficient time for students' perceptions of teacher behaviour and psychological well-being to unfold across the school year.

The questionnaires were administered digitally via the Unipark platform.[45] Data collection took place during regular school hours in the participating schools, using school computers or tablets. Before completing the questionnaire, students received standardised instructions and were informed that participation was voluntary and that their responses would be treated anonymously. Only students with written parental consent were allowed to participate. The study received ethical approval from Weingarten University of Education and was preregistered as part of the DFG-funded (German Research Foundation) project. After each measurement wave, responses were exported from Unipark and prepared for analysis. The exported data files were checked, merged across measurement points, and converted into an SPSS dataset for data management and subsequent statistical analyses.

Analyses

The analyses were conducted in four steps. First, descriptive statistics, bivariate correlations, and intraclass correlations were calculated for all study variables. Intraclass correlations were used to examine the proportion of variance located at the class level. This was particularly important for the teacher humour variables because students were nested within English classes and rated the same teacher. Second, preliminary two-level models were estimated to examine whether the T3 psychological well-being dimensions showed residual between-class variance after the corresponding T1 well-being dimension had been controlled at the student-level. Prior well-being was controlled only at the student-level, because the aim was to account for students' initial individual differences in well-being without controlling away potentially meaningful

between-class variation. These models were used to determine whether there was classroom-level variation in the development of psychological well-being.

Third, mean-level changes in psychological well-being from T1 to T3 were examined using paired-sample t-tests. These analyses tested whether students' positive attitudes toward school, enjoyment in school, absence of worries, and absence of social problems changed on average across the school year. Effect sizes were reported as Cohen's *d*, with signs aligned with the direction of change from T1 to T3. Fourth, the main longitudinal analyses were conducted using two-level models in Mplus version 8.11.[46] Students were nested within classes, and class ID was specified as the cluster variable. Teacher humour was assessed at T1 and psychological well-being at T1 and T3. Separate models were estimated for the four focal well-being dimensions: positive attitudes toward school, enjoyment in school, absence of worries, and absence of social problems.

To distinguish individual student perceptions from shared classroom perceptions, each teacher humour variable was decomposed into a student-level and a teacher-level component. The student-level component represented individual deviations from the class mean, whereas the teacher-level component represented the class mean and therefore reflected shared classroom perceptions of the teacher's humour. At the student-level, psychological well-being T3 was regressed on the corresponding T1 well-being dimension and the four student-level humour variables. At the teacher-level, psychological well-being T3 was regressed on the four class-level humour variables. Missing values were defined in Mplus and handled using full-information maximum likelihood estimation. This approach uses all available information in the data and provides unbiased parameter estimates under the assumption that data are missing at random.[47,48] Models were estimated using maximum likelihood estimation with robust standard errors. Because the study was observational, the findings are cautiously interpreted as longitudinal associations rather than as evidence of causal effects.

Results

Table 1 presents descriptive statistics, bivariate correlations, and intraclass correlations. The psychological well-being dimensions showed moderate stability from T1 to T3, with autocorrelations ranging from .45 for enjoyment in school to .61 for positive attitudes toward school. The well-being dimensions were positively related but not redundant. Bivariate correlations showed small associations between teacher humour and well-being dimensions. Course-related humour correlated positively with positive attitudes toward school and enjoyment in school. Course-unrelated humour correlated negatively with absence of worries at both measurement points and with absence of social problems at T3. Self-disparaging humour showed small positive associations with enjoyment in school. Aggressive humour showed negative associations with most well-being dimensions. The intraclass correlations indicated that teacher humour perceptions had a substantial classroom-level component, with ICCs ranging from .21 to .39. In contrast, ICCs for psychological well-being were smaller, ranging from .02 to .05. This pattern supported the use of two-level models separating student-level and classroom-level perceptions. [49]

Table 1

Descriptive statistics and bivariate correlations for all variables

1. Positive attitudeT1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
	—	**.61****	**.56****	**.40****	**.15****	**.14****	**.17****	**.17****	**.11****	**− .06***	**.04**	**− .09****
2. Positive attitudeT3		—	.37**	.58**	.17**	.19**	.16**	.27**	.08*	− .04	.03	− .12**
3. EnjoymentT1			—	.45**	.10**	.07*	.14**	.10**	.22**	− .02	.12**	− .05
4. EnjoymentT3				—	.11**	.11**	.09**	.13**	.18**	.01	.09**	− .11**
5. Absence of worries T1					—	.56**	.20**	.15**	− .04	− .07*	− .05	− .08**
6. Absence of worries T3						—	.19**	.24**	− .07*	− .09**	− .05	− .05
7. Absence of social problems T1							—	.51**	.09**	− .01	.01	− .08*
8. Absence of social problems T3								—	.02	− .09**	− .01	− .14**
9. Course-related humour T1									—	.27**	.52**	.02
10. Course-unrelated humour T1										—	.46**	.46**
11. Self-disparaging humour T1											—	.22**
12. Aggressive humour T1												—
Mean	3.98	3.89	3.98	3.80	3.29	3.33	5.15	5.13	2.91	1.86	2.11	1.36
SD	1.17	1.22	1.18	1.24	1.49	1.56	1.12	1.15	1.01	0.96	0.85	0,66
ICC1	.04	.05	.03	.03	.04	.04	.02	.04	.39	.27	.26	.21

Note. T1 = Time 1; T3 = Time 3. For the well-being dimensions, higher scores indicate greater well-being. Thus, higher scores for worries in school indicate fewer worries. Ns ranged from 1005 to 1144. * $p < .05$, ** $p < .01$ (2-sided).

After controlling the corresponding T1 well-being dimension, significant between-class residual variance remained for positive attitudes toward school and absence of worries (see Table 2).

Table 2

Variances of Time 3 well-being between classes and within students (well-being T1 controlled)

Well-being dimension	Between-class Σ²	SE	Est./SE	*p*	Within-student Σ²	*p*
Positive attitudes	0.045	0.019	2.37	.018	1.003	< .001
Enjoyment in school	0.047	0.025	1.89	.059	1.315	< .001
Absence of worries in school	0.068	0.031	2.17	.030	1.735	< .001
Absence of social problems	0.026	0.017	1.59	.113	1.005	< .001

Note. Σ² = residual variance. Values are unstandardised residual variances from two-level Mplus models.

Paired-sample t-tests showed small decreases in positive attitudes toward school and enjoyment in school from T1 to T3, whereas absence of worries and absence of social problems did not change significantly (see Table 3).

Table 3

Paired-sample t-tests

Well-being dimension	M T1	SD T1	M T3	SD T3	ΔM	*t*	df	*p*	Cohen's *d*
Positive attitudes	3.98	1.17	3.89	1.23	-0.09	-2.79	1003	.005	-0.09
Enjoyment in school	3.99	1.18	3.80	1.35	-0.19	-4.64	1003	< .001	-0.15
Absence of worries in school	3.28	1.48	3.33	1.56	0.05	1.01	1004	.312	0.03
Absence of social problems	5.17	1.09	5.13	1.15	-0.04	-1.24	1005	.215	-0.04

Note. ΔM = M at Time 3 minus M at Time 1. *p*-values are two-tailed. Ns ranged from 1004 to 1006.

In the longitudinal two-level models, the corresponding T1 well-being dimension significantly predicted each T3 well-being dimension at the student level (see Table 4). Course-related and self-disparaging humour showed no significant longitudinal effects on any well-being dimension at either level. Course-unrelated humour negatively predicted absence of worries at the student level, indicating more worries over time. Aggressive humour negatively predicted positive attitudes toward school and enjoyment in school at both the teacher and student levels. No other teacher-level humour effects reached statistical significance.

Table 4
Longitudinal two-level effects

Predictor	Positive attitudes	Enjoyment in school	Absence of worries in school	Absence of social problems
Teacher-level				
Course-related humour	− .17	.19	− .21	− .37
Course-unrelated humour	.45	.33	.03	.25
Self-disparaging humour	.09	.38	.01	.20
Aggressive humour	− .64**	− .68**	− .48	− .52
Student-level				
T1 well-being dimensions	.54***	.40***	.53***	.49***
Course-related humour	.02	.01	− .03	.02
Course-unrelated humour	.00	.01	− .06*	− .07
Self-disparaging humour	− .01	− .02	.04	.03
Aggressive humour	− .08*	− .09*	.02	− .08
R^2 teacher-level	.25	.67	.26	.22
R^2 student-level	.31	.17	.28	.26

Note. Values are standardised coefficients. Teacher-level predictors represent class-level shared perceptions of teacher humour. Student-level humour predictors represent individual deviations from the class mean. T1 well-being was included only at the student-level and refers to the corresponding T1 well-being dimensions. Higher scores for absence of worries and absence of social problems indicate fewer worries and fewer social problems. * $p < .05$, ** $p < .01$, *** $p < .001$.

Overall, H1 and H3 were not supported, H2 was partially supported at the student level, and H4 was supported for positive attitudes toward school and enjoyment in school at both levels. The pattern therefore differed by humour type, with aggressive humour showing clear negative longitudinal associations with students' psychological well-being.

Discussion

The present study examined whether different types of teacher humour predict the development of students' psychological well-being across one school year. To our knowledge, this is the first longitudinal multilevel study to test this question directly. This extends previous teacher humour research by focusing on school-specific well-being over time. [5,8–10,12,20] The findings provide a differentiated answer: teacher humour is psychologically consequential, but its consequences depend on humour type, instructional embeddedness, and relational meaning. Humour in the classroom should therefore not be treated as a generally positive pedagogical behaviour.

Aggressive humour was the humour type most consistently associated with less favourable development of students' well-being, especially in the affective-evaluative dimensions of school experience. This finding aligns with multidimensional humour research showing that aggressive humour differs qualitatively from more adaptive humour styles and is linked to hostility, and less favourable interpersonal meanings. [9,10,12] In the classroom, this distinction is particularly important. A sarcastic or disparaging remark does not occur in a neutral social space, but in a setting marked by teacher authority and

peer visibility. Even when intended as playful, aggressive teacher humour may be experienced as a loss of respect, a threat to belonging, or a signal that mistakes and vulnerability can become objects of public amusement. The present findings therefore extend general humour–well-being research into the classroom context by showing that aggressive teacher humour is not merely a problematic interaction style, but also a potential risk factor for students' psychological well-being. This finding can also be explained by SDT. [37 - 39] Aggressive teacher humour appears to frustrate students' need for relatedness, which in turn help to explain less positive attitudes toward school and lower school enjoyment. These findings concerning aggressive teacher humour, assessed in the context of English lessons and referring to the English teacher, are particularly noteworthy because they suggest that negative experiences with a teacher may extend beyond the subject context and relate to students' enjoyment of school more generally.

The absence of reliable longitudinal benefits for course-related humour should also be interpreted in light of the broader school well-being literature. School well-being is relatively stable and shaped by multiple sources, including prior experiences, self-concept, classroom climate, teacher-student relationship, peer relationship, and individual characteristics.[31,34,36,50] A single positive instructional feature may therefore be insufficient to produce broad changes in psychological well-being across one school year. Course-related humour may still have benefits for emotional, social, and motivational aspects, as suggested by instructional humour research. [9,10,12,20] These findings suggest that the effects of course-related humour are more context-specific, influencing students' emotional well-being within a particular classroom and teacher–student relationship, rather than their broader subjective well-being at school. However, such situational benefits may not necessarily accumulate into measurable changes in broader well-being dimensions such as positive attitudes toward school, enjoyment in school, absence of worries, or absence of social problems. By contrast, aggressive humour may be more consequential because negative relational experiences are especially salient in adolescence and may directly threaten students' social safety.

Course-unrelated humour showed a more selective pattern. Its associations were not broadly negative, but it was linked to less favourable development in specific socio-emotional dimensions at the student-level. This finding is consistent with the idea that humour detached from instruction may have ambiguous effects.[8] On the one hand, course-unrelated humour may create momentary amusement and make teachers appear more approachable. On the other hand, it may also interrupt instructional structure that some students experience as distracting or socially uncomfortable.

The absence of reliable effects for self-disparaging humour should also be interpreted in a differentiated way. Self-disparaging humour may reduce social distance and make teachers appear more approachable, but it is not necessarily connected to instruction or to students' own school experience. The present results suggest that self-disparaging humour is not a reliable source of students' psychological well-being over time. It may be socially pleasant in some situations, but it does not appear to function as a systematic protective classroom factor.

Overall, the findings provide partial support for the conceptual model of instructional humour.[10] According to this model, teacher humour should be differentiated by its content, function, and pedagogical integration. The present study supports this assumption by showing that different humour types have different implications for students' well-being. The results are especially consistent with the distinction between humour that is instructionally embedded and humour that is socially or relationally risky. However, the expected benefits of course-unrelated and self-disparaging humour were not observed. The negative association between course-unrelated humour and absence of worries further suggests that the relational assumptions concerning this humour type require refinement.

The multilevel structure of the findings is also noteworthy. Teacher humour showed meaning at both the teacher- and student-levels. Shared classroom perceptions reflect humour as a collective classroom characteristic, whereas individual deviations reflect how particular students perceive the teacher's humour relative to their classmates. This distinction is important because the same teacher behaviour may not be experienced identically by all students. This is consistent with

recent teacher-humour research emphasising that student perceptions are not merely interchangeable individual impressions, but are nested within classroom contexts.[8]

Practical implications

The findings have direct implications for teacher education and classroom practice. First, teachers should be encouraged to treat humour as a pedagogical and relational practice rather than as a harmless personal style. The central practical message is not that teachers should avoid humour, but that they should avoid humour that ridicules and humiliates students. Aggressive humour is particularly problematic because it may threaten students' sense of respect and psychological safety, especially when it occurs publicly.

Second, teacher education programmes should help teachers distinguish between humour types. General advice such as "use humour in teaching" is insufficient. Course-related humour may be useful when it is clearly connected to content. Course-unrelated and self-disparaging humour should be used carefully and moderately, because they may create momentary joy in the classroom but they do not necessarily support students' psychological well-being over time.

Third, school-level reflection on humour may be useful for promoting a respectful classroom climate. The present findings suggest that humour deserves more attention in discussions of instructional quality, classroom climate, and student well-being. Professional reflection could include concrete examples of supportive and harmful humour, discussion of student perspectives, and strategies for using humour in ways that are instructionally meaningful, and psychologically safe.

Limitations and future directions

Although the study addresses an important gap, several limitations should be considered in interpreting the findings. First, the study focused on students in Grade 9 English classes in secondary schools. Future research should examine whether similar patterns emerge in other age groups, subjects, school types, and cultural contexts. Humour norms can differ by age, classroom culture, and subject matter, and these differences may shape how teacher humour is interpreted.

Second, the study examined perceived teacher humour rather than observationally coded humour events. Future studies could combine student reports with classroom observations or video recordings to examine how specific humour episodes are produced and interpreted in classroom interaction. Such multimethod designs would make it possible to connect humour frequency, humour type, teacher intention, student interpretation, and well-being more directly.

Third, causal conclusions should still be drawn with caution. Teacher humour was not experimentally manipulated, and unmeasured classroom processes may contribute to students' well-being development. Future research could use experimental, intervention, or intensive longitudinal designs to examine more fine-grained mechanisms. For example, diary studies could test whether daily experiences of aggressive or supportive humour predict short-term fluctuations in enjoyment, worry, or belonging, which may accumulate into more stable well-being over time.

Conclusion

The present study provides the first longitudinal multilevel evidence that different types of teacher humour are associated differently with the development of students' psychological well-being. The findings challenge the common assumption that humour in teaching is inherently beneficial. Instead, they show that the implications of teacher humour are selective, humour-type specific, and dependent on instructional and relational meaning. Aggressive humour emerged as a clear risk factor, whereas course-related and self-disparaging humour did not show reliable longitudinal benefits. Course-unrelated humour showed selective negative associations at the student-level. These results support a multidimensional view of teacher humour and extend instructional humour theory to students' psychological well-being. Humour can contribute to the emotional and relational quality of classroom life, but only when it is used in ways that are instructionally meaningful, socially inclusive, and psychologically safe.

Declarations

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Informed consent: Informed consent was obtained from all individual participants involved in the study. Written parental consent were obtained from all participants.

Competing Interests: Authors report that there are no competing interests to declare.

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