

# The Role of Humor in Teaching and Its Relationship to Flow Experience

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## Abstract

Among the challenges facing twenty-first-century education, the increasing importance of experiential learning, student engagement, and intrinsic motivation has become increasingly apparent. The effectiveness of the learning process is determined not only by the amount of material taught or the quality of frontal knowledge transfer, but also by the psychological state in which the learner is immersed during the activity. One of the most widely recognised concepts of this mental state is *flow*, in which the individual's full attention and competence are focused on a challenging yet achievable task, while perceptions of time, self-reflection, and external pressure are pushed into the background. The integration of flow theory into education has been on the agenda for decades, but in recent years, a flow-based pedagogical model has emerged that specifically aims to sustain this state of consciousness. One of the model's unique features is that it takes into account not only the cognitive and methodological conditions for inducing student immersion, but also the affective and interpersonal conditions. In this context, teacher humour, as a tool for fostering emotional connections and enhancing motivation, is an integral part of the model. The aim of this study is to explore how teacher humour functions as a flow-supporting factor in Dominek's Flow-based Pedagogical Model (hereinafter: FPM) and to examine the psychological, pedagogical, and methodological implications of this integration. In this study, the theoretical foundations of flow and humour will be reviewed, then present the relevant elements of the FPM, and finally an integrated interpretive framework will be proposed that can serve as a starting point for empirical research.

**Keywords:** teacher humour; flow; aha-experience; education

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## Theoretical background: The psychology of flow and its implications for education

The role of humour in education has been studied for decades (e.g., Banas, Dunbar, Rodriguez, and Liu 2011), but its specific relationship to the experience of flow is a relatively unexplored area. The term 'flow' was introduced by Mihaly Csikszentmihalyi (1990), who argued that people experience their greatest satisfaction and efficiency in states of complete immersion in a challenging activity that matches

their competencies. According to Csikszentmihalyi (1990), there are eight main characteristics of the flow experience. The state of flow is characterised by the person pursuing clear goals and receiving immediate feedback on his/her activities. Challenges and abilities are in balance, allowing for deep concentration and complete immersion in the activity. In this state, self-reflection ceases, time perception is distorted, and the person experiences a sense of control over the situation. Finally, one of the most important features of the flow experience is that the activity itself is self-rewarding, meaning that the action itself is a source of joy.

A growing body of educational research shows that students' flow experience in the classroom positively affects learning, motivation, and creative problem-solving (Shernoff et al. 2003; Schüler, Sheldon, and Fröhlich 2010). Flow is not only an individual experience but also occurs in a social context (Nakamura and Csikszentmihályi 2014), highlighting the educator's role in facilitating it.

## The role of humour in learning

Humour appeared in ancient Greek education as a light-hearted companion to learning, but only modern psychological and pedagogical research has confirmed that humour is much more than a simple pastime or mood enhancer. Its role in the learning process is complex and multidimensional: it can reduce student anxiety, increase motivation, and help maintain attention (Martin 2007). Anxiety, especially in a school environment, can significantly inhibit students' abilities to process and retain new information. In this context, humour plays a crucial role: laughter and joyful experiences help break down mental blocks caused by stress and create a positive, supportive learning environment (Bryant and Zillmann 1984). Based on the above, students become more open to acquiring new knowledge and can more easily activate their cognitive skills. In addition, humour helps maintain attention. Students have limited attention spans, which can easily wane during longer lessons. An unexpected and humorous element in teaching can immediately grab attention, renew students' interests, and thus contribute to more effective learning (Nezlek and Derks 2001).

It is important to note that laughter and humorous interactions increase dopamine and endorphin levels in the brain, creating a neurological state that is conducive to learning. This biochemical background supports memory consolidation and long-term storage of information (Martin 2007). Humour has therefore been an integral part of human communication for thousands of years and has a long tradition in education. Humour can help relieve students' anxiety, which is one of the main obstacles to effective learning. When a student becomes tense or nervous, for example, because of an exam or learning new material, their ability to absorb and process the material is significantly impaired (Martin 2007). In contrast, a humorous atmosphere promotes relaxation, reduces stress hormone levels, and allows students to be more open to new information. Furthermore, humour stimulates interest and attention. Students' attention can easily wander, especially when the material is monotonous or perceived as dry. A well-chosen humorous element,

such as an anecdote, a playful pun, or visual humour can revive attention and help deepen understanding of the material (Nezlek and Derks 2001). This is particularly important in today's digital age, when divided attention is a serious challenge. From a biological point of view, laughter activates the brain's reward system. The release of dopamine and endorphins is not only responsible for feelings of well-being but also reinforces learning processes, supporting long-term memorisation of learning material (Martin 2007). Thus, humorous experiences not only make learning more enjoyable but also more effective.

In psychological terms, humour also acts as a protective shield for students. In a school environment, where competition, the pressure to conform, and social pressure often cause tension, humour helps relieve anxiety and facilitates the expression of emotions (Kuiper et al. 2004). The use of humour promotes a positive emotional state, which in turn benefits students' mental health. In addition, humour contributes to the cohesion of the student community. A shared joke or humorous situation strengthens group identity, promotes positive relationships between students, and improves cooperation (Kuiper et al. 2004). This social cohesion is the basis for effective learning communities. In the teacher-student relationship, humour brings the parties closer together. The human side of the teacher, which can be revealed through humour, builds trust and understanding, making students more willing to turn to them with their questions or problems (Wanzer, Frymier and Irwin 2010). This relationship not only increases student motivation but also positively affects learning outcomes (Banas et al. 2011).

## **The pedagogical significance of humour**

The use of humour in education is not a new idea, but its scientific basis has become more prominent in recent decades. Humour can serve various functions: it relieves tension, promotes teacher-student bonding, maintains attention, and facilitates memorisation of the subject matter (Ziv 1988; Garner 2006). However, the effectiveness of humour depends significantly on the type of humour used: research indicates that affiliative and self-deprecating humour (Ceha et al. 2021) positively affects the learning process, whereas aggressive or sarcastic humour can be counterproductive.

Teacher humour is a key element of an affective learning environment. Positive emotions not only increase comfort but also stimulate creative thinking and long-term memory and facilitate overcoming learning obstacles (Fredrickson 2001). This indirectly contributes to the development of flow by helping students remain open to challenges and avoid disengaging from learning activities prematurely. Thus, humour is an important tool for building relationships not only for students but also for teachers. A teacher who uses humour is not necessarily a clown or an entertainer, but a professional who is able to create a relaxed and accepting atmosphere while maintaining learning goals and professional credibility (Wanzer et al. 2010). This atmosphere of trust forms the foundation for collaboration and shared learning, which in the long term improves students' achievement and teach-

ers' satisfaction (Banas et al. 2011). Therefore, a teacher's sense of humour is not merely a pleasant personality trait but also a strategic tool that contributes to the success of education and students' emotional well-being (Martin 2007).

## Humour and memory

In line with the aim of the study, the research question is as follows: Is the material better retained when taught in a lesson that incorporates humour?

One of the greatest challenges in education is ensuring that new knowledge is not only absorbed in the moment but also retained in students' long-term memories. Humorous content can be particularly effective in this regard. Schmidt's (1994) studies have shown that humorous information is more strongly retained in memory due to its unusual nature and emotional charge. The aha experience, which signals the moment of understanding, is often closely linked to the haha experience, i.e., humorous recognition (Ziv 1988). This dual effect reinforces in students that what they have learned is not only meaningful but also enjoyable, making it easier for them to recall the material later. A well-timed humorous example or joke can make a concept much more memorable (Bryant and Zillmann 1984), so incorporating humorous educational content not only helps maintain attention but also promotes a deeper, more lasting understanding of the material. For this reason, we focused our study on the humorous extension of FPM (2022). Dominek's (2022) flow-based pedagogical model offers a complex approach to the learning experience, in which not only the structure of the curriculum and learning objectives play a key role, but also the learner's psychological involvement, the quality of teacher-student interaction, and the affective learning environment. The model consists of eight dynamically interrelated components: the balance between challenge and ability, clear goals, immediate feedback, the experience of control, and the promotion of concentration, creativity, playfulness, and humour. The role of the latter is particularly exciting from a flow perspective, as it simultaneously fulfils affective, relational, and motivational functions.

According to the model, the primary role of teacher humour is to create a tension-free learning environment, promote student engagement, and improve the quality of the teacher-student relationship (Dominek 2022). Humour is therefore not just an entertaining element, but a targeted, structured tool that helps students develop a flow experience. A fundamental condition for flow is that students are psychologically open to learning activities, immersed in the task, and free from anxiety or boredom. Humour, as a form of classroom interaction, can break down inhibitions, create a so-called safe space for making mistakes (Héjj 2013), and reduce performance anxiety caused by perfectionism. According to Dominek, humour does not primarily appear in the lesson plan, but rather as a teacher's personality trait and an integral part of their pedagogical culture.

## Humour and creativity as shared emotional dimensions

In Dominek's model, humour and creativity are closely related components. Both enhance the experiential nature of learning and share emotional involvement, associative thinking, and a joyful approach. Creative problem solving and a humorous approach both stimulate divergent thinking in learners, which is particularly important in the development of the flow experience (Sawyer 2011). This is particularly evident, for example, in project-based, playful, or dramatic teaching methods, where teachers are free to use wordplay, ironic remarks, or situational humour to maintain students' attention and level of engagement. Humour is thus not only a cognitive but also an affective trigger, acting as a catalyst in the flow process. The flow-based pedagogical model allows humour to be systematically incorporated into lesson planning. Here are some examples of the practical application of the model:

During the introduction phase, humorous questions, anecdotes, memes, or situational games at the beginning of the lesson can help students reframe their thinking and reduce the psychological rigidity that comes from conformity at school.

During explanation and practice, the teacher can interpret the material humorously, give ironic examples, or draw on popular culture familiar to students to aid their understanding of concepts.

During reflection and feedback, humorous feedback and rewarding comments can alleviate the fear of making mistakes and maintain a playful yet productive atmosphere.

In FPM, the temporality of flow – the phenomenon where the learner loses track of time and becomes completely immersed – is closely related to the focus of attention. Teacher humour is an effective tool for recalibrating this attention. Particularly in digital learning environments, where attention often wanders, the occasional yet deliberate use of humour (e.g., a digital quiz with a humorous question) can bring the learner back into the active space of the learning process.

## Empirical evidence and context

Numerous quantitative and qualitative studies serve as the basis for a systematic examination of the relationship between flow and teacher humour. Below, I describe three important and relevant empirical studies that clearly illustrate the practical validity of FPM. Machlev and Karlin (2016) show that relevant and appropriate teacher humour significantly increases students' self-reported learning outcomes, which is consistent with the Instructional Humour Processing Theory (Wanzer et al. 2010). Although objective measures of learning did not always improve when humour was not related to the subject matter, students' perceived learning experience increased significantly. Lu'mu et al. (2023) conducted a study on perceived related humour involving 367 higher education students and found that when a teacher's humorous content is related to the subject matter, it strengthens the quality of the teacher-student relationship (TSRQ), which in turn mediates students'

learning commitment. This effect was particularly strong among those who themselves have a strong sense of humour. A 2021 study conducted in an online environment found that modules that spiced up the curriculum with humour increased students' cognitive, emotional, and behavioural engagement, including in the area of self-regulation of learning activities (Summerfelt, Lippman, and Hyman). This confirms that humour is not only present in teaching but also contributes specifically to creating the conditions for flow—attention, motivation, positive emotions—especially in a digital environment. I present the essence of the above research in a summary table (Table 1).

| Finding  | Implicit connection to FPM  |
|--|---|
| Relevant humour → perceived learning (Machlev and Karlin, 2016)        | Supports clear goals and feedback components in a humorous context                  |
| Humour enhances TSRQ → better performing students (Lu'mu et al., 2023) | Strengthens connection and affective security components                            |
| Online humour → greater engagement (Summerfelt et al., 2021)           | Supports the development of digital attention and motivation through humorous tools |

Table 1: The relationship between flow and teacher humour (source: own compilation)

This empirical background confirms that humour in FPM is not an optional extra but a strategic element that specifically targets the components of flow. The role of teacher humour in the development and maintenance of student flow experience has often appeared as an implicit or incidental element in pedagogical research. However, FPM (2022) offers a new approach: it creates an opportunity to interpret humour in a structured way, from both a didactic and psychological perspective, as a factor that influences the learning process and can be developed. Building on this approach, I present a theoretical framework model that enables the integrated educational application of humour and flow.

The theoretical starting point of the Flow-Humour Framework Model (FHFM) is based on the connection between flow components and the pedagogical functions of humour. The aim of the model is to show how consciously applied humour can support the development of the flow experience in the educational process, both for students and teachers. The FHFM is based on two main theoretical foundations. The first is the system of flow components defined by FPM (2022), which includes the following elements: clear goals, balance between challenge and ability, concentration, sense of control, immediate feedback, connection, playfulness, and creativity. Together, these factors create the optimal psychological state in which the learner or teacher is fully immersed in the activity, and their internal motivation is strongly activated. The second theoretical pillar is the system of pedagogical functions of humour, which was established by the research of Wanzer et al. (2010) and Banas et al. (2011), among others. This approach distinguishes three main functions of humour:

- Instructional humour is related to the curriculum and aims to make the learn-

ing process more understandable, enjoyable, and motivating.

- Affiliative humour serves to build relationships: it creates a safe, supportive atmosphere, promotes group cohesion, and reduces learning anxiety.
- Self-reflexive humour is based on the teacher's self-irony and self-criticism, and conveys to students that making mistakes is a natural part of human development.

The FHFMM integrates these two systems and examines how individual humour functions contribute to the realisation of different flow components. According to the model, instructional humour helps to formulate clear goals, as humorous examples and illustrations make it easier to establish the direction of learning. The balance between challenge and ability can best be strengthened through self-reflective and affiliative humour: these relieve performance pressure and support safe experimentation. Concentration is maintained by playful, attention-grabbing humour, which breaks up monotony and keeps cognitive interest alive. The experience of control is facilitated by permissive, free humour, which allows students to try things boldly and teachers to handle classroom situations more flexibly. The process of immediate feedback can be supported by humorous assessment, which reduces the fear of making mistakes while still providing information about performance. The connection component is best achieved through affiliative humour, which strengthens the teacher-student relationship through shared laughter and understanding. Playfulness is enhanced by creative, spontaneous humour, which allows for improvisation and experiential learning. Finally, creativity is fostered by absurd, metaphorical, and associative humour, which inspires new perspectives and flexible thinking.

Overall, FHFMM shows that humour is not merely a supplementary element of teaching but a key catalyst for the flow experience. When used appropriately, humour not only relieves tension but also increases engagement, supports self-reflection, and creates optimal psychological conditions for learning.

## **The structure of the flow–humour framework model**

The Flow–Humour Framework Model (FHFMM) consists of three interrelated modules that describe the relationship between the pedagogical application of humour and the development of the flow experience.

The first module is humour input, which includes factors originating from the teacher and students. This includes the teacher's personality, sense of humour, and situational awareness, as well as the students' humour preferences, for example, whether they prefer affiliative (connective, positive) or sarcastic (critical, ironic) humour. In addition, the context of the curriculum is also decisive, as not every topic or learning situation allows for the natural and effective integration of humour.

The second module, pedagogical interaction, describes the actual use of humour and its dynamics in the educational process. In this section, humour is presented as a didactic tool: it can help with explanations, practice, or feedback. The

quality of interaction also plays an important role, i.e., how the teacher responds to student feedback and whether a shared experience of laughter is created. The timing of humour is also an important factor: it matters at what stage of the lesson humorous elements are incorporated—for example, at the beginning of the lesson to lighten the mood, or when dealing with difficult content to reduce tension.

The third module contains a description of the flow outputs. According to the model, the conscious, context-appropriate use of humour increases students' perceived enjoyment, improves the quality of the teacher-student relationship, and enhances active participation in class. The latter is manifested, among other things, in students being more willing to answer voluntarily, participating more courageously in tasks, and engaging more deeply in the learning process.

Overall, the FHFMM shows that teacher humour, when used appropriately, can not only make the classroom atmosphere more enjoyable but can also contribute to the development of the flow experience, thereby supporting a motivated, active, and positive learning experience. The FHFMM therefore argues that humour should not be treated as an optional addition to pedagogy, but a strategically important tool for facilitating learning flow. When used consciously, a humorous teaching style can support student engagement, emotional security, and ultimately a deep learning experience.

## **Practical application and educational implementation**

Extending the FPM with humour is not only promising on a theoretical level, but also feasible in classroom practice. In the following, I will show how educators can use the model in planning, educational interaction, and professional development. Traditional lesson planning templates rarely include emotional components or motivational building blocks. The Flow-Humour Framework, on the other hand, allows educators to incorporate the conscious use of humour into their planning.

The practical implementation of the FHFMM is described by two main components: phase-by-phase integration and the activation of student humour. Together, these show how humour can be consciously incorporated into classroom processes to promote a flow experience. The first part, phase-by-phase integration, presents the use of humour appropriate to different stages of the lesson and its flow goals. At the beginning of the lesson, a light-hearted anecdote related to the topic or even a humorous meme can help to set the mood and attract attention. During the explanation phase, the teacher can use puns or cultural references to relieve the students' tension, thereby maintaining their attention and balancing the level of challenge. During the practice phase, humorous elements—such as competitive games or funny examples—encourage active participation and concentration. In the feedback phase, criticism softened by humour provides an opportunity to experience control while creating a safe environment for making mistakes. Finally, in the closing and reflection phase, an instructive joke or a humorous element contributed by the learners helps bring emotional closure and ensures the learning experience is remembered as a positive one. The second part, activating student

humour, aims to actively involve students in creating and processing humorous content. One form of this could be for students to look for humorous examples related to a given subject, for example, in a biology meme contest. In language classes, it is particularly effective to have students collect jokes, puns, or linguistic humour, as this also develops linguistic creativity and cultural sensitivity. At the project level, students can create humorous campaign films, short parodies, or presentations that not only strengthen their personal connection to the subject matter but also promote group cohesion through shared laughter.

Overall, the conscious, phase-differentiated use of humour and students' involvement in humorous creation promote the flow experience, increasing motivation, participation, and positive emotional engagement in the learning process.

The essence of flow-based teaching is that the instructor is not merely a knowledge transmitter, but also a facilitator and emotional mentor who supports the learning process not only professionally, but also personally. In this approach, humour plays a prominent role as a tool for authentic teacher presence and connection. As Lizzio and colleagues (2002) emphasise, humour can be an effective way for teachers to reinforce their credibility and approachability in their students' eyes, while relieving classroom tension and promoting a positive learning atmosphere.

The Flow-Humour Framework also suggests a shift in teaching styles. Instead of the traditional explanatory and controlling role of the teacher, the teacher becomes a companion and a laughing partner. The evaluative, error-correcting position is replaced by an encouraging, humorous feedback attitude, in which feedback is not about punishing mistakes but about supporting the learning process. Instead of the role of a formal role model, an authentic mentor capable of self-irony appears, who accepts his or her own human fallibility and thus creates a safe emotional environment for students. This shift is particularly important for adolescent learners, for whom their personal relationship with their teacher decisively influences their motivation to learn and their immersion in learning. The relationship between humour and teacher training based on the Flow-Humour model points to new directions for development in teacher training institutions. The goal is for students to learn the conscious and ethical use of humour in educational situations.

One tool for this is humour-sensitive pedagogical training, which helps participants become aware of their own humour style (e.g., affiliative or aggressive humour) and gives them the opportunity to try out humour as a connection tool in situational exercises.

The second development element is the incorporation of educational situation exercises, such as microteaching, where the explicit goal is to attract attention through humour. Students then evaluate each other's work in a peer-review reflection, discussing which forms of humour proved effective and which may have been counterproductive.

The third dimension is the development of ethical awareness, which aims to explore the boundaries of humour. Students work together to determine when humour is constructive and when it can be hurtful, paying particular attention to students' sensitivity, cultural differences, and personality differences (e.g., introverted students).

The fourth element is flow reflection journals, which serve to develop self-re-

reflection: students analyse, on a weekly basis, when they were able to combine elements of flow and humour during teaching, when they were not, and the reasons for this. This teaches teacher candidates to consciously observe their own teaching states and maintain the flow experience during pedagogical practice.

It is important to emphasise that flow is not the privilege of students alone. Teachers can also experience it if teaching does not become routine or a chore. Humour, especially in its spontaneous and self-reflective form, can play a key role in preventing teacher burnout (Abel 2002). Autonomy in content creation, mutual humour and attention with students, and the experience of teachers and students laughing together at the end of a class – both at the success of learning and human connection – contribute to the experience of teaching flow.

## Summary

The practical application of the Flow-Humour Framework Model is not only possible but also increasingly necessary in education. The structured, purposeful use of humour can support student engagement, affective security, and creative learning situations. All this can result in experience-based, meaningful education not only for students but also for teachers.

The aim of this study was to supplement and enrich the FPM (Dominek 2022) with a systematic examination of teacher humour. The relationship between the two concepts – flow as an optimal learning experience and humour as an affective-cognitive tool – has long been present in everyday education, but no integrated, empirically based theoretical model has been developed to date. This study attempted to address this gap. Based on the theoretical review and the development of the Flow-Humour Framework Model, it can be concluded that teacher humour is not only an aesthetic or social element, but also a didactic tool that can support the various components of flow: attention, motivation, sense of control, and connection. The flexibility of the FPM allows for the conscious integration of humour into the system of classroom goals and feedback. Humour has a multi-level effect: cognitive (attention, association), affective (positive emotion), social (relationship building), and even teacher self-reflection. Empirical research (Machlev and Karlin 2016; Lu'mu et al. 2023; Summerfelt et al. 2021) supports the idea that the relevant use of humour by teachers improves the learning experience, engagement, and teacher-student relationships, thereby promoting a state of flow. The practical application of the Flow-Humour Framework Model can have a significant impact on lesson planning across several areas of education, as teachers can consciously incorporate humour as a planning element, not only to enhance mood but also to support learning. The use of humour promotes the development of an authentic, credible teaching style, which is particularly important among adolescent and young adult learners. Humour-sensitive pedagogical training, microteaching, and reflection journals help teacher candidates learn how to use humour in a targeted, ethical, and effective way. The conscious use of humour in the digital space (memes, quizzes, short humorous videos) can significantly increase student engagement.

The Flow-Humour Framework is conceptually promising, but its applicability may be limited by the subjective nature of humour, which can be inspiring to one student and distracting to another. Humour can easily become offensive or misunderstood if we do not pay attention to the diversity of the student group. Effective use of humour requires pedagogical and interpersonal skills that are not automatically developed in all teachers. The present model was developed on theoretical grounds – extensive quantitative studies are needed to test and confirm it.

## Concluding thoughts

Learning is not just a cognitive process, but a human experience, and humour is one of the most powerful tools for supporting this experience – if used consciously and ethically. The convergence of humour and flow in education is not just a methodological issue, but also a shift in perspective. The experiential nature of learning, affective engagement, and a positive emotional climate are all factors that determine whether education can truly become a developmental, self-fulfilling process. When used consciously and with pedagogical sensitivity, humour is not a tool for frivolity, but a catalyst for human connection and cognitive openness. Flow is the psychological space in which the learner and the teacher jointly experience the inner meaning of learning, the joy of being present in the here and now.

Research findings suggest that humour and flow are not mutually exclusive but mutually reinforcing processes. Humour can relieve performance anxiety, promote self-reflection, and foster a sense of social security, creating the psychological prerequisites for a state of flow. Flow, in turn, maintains motivation, strengthens interest, and deepens knowledge acquisition. In this way, the learning space becomes not merely a place for knowledge transfer, but an experiential and emotional environment where laughter and learning both lead to understanding.

One of the keys to the pedagogy of the future lies in our ability to reinterpret the role of the teacher – not merely as a transmitter of knowledge, but as an experience organiser, emotional facilitator, and creative partner. Integrating humour and flow into this approach can help education regain its humanistic character: a space for development, joy, and human connection. Learning is thus not a duty, but a shared discovery; not just an intellectual, but an emotional adventure – a process in which the acquisition of knowledge itself becomes a source of joy.

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