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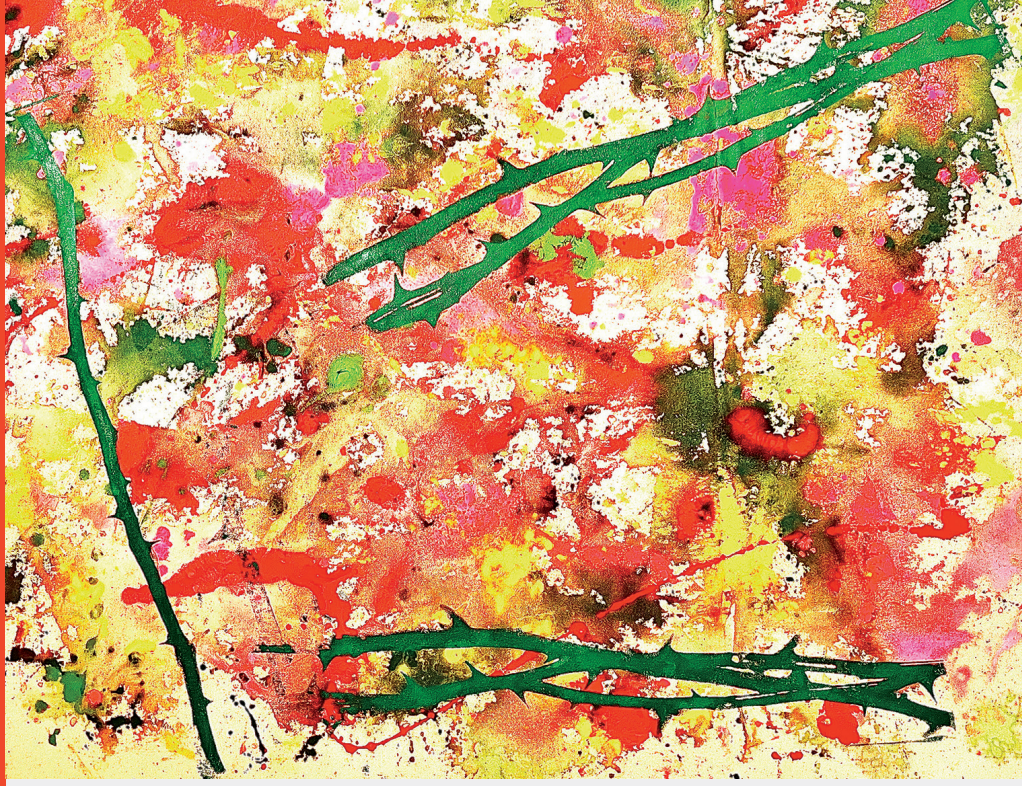

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Contents

Chapter 1
Introduction

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Wellbeing in the teachers' profession: Theoretical Considerations and Multi-Cultural Research in Europe

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Abstract
The article commences by introducing the "Teaching to Be" project, an initiative under the European Policy Experimentation, which focuses on supporting teachers' professional growth and wellbeing in the realm of social and emotional learning. Subsequently, it delves into a presentation of various well-being models and approaches to professional wellbeing. This highlights the diversity of theoretical perspectives within this domain, some of which harmonize with each other while others diverge. Simultaneously, it conscientiously acknowledges blind spots and proposes potential novel, alternative pathways for the future. The article serves as a prelude to fundamental deliberations that have notably influenced the "Teaching to Be" project as well as our future-oriented considerations. In this project, there is a dedicated focus on the well-being of teachers in their profession.

1 Introduction – The Project Teaching to be

An Overview
Teachers' stress and burnout are significant concerns throughout Europe and globally, posing severe challenges to teachers' health and school systems. Additionally, the increased awareness of the key role of social and emotional abilities in successful teaching and learning presents new challenges for teachers in maintaining their wellbeing and delivering effective teaching. To foster teachers' *professional wellbeing*

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and promote supportive practices, the European Policy Experimentation project "*Teaching to Be: Supporting teachers' professional growth and wellbeing in the field of social and emotional learning*" (T2B) was simultaneously implemented in eight European countries, namely, Lithuania, Latvia, Slovenia, Portugal, Italy, Spain, Austria, and Norway.

The project T2B (2021-2024) aimed to support school teachers' wellbeing by exploring and implementing innovative professional development practices. The project developed professional wellbeing materials for teachers:

- an Online Course on Teachers' Professional Wellbeing (OWC), aimed at developing teachers' practical skills for maintaining their wellbeing through self-regulated and game-based learning;
- a Teacher's handbook to provide practical opportunities to increase awareness, knowledge and skills to facilitate teachers' wellbeing through introspection, reflection, applying new practices, and collaboration within the school community.

For school leaders and educational policymakers, a Participatory Action Research (PAR) Guide was developed to assist school communities in collaboratively addressing wellbeing at schools through developing new professional abilities for teachers and school leaders.

The key innovation of the T2B project was the development and implementation of the digital game addressing different dimensions related to teachers' professional wellbeing. This interactive course offered space for the development of teachers' social and emotional skills including self-awareness and management, social awareness and relationship skills, as well as problem solving and responsible decision-making. Moreover, the factors related to organisational factors at work were addressed including work engagement, support from colleagues and leaders, self-efficacy etc. The OWC consisted of 12 modules which could be conducted individually or with colleagues. When playing the game, teachers were asked to reflect on questions related to the different themes relevant to teachers' professional wellbeing.

The aim of the project was to investigate the effect of the digital intervention on teachers' professional wellbeing using a mixed-methods research design. In the first year of the project, the content of OWC and Teacher's handbook was developed and tested through a qualitative Participatory Action Research (PAR). Thus, the T2Be materials were co-created by teachers involved in the project. In the following year, the video game was created and in the second year of the project, the OWC and teacher's handbook was implemented. The effect of the intervention was measured quasi-experimentally, involving teachers of experimental and control groups and applying pre- and post-test surveys before and after the implementation of the intervention. Validated instruments on dimension

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of teachers' professional wellbeing including self-efficacy, job satisfaction, stress, burnout, resilience, turnover intentions etc. were measured before and after the implementation of the intervention. Finally, based on the results, policy recommendations for each country were developed.

2 Intention of the Anthology and conceptual approach to wellbeing

This anthology includes six selected papers from six of the countries participating in the project. The focus of this anthology is primarily on conveying the insights, impressions, thoughts and reflections that have arisen both *from* and *within* the project over time. This anthology offers several additional insights. The concept of the anthology is based on the idea that *during* and *after* a project (or, *near* the end) – depending on the country and the experiences – very different insights and knowledge emerge from the project. The intention is to provide these individual perspectives with the necessary space to illuminate specific and distinct aspects and areas.

Considering the multitude of contemporary studies as well as reflecting on numerous research conducted over decades, it can be concluded that, to date, there is no comprehensive and universally accepted definition of *wellbeing* or *well-being*. Indeed, the historical connotations of fundamental terms like *mental health*, *wellness* or *well-being* have been negatively biassed. Traditional usage tends to define health in terms of the absence of illness, rather than acknowledging the presence of wellness, health, and 'well-being' (as spelled out by Ryff & Singer, 1996, p. 14). *Health* and *well-being research* has predominantly focused on dysfunction or on mere positive functioning.

As these opening lines and reflections reveal, in our project *Teaching to Be*, we articulate the idea and concept of *wellbeing* as a unified term (without a hyphen). However, its representation varies, manifested as either 'Wellbeing,' or 'Well-Being' with uppercase 'W' and 'B,' or 'wellbeing,' 'well-being' with lowercase 'w.' Occasionally, a hyphen *bridges* the words, underscoring their *interconnectedness*, or they are combined to accentuate the concept's *cohesion*. The precise implications of these differing spellings – whether they represent unique *theoretical* constructs or are simply stylistic choices without deeper meaning – remain uncertain. In this anthology, we will predominantly use *wellbeing* or *well-being* or other forms as 'wb' in relation to the project. So 'wb' represents various spellings, which theoretically do not highlight a specific distinction. However, alternate spellings may sometimes convey a nuanced or specific meaning. In this manner, we are currently avoiding a theoretically clear (and hopefully clarifying) use of the concept. However, we hope to provide determinations of phenomena that elucidate the

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construct of wb and introduce the associated idea. In the context of the models and theories, we will strive to maintain the respective spelling of the word to distinguish the theoretical approaches.
These viewpoints either precede a project, reflecting the clarity of theoretical frameworks from its inception, or emerge post-project, *shedding light* on the evolution of new and diverse insights. Let's attempt to gain a brief overview of different approaches and thoughts about the topics before highlighting the papers from the countries in the following chapters.

3 What is Wellbeing?

Born from the *Teaching to Be* project, this anthology seeks to encompass a broad array of perspectives, providing an initial exploration into the myriad of nuances. This endeavor is particularly relevant given the current absence of a universally accepted definition of wellbeing in its various spellings. The subject is deeply intertwined with health, mental health, occupational health psychology and other related fields. The challenge lies in *linking* wellbeing with these abstract constructs, which adds complexity to the task of articulating a clear and comprehensive description of the phenomenon, transcending beyond just a simple definition.
The definition of *Wellbeing* in *The European Framework for Personal, Social and Learning to Learn Key Competence*, or simply *LifeComp* by Sala et al. (2020, p. 36), encompasses the "pursuit of life satisfaction, the care of physical, mental, and social health, and the adoption of a sustainable lifestyle." Well-being is one of the nine essential factors in the framework, and the introduced concepts demonstrate a close relationship with all the other factors in Figure 1, making the definition of well-being not any easier. It is widely acknowledged, as reflected in the *LifeComp framework*, that humans possess three inherent needs that must be fulfilled for their health and wellbeing. To emphasise, the needs were established *within* and *for* the *LifeComp framework*. The framework outlines these needs as follows:

Autonomy: The need to have control over one's actions and decisions.
Competence: The need to achieve desired results and gain a sense of mastery.
Relatedness: The need to establish connections and relationships with others.

Sala et al. (2020) use the spelling *wellbeing* in their conceptualization of the *LifeComp framework*. The extent to which these needs are fulfilled is determined not just by individual competence but also by the requirements, barriers, and opportunities presented by the social, cultural, and economic environment. It also encompasses *physical wellbeing* and the cultivation of healthy habits. *Cognitive wellbeing* is crucial, as it involves stimulating and fostering mental flexibility, curiosity, and the enjoyment of lifelong learning. Additionally, *emotional wellbeing* is – as Sala et al. (2020) explicitly mentions – vital, focusing on developing

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autonomy, self-awareness, empathy, and the ability to comprehend, feel, manage, and regulate personal emotions, thoughts, behaviours, and actions. It also involves nurturing a sense of meaning and worth. Moreover, *social wellbeing* is enhanced by fostering sympathy, understanding, and perspective-taking to comprehend the needs of others.

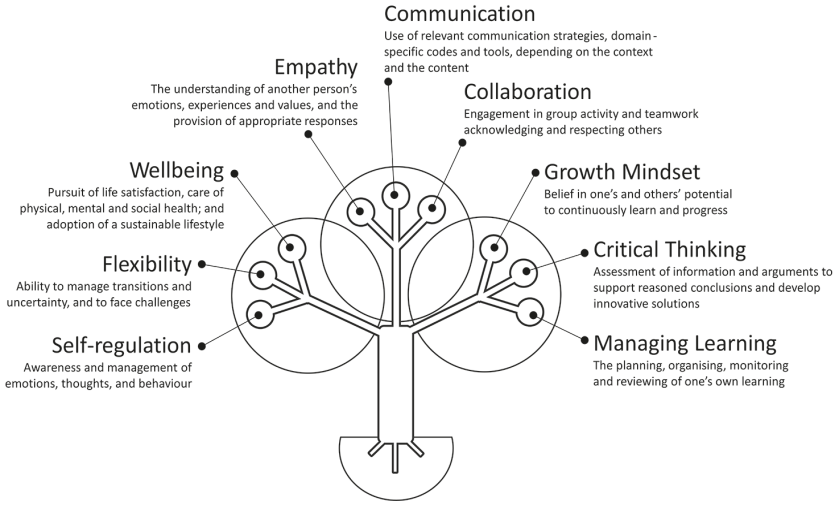

Figure 1: LifeComp by Sala et al., 2020 (self-drawn illustration)

Aspects focusing on *awareness* can also extend to personal health, wellbeing, and life satisfaction. Those aspects that aid in *understanding potential wellbeing risks* emphasise the capacity to access, comprehend, assess, and apply reliable health information for making decisions related to disease prevention, healthcare, and health promotion. This involves a more cognitive dimension of wellbeing. Thirdly, there is the *adoption of a sustainable lifestyle* that respects the environment, as well as the physical and mental well-being of oneself and others. This aspect underscores the significance and advantages of engaging in prosocial behaviours for health and wellbeing. Consequently, it enables us to provide assistance to others and seek help when needed. Certainly, there are *hedonic motives* in wellbeing, which seek pleasure, enjoyment, comfort, and satisfaction. Conversely, *eudaimonic motives* in wellbeing aim for excellence, personal growth, meaning, and authenticity, contributing to wellbeing in different ways (Sala et al., 2020). The *LifeComp framework* holds significant importance for the project as it establishes "an official agenda for social and emotional development across Europe" (T2B, 2020, p. 77).

doi.org/10.35468/6091-01

On the other hand, Conceição and Bandura (2008, p. 2) fundamentally state: "Wellbeing is difficult to define but it is even harder to measure." They categorize the measurement of wellbeing into "objective and subjective measures," a view shared by other researchers like Axford et al. (2014), Veenhoven (2007) and Fritz-Schubert (2017). Veronese et al. (2017, p. 1161) specifically address this distinction, noting that in terms of operationalizing the construct, "a range of quantitative indicators have been used to evaluate levels of individual well-being." In this context, Veronese et al. (2017) developed a *Conceptual Model of Individual Well-Being* (see Figure 2), wherein *well-being* (written as such) is defined in terms of good mental functioning. This encompasses all assessments (both positive and negative) that individuals make of their lives, as well as their emotional reactions to life experiences. This concept aligns with the ideas proposed by Diener et al. (2006). Fundamentally, based on this approach, well-being is divided into three primary components: Life satisfaction, affect, and eudaimonic well-being. This methodology integrates a collection of relatively measurable variables (termed "determiners") alongside more qualitative dimensions, or "sub-components." To effectively operationalize the construct in this context, a variety of quantitative indicators are essential for accurately assessing individual well-being. As a result, these elements are categorised into both objective and subjective measures, as delineated in Conceição & Bandura (2008). Such a categorization calls for an *analytical* approach that considers both one-dimensional and multidimensional perspectives. To briefly summarize, Veronese et al. (2017) uses the spelling *well-being* in their conceptualization.

Objective Measures can be effectively conceptualised and *quantified* as both *One-dimensional Wellbeing* (OOW) and *Multidimensional Wellbeing* (OMW and the term Wellbeing is written in this manner here). The OMW-approach suggests that wellbeing is multifaceted, embracing every aspect of human life. In the realm of OOW, objective indicators often point to income and growth, which typically and eventually results in increased consumption of goods and services, alongside other objective indicators of life quality. McGillivray and Clarke (2006, p. 4) describe Subjective Wellbeing Measures (SWB) as synonymous with "happiness." Subjective well-being involves a multidimensional evaluation of life, including cognitive judgements of life satisfaction and affective evaluations of emotions and moods" – this is similar to what is found in the works of Argyle (2013). Regarding *objective* indicators, measurements typically include economic, environmental, and monetary variables. On the other hand, subjective measures have primarily been developed within the realm of social sciences. This, in turn, frequently results in the neglect of prosocial aspects, which as ideas and constructs, stem from the humanities – a point we will need to revisit in further detail a little later.

doi.org/10.35468/6091-01

Figure 2: Conceptual Model of Well-Being from Veronese et al., 2017 (self-drawn illustration)

Within the context of *schools*, it is essential to ensure that emotions, social and prosocial abilities, and well-being are central to teaching and learning. Research indicates that work-life imbalance adversely impacts teachers' ability to educate effectively (Moeller et al., 2018). Teachers who experience emotional exhaustion are vulnerable to developing cynicism and callousness, and they may eventually reach a point where they feel they have little to contribute or gain from continuing in the profession, leading them to exit the teaching workforce (Jennings & Greenberg, 2009). In many instances, teachers' stress and burnout are linked to factors such as work overload, a sense of meaninglessness, heightened accountability demands, loss of self-responsibility, lack of autonomy and decision-making authority, authoritative management and leadership styles, and a negative school climate (Brackett et al., 2010; Carver-Thomas & Darling-Hammond, 2017; Elbertson et al., 2010). Thus, the study of well-being has often surged alongside the positive psychology movement, which has placed a widespread emphasis on human strengths and the pursuit of a high-quality life. In positive psychology, well-being is often understood as a guide to living a *better* life (Auhagen, 2008), similar to the educational goal of *well-being*, which involves the concept of a *happiness subject* in schools (Fritz-Schubert, 2017).

Subjective well-being (SWB), as described by Diener, Lucas, & Oishi (2018), closely aligns with the overarching term *happiness* and consists of – as evident in Veronese' work – of three components: Life satisfaction, positive affect, and negative affect. In such a context, the potential for applying the approach of objective measures is relatively quickly exceeded. Furthermore, emotions are often oversimplified in quantitative measurement, categorised solely into negative and positive orientations, without acknowledging their *both and* nature. The quantitative exploration of well-being is certainly necessary but also not sufficient. From

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this perspective, a different model has to be introduced to understand the concept of wellbeing from an (more or less) alternative and/or complementary standpoint. Or in other words, at this point and with reference to Ryff & Keyes (1995, p. 725), the "provisional conclusion" can be drawn that "there is more to being well than feeling happy and satisfied with life." Likewise, well-being cannot be solely assessed through objective indicators, as indicated by *eudaimonic well-being* – and the way of understanding elements of subjective well-being (SWB). Gardner & O'Driscoll (2007) emphasise that *subjective well-being* extends beyond the mere absence of ill-health (and transcends any so-called objective assessment).

Subjective well-being encompasses generally *one's personal feelings* and *cognitive evaluations*, categorising the comprehension of well-being into *cognitive* and *affective* components within this framework (Fritz-Schubert, 2017). Research suggests also that persons learn more efficiently in safe, supportive environments – settings where one experiences *care*. The understanding of subjective well-being highlights how teachers' socio-emotional competencies and prosocial literacies[1] can influence the learning environment and shape learners' emotions, actions, and behaviour, as noted in *The Prosocial Classroom Model* by Jennings (2015; Jennings et al., 2013). As depicted in Figure 3, which has been further developed by the authors of this paper, teachers' competencies, abilities, literacies, and *well-being* directly *affect* the learning environment (teacher-student relationships, classroom management and leadership, and the enactment of prosocial and social-emotional learning). This, in turn, leads to a *healthy classroom* and *healthy school climate* and ultimately successful socio-emotional, prosocial, and academic outcomes for students. For instance, in a recent study of 300 classrooms with 6014 students and 300 teachers it was found that teacher burnout was associated with poorer student-reported classroom climate (Jensen & Solheim, 2020).

Moreover, poor classroom climate has also been found to be associated with higher teacher turnover (Jensen, 2021), indicating that teachers are also affected by students' wellbeing, indicating as the *Prosocial Model* suggests, that there are also reciprocal associations between teacher wellbeing and students wellbeing. *Social emotional learning* (SEL) as concept means "the process by which each student develops their capacity to integrate thought, emotion and behaviour to achieve and accomplish important social tasks" (Ferreira et al., 2020, p. 22; Martinsone, 2016; Martinsone & Vilcina, 2018). *Prosocial learning* (PSL), which are rooted in basic emotions (Wiesner, 2020), are distinct from social learning and give rise to acts of kindness, compassion, providing solace to those in distress (empathising with others), offering assistance, sharing, cooperation, and collaborating with others (Carter & Ellis, 2016).

1 The concept of literacies is elaborated upon in Chapter 6.

doi.org/10.35468/6091-01

These actions are typically directed towards others without the expectation of rewards or being influenced by punishment or rewards. Person's "prosocial tendencies are associated with their well-being" (Morelli et al., 2019, p. 86). Prosocial learning aims to enhance emotional regulatory abilities, which in turn play a crucial role in fostering empathy. Study results suggest that integrated emotion regulation predicts prosocial actions and behaviour in the classroom, both directly and by influencing empathy (Benita et al., 2017; Dentoni et al., 2018). *Prosociality*, as described by Eisenberg (2010), signifies a profound concern for others and an affective response that arises from understanding or grasping another person's emotional state or condition. On the other hand, *social* orientation often pertains to individuality and involves adopting the perspective of others, which is primarily a cognitive process – similar to the emphasis on 'mental' in 'mental health,' which also encompasses (primarily) *cognitive* processes and judgements.

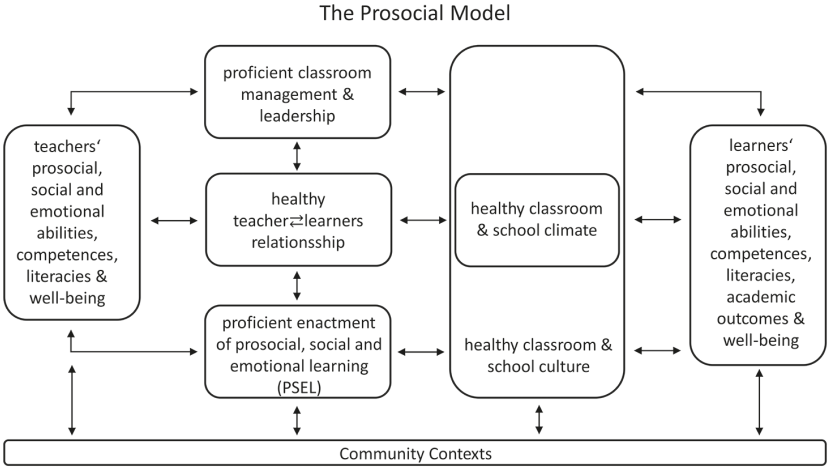

Figure 3: The Prosocial Model, based on Jennings & Greenberg, 2009 and adapted by the authors (self-drawn illustration)

Teachers and students' well-being is closely related to a positive school climate, as Martinsone et al. (2023) noted. Firstly, within the *Prosocial Model*, we consider similar to Jennings & Greenberg (2009) that teachers' competencies, abilities, and literacies as vital contributors to the cultivation of nurturing teacher ⇄ learner relationships. A teacher who acknowledges a student's well-being is better equipped to respond effectively and proficiently to the learner's needs. But generally speaking, social-emotional competencies and literacies are not usually taught

doi.org/10.35468/6091-01

and developed in teacher pre-service courses and continuous professional development courses. Secondly, as Jennings & Greenberg (2009) points out, teachers with a deeper comprehension of well-being and personal growth are likely to exhibit more proficient classroom management and leadership. Such teachers are inclined to be proactive, utilising their emotional expressions and verbal support to foster enthusiasm and love and enjoyment for learning, as well as to guide student behaviours and actions.

Additionally, emphasising the positive influence that school management and leadership can exert by cultivating a supportive school environment and implementing stress management techniques has been proposed (Gray et al., 2017), and research has found that when teachers perceive support from school management, they report lower degree of burnout (Jensen & Solheim, 2019). Moreover, in the same study support from management was found to have an indirect association with student reported classroom climate through teacher burnout (Jensen & Solheim, 2019). There is also evidence suggesting that organisational factors, such as inadequate communication among colleagues, overall job dissatisfaction, or presenteeism, are linked to reduced teacher well-being (Kidger et al., 2016).

Thirdly, Jennings & Greenberg (2009) suggest that teachers with a deeper grasp of well-being are better positioned to proficiently integrate social, prosocial, and emotional curricula. This is because they serve as exemplary role models for the desired social, prosocial and emotional behaviors and actions. Finally, the diverse community contexts both within and outside the classroom and school can potentially impact teachers' competencies, abilities, and literacies. An important characteristic of socially and emotionally competent teachers is that they possess a high level of self-awareness. They are aware of how their emotional expressions impact their interactions with others, as noted by Jennings & Greenberg (2009) and they know how to manage their own wellbeing. At this point in this article, it becomes evident how differently the idea and concept of wb can be understood, as the model of well-being by Jennings & Greenberg (2009), adapted by the authors, is compared to Veronese et al.'s conceptual model of well-being (2017). Although the two concepts differ significantly, both are denoted by the same term, (here) *well-being*.

It is worth noting that Jennings & Greenberg (2009) and Jennings (2015) use the spelling *well-being* in the conceptualization. So, in the sense of Schlick (1933), the unique nature of well-being creates a *distinct scientific unrest and ambiguity* because, fundamentally, it gives rise to worldviews and world orientations from the conceptualization of wb and because it incites a pursuit, namely, the pursuit of understanding the phenomenon.

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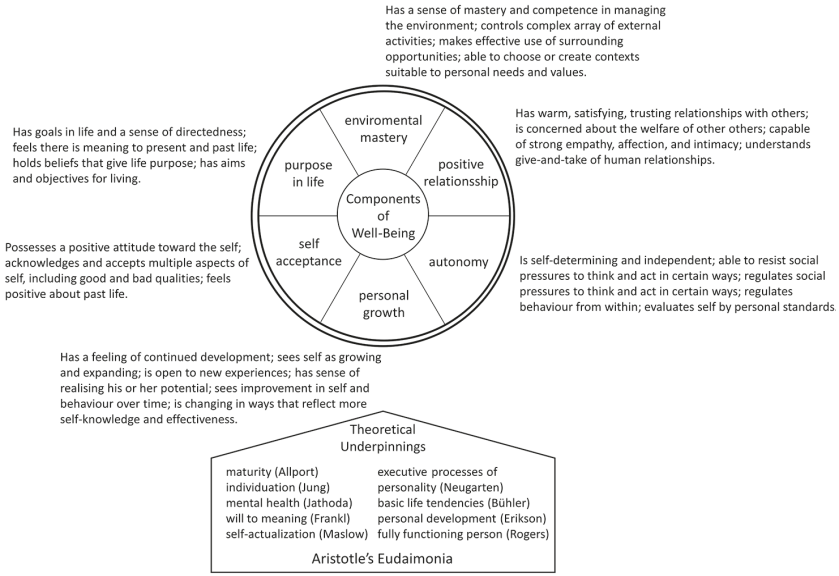

Figure 4: Core dimensions of psychological wellbeing and their theoretical foundations, based on Ryff (2023) and adapted by the authors (self-drawn illustration)

The *Eudaimonic Well-Being Model* of *core dimensions* proposed by Ryff (2023) is constructed by integrating theories from clinical, developmental, existential, and humanistic perspectives, while also being influenced by Aristotle's concept of eudaimonia as the ultimate human good. This comprehensive model encompasses six core dimensions of well-being, each rooted in a rich theoretical foundation, making it a model suitable for integrative scientific exploration (see Figure 4). Eudaimonic well-being, therefore, aims at the conditions for a successful life and the associated human strengths. The Aristotelian concept of Eudaimonia translates to a good *life* or realising one's potential. Eudaimonic well-being represents a content and fulfilling life, where well-being is not a final state but rather a *process* of leading a good life (Fritz-Schubert, 2017).

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4 Professional Wellbeing

Another facet of wellbeing, commonly known as *professional well-being* (written as *wellbeing* by Gardner & O'Driscoll, 2007, p. 15, as *well-being* by Flynn & Messias, 2020, p. 59), is closely linked to the fact that a substantial portion of adults' lives is devoted to work, rendering it a central component within this dimension of wb. *Professional well-being*, as described by Pakhol (2020, p. 3), is "an integral indicator of optimal functioning of the individual in the professional sphere, associated with the subjective assessment of various psychological and/or socio-psychological aspects of professional life" – very similarly to this definition, Ryff & Singer (1996, p. 14) describe the concept of *positive psychological functioning*. However, what is truly *innovative* about *well-being* is not the positive psychological functioning – it is the shift *away* from a treatment-centric approach towards nurturing a captivating human experience, igniting its biochemistry without the need for "pharmacological agents" aimed at altering brain chemistry: "Quality ties to others, feelings of purpose and self- realization engender unique mind/body spirals, but unlike those in the realm of stress, these move toward protection and enhancement of the organism." Hence, Ryff & Singer (1996) also reference Bühler's *basic life tendencies* that strive towards life fulfilment (Bühler, 1959, 1971; Bühler & Massarik, 1968) and Erikson's *stage model* (Erikson, 1959, 1966; Erikson & Erikson, 1997) to gain a deeper and more comprehensive understanding of *well-being*.

The new concept of *professional well-being*, as noted by Pakhol (2018), represents an optimal state of performance within one's *professional role*, and this is relatively recent in the field of well-being science. Nonetheless, as early as 1992, Ryff and Essex defined well-being as "contingent on the congruence between personal needs and preferences and environmental characteristics," (p. 507) drawing upon the work of Carp & Carp (1984) and Lawton (1980). Specifically, the approach of Carp & Carp (1984) is based on Murray's notion (1938, p. 26) that "the 'feel' of being" as "well-being" (p. 40) and as "health of mind and body" (p. 93) depends on the appropriate satisfaction of needs by the environment, and these needs are organized according to the model through Maslow's hierarchy (1954). So, conceptually, *well-being* initially referred to a form of *being well-balanced*.

For Ryff & Keyes (1995), the concept of *psychological well-being* traces back to Bradburn's work in 1969. However, it resulted in the development of a concept more aligned with *positive functioning*. This represents an early operationalization of well-being, primarily by positing the independence of positive and negative effects, which creates the illusion that these components are independent. Conversely, what gained prominence among researchers was the emphasis on life satisfaction as a fundamental indicator of well-being. The concept of life satisfaction was viewed as a cognitive component, resulting in a reduced understanding of *what* it truly signifies and *how* it feels to *be well*. Consequently, after some initial

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misunderstandings, it is ideal for every structural analysis to commence with a well-articulated theoretical framework. However, *professional wellbeing* – what is important for the T2B project – is and cannot be a singular theoretical concept; it encompasses various elements related to the work environment. It goes beyond mere *job satisfaction* or a specific set of *personal qualities* and encompasses not only *organizational and individual factors* but also *personal-professional elements*, such as experiencing *flow at work*, *motivation at work*, and *work satisfaction* with one's everyday professional choice, as demonstrated by Pakhol (2018).

When developing the teacher wellbeing intervention in the T2B project, we also drew upon the *Job Demands Resources Model* (JD-R model) by Bakker & Demerouti (2007), as the model emphasises how factors related to the psychosocial work environment are associated with workers' wb (see Figure 5). According to the JD-R model, aspects of work can be divided into two main categories referred to as *job demand*s and *job resources* (Demeorouti et al., 2001). "Job demands refer to physical, psychological, or organizational aspects of the job that require sustained physical and/or psychological effort and are thus associated with certain physiological and/or psychological costs" (Demerouti et al., 2001, p. 501). Job resources refer to "Those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs (c) stimulate personal growth, learning, and development" (Demerouti et al., 2001, p. 501). When *job demands* are high, employees may experience stress, burnout and ill-health referred to as the health impairment process.

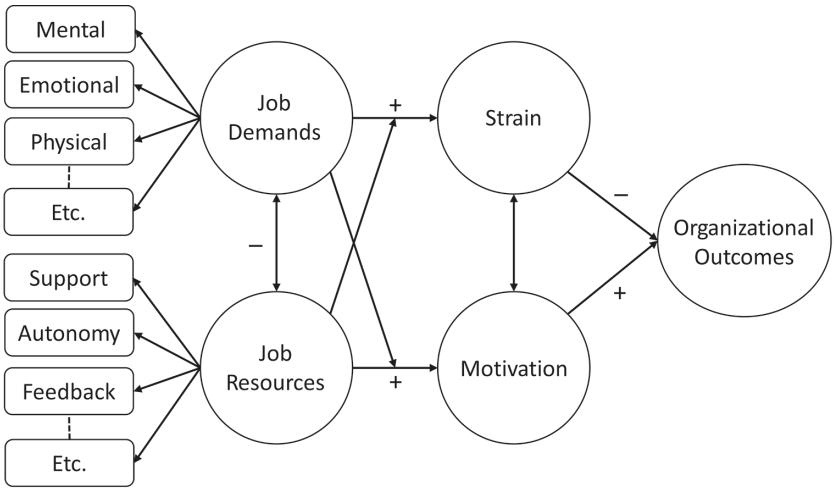

Figure 5: The Job Demands Resources Model (JD-R model) by Bakker & Demerouti, 2007 (self-drawn illustration)

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On the contrary, when the individual has high levels of job resources, these resources may contribute to motivation and engagement, referred to as the motivational process, and *job resources* may also buffer the negative effects of *job demands* (Bakker & Demoerouti, 2007). Thus, the intervention was aimed at reducing teachers job demands, and increasing their job resources, hypothesizing that their well-being would increase. Personal resources are also an important aspect of the JD-R model and were included as part of the JD-R framework by Xanthopoulou et al. (2007). Examples of personal resources are for instance, *curiosity* and *optimism* (and/or humour) are *vital* elements during different phases of one's professional growth and transition, serving as essential components of *well-being* that address the process of *professionalization*, as noted by Flynn & Messias (2020, p. 61): "In fact, meta-analyses show curiosity accounts for 10% of the variance of learning and performance with greater curiosity associated with greater learning, engagement, and performance" (Harackiewicz et al., 2002). So, in the T2B project, research was conducted to gain a deeper understanding of *professional wellbeing*. The Job Demands-Resources model, as proposed by Bakker and Demorouti (2007, 2014), serves as a partial theoretical framework for the T2B project, offering insightful perspectives on workplace dynamics.

In the revised *Job Demands–Resources theory* (JD-R theory), Bakker and Demerouti (2018) eloquently elucidate the bidirectional influence between working conditions and employees, highlighting how each impacts and shapes the other. The Job Demands-Resources (JD-R) theory integrates concepts from both work *motivation* and *job stress* frameworks. At the same time, as posited by this theory, workplace environments or job characteristics can be adeptly divided into two distinct categories: *job demands* and *job resources*. This theory, as expounded by Bakker and Demerouti in 2007 and 2014, still asserts that these categories are characterized by unique attributes and predictive capacities. *Job demands*, which include factors such as workload and conflicts, are – as Bakker and Demerouti (2018) note – typically energy-depleting elements. Within this, workload and task complexity are identified as challenge demands that enhance *performance*, whereas conflicts are seen as hindrance demands that impede performance. Conversely, *job resources* function to assist employees in managing job demands and achieving their objectives. These job demands and resources are not only distinct in their impact on employee well-being but also illustrate the capacity of *job resources* to buffer the adverse effects of *job demands* on negative *strain* (see Figure 6).

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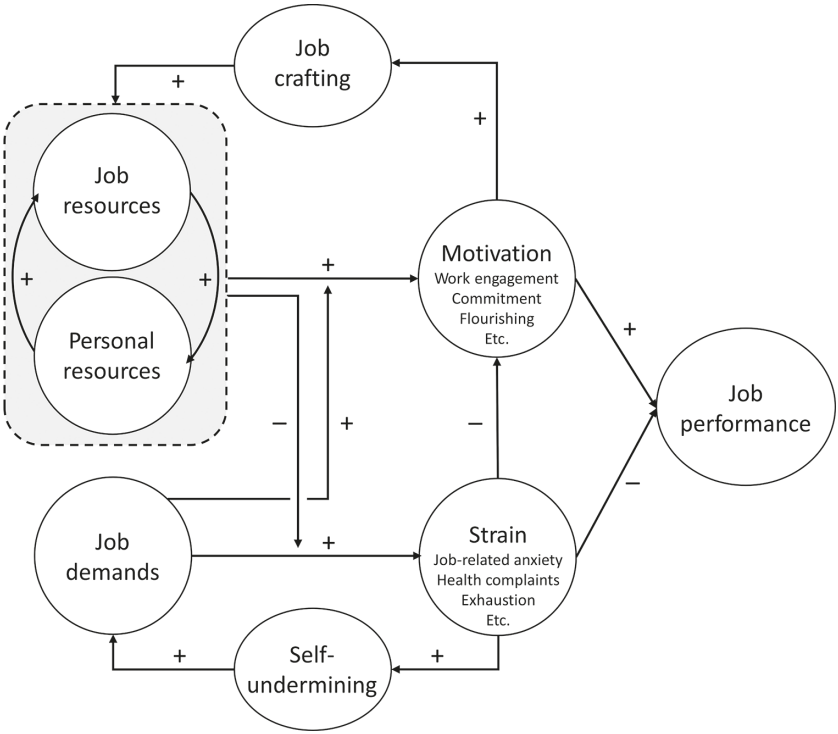

Figure 6: The Job Demands Resources Theory (JD-R theory) by Bakker & Demerouti, 2018 (self-drawn illustration)

According to the *JD-R theory*, *job resources* play a vital role in enhancing *motivation* and work engagement, particularly when faced with *high* job demands. As a result, elements like autonomy, a variety of skills, performance feedback, and a clear sense of task identity gain heightened importance in scenarios characterized by particularly demanding job conditions (Bakker & Demerouti, 2014, 2018). *Personal resources*, such as optimism and self-efficacy, serve a role similar to that of *job resources* and are related to the beliefs that individuals have about their level of control within their (work) environment: "Individuals who are high in optimism and self-efficacy believe that good things will happen to them, and that they are capable of handling unforeseen events. Such beliefs help employees to actively approach their job demands and deal with them in an effective way" (Bakker & Demerouti, 2018, p. 556). The JD-R theory posits that while *motivation positively* influences *job performance*, *job strain negatively* affects it. Motivation aids employees in directing their goals and concentrating their energy and cognitive resources

doi.org/10.35468/6091-01

on current tasks, whereas job strain hinders performance by diminishing the ability to maintain focus: Employees who feel anxious at work and "who experience high levels of job strain (e. g., chronic exhaustion) communicate poorly, make mistakes, and create conflicts, which add up to the already high job demands" (Bakker & Demerouti, 2018, p. 556). This adversely affects *job performance*.

The Job Demands-Resources theory (JD-R theory) establishes the current perspective of framing challenges and issues between the *individual* and the *environment*, often focused (only) on *social* aspects. What the JD-R theory tends to overlook, according to the main author, are specific aspects that are referred to as positive relationships in the eudaimonic well-being model proposed by Ryff (2023), and particularly highlighted in the *Prosocial Model* as a *supportive* classroom and school (work) *climate* (within teams, departments, and institutions), as well as a *conducive* healthy classroom and school *culture* (Jennings & Greenberg, 2009). These models emphasize the *communities, colleagues,*and *friendships* that not only represent personal resources but extend well beyond them. Adler (1927, p. 39) already stated very clearly for this very reason: "So long as people are interested not only in themselves but in others, they will solve the problems of life satisfactorily. But if they develop an inferiority complex, they find themselves living, as it were, in enemy territory - always looking out for their own interests rather than for those of others, and thus not having any sense of community." It is crucial to underscore at this juncture that both *social* and *prosocial* dimensions have their foundations *and* are rooted in *emotional learning* and can be easily discerned (Wiesner, 2020; 2023a), thereby embodying unique viewpoints on "ways of seeing the world" (Adler, 1927, p. 5). Highlighting the emphasis on *motivation* concerning work (purely) as a *performance* aspect (Sprenger, 1999), as well as *job stress*, can result in a negatively biased system, potentially fostering a mindset focused on the absence of illness and stress rather than acknowledging the presence of wb. And to understand *motivation*, we should consider the more diverse and deeper theory of motivation, action, *and* self-regulated learning activities by Rheinberg et al. (1999, 2000) and his *Expanded Motivation Model*.

Lifelong learners are characterized by their *cognitive engagement* and a *passion for learning*, which can be defined as how someone approaches new information and abilities broadly, or the strong *personal* interest with which they pursue specific areas of interest: "Love of learning is described as a character strength with strong intrinsic motivation" (Flynn & Messias, 2020, p. 62). We know from various studies that early career professionals initially focus on establishing their *professional identities*. However, once this identity is found and firmly established, they become essential contributors. The *vitality* that develops through such a process is a key factor in professional well-being. It is characterised by enthusiasm and empowers team members to passionately participate in committees or projects (Irby, 1993). Furthermore, a *sense of autonomy* enhances this vitality (Kasser & Ryan, 1999).

doi.org/10.35468/6091-01

The most effective strategies for enhancing professional well-being and mitigating ill-health and stress focus on addressing their root causes. To achieve this, it is crucial to *cultivate awareness* and gain an understanding of the levels of stress and well-being, as well as the factors associated with these outcomes. In addition to recognizing challenges, it is crucial to pinpoint elements of work that persons find *fulfilling*, satisfying, rewarding, and gratifying (Gardner & O'Driscoll, 2007). The quest is to find *meaning* in both one's work and life activities, and it is crucial that *meaning* is genuinely discovered. In contexts where one's work focuses on *social* aspects, it pertains more to one's life activities and the integration into communal connectedness, emphasising the *prosocial* elements.

Persons with a strong sense of *professional well-being* appreciate beauty and often *experience self-transcendent emotions* such as awe and admiration when encountering perceived beauty and excellence in their surroundings. Aesthetic sensitivity and responsiveness enable them to fully appreciate the world around them, temporarily setting aside their worries and attachments (Peterson & Seligman, 2004, p. 21): "The more people surrounding us who are kind, or curious, or full of hope, the greater our likelihood of acting in these ways." *Appreciation* entails the capacity to discover, acknowledge, and derive pleasure from the presence of goodness. According to Peterson & Seligman (2004, p. 538), we posit that persons who remain receptive to beauty and excellence in both mind and heart tend to experience greater joy in their everyday lives, discover more avenues to imbue *meaning* into their existence, and "connect deeply with other people." Similarly, wb can be viewed as a *holistic* concept in which individuals are considered as *biopsychosocial beings* whose well-being depends on the functioning of their *body*, *mind*, and *spirit* (Bowling, 2003). However, even the most detailed measurement is not a *holistic* approach – from the perspective of subjective wb – but rather an aggregation of several concepts, constructs, or potential measurable factors.

Hence, Gasper (2004) asserts: "Considering the multitude of pertinent facets of well-being, it appears more advantageous to employ 'wellbeing' or 'well-being' as a comprehensive term rather than attempting to identify a singular, key aspect or theme." Well-being encompasses a wide array of diverse elements. "Instead of establishing a tightly defined, narrow concept of well-being," as articulated by Gasper (2004, p. 4), and subsequently attempting to dictate its 'correct' usage, it would be more beneficial to regard *wb* as an overarching concept. In this sense, the T2B project engages with wb and endeavors to incorporate and weigh *various* models and theories in order to approach the scientific construct of well-being or wellbeing, as conceived by Einstein (1952), and facilitate *an examination based on experience* (Wiesner, 2023b). This path also leads to an Online Course on Teachers' Professional Wellbeing (OWC), designed to enhance teachers' practical abilities in sustaining their wb through self-regulated and game-based learning, which has been jointly developed *in close collaboration* with educators.

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5 Conclusion

This paper introduced the *T2B project*, which was carried out from 2021 to 2024 by the following countries (in alphabetical order): Austria, Italy, Latvia, Lithuania, Norway, Portugal, Slovenia, and Spain. The project delved into many unresolved or seemingly clarified aspects related to the theme and construct of wellbeing. Throughout the project, the term *wellbeing* was consistently used as the spelling, even though other variations (including the hyphenated form) were later introduced to emphasize specific theoretical nuances and accents. A more detailed exploration and clarification of these spelling variations, in conjunction with nuanced theoretical considerations, would undoubtedly be valuable and a recommendation for (all) future projects.

The primary objective of the project was the development of an *Online Course on Teachers' Professional Wellbeing* (OWC), aimed at enhancing teachers' practical skills for maintaining their well-being through self-regulated and game-based learning. This endeavor was successfully accomplished through collaborative efforts with educators. Furthermore, this article, serving as an introduction to this anthology (collective volume), initially explores possible perspectives on wellbeing or well-being and in short form wb (without favoring a specific theoretical approach), which can generally be categorized into more *objective* (measurable) or *subjective* approaches. A unique approach is offered by the *LifeComp framework*, as it was created with reference to the Council of the European Union and the revised recommendation on *Key Competences for Lifelong Learning*. In this sense, LifeComp provides a conceptual framework for the *Personal, Social, and Learning to Learn* key competence for education systems, students, and learners as a whole. Wellbeing is an integral and distinctive part of this framework. Moreover four additional models were introduced, which are closely related to the T2B project and each provide certain independent insights into the topic. These include the *Prosocial Model* by Jennings & Greenberg (2009), the *Eudaimonic Well-Being Model* by Ryff (2023), the *Job-Demands Resources Model* by Bakker & Demerouti, 2007 and the *Conceptual Model of Well-Being* by Veronese et al. (2017).

In this paper, we attempted to highlight the differences between *objectifying* and *subjectifying* considerations of wb before delving into the topic of *professional well-being*. Considering all the models and theories of wb presented here, various perspectives lead to different ways of understanding and seeing the world and, consequently, the construct of wb. In this regard, Adler's (1927) perspective can be helpful in *bridging* various viewpoints by establishing a close connection between wb and his three fundamental tasks of life. This connection offers numerous, previously overlooked possibilities for comprehending wb within a broader context and a more holistic approach. When examining the models and theories, it becomes evident that both intriguing approaches and significant blind spots

doi.org/10.35468/6091-01

have emerged across the theoretical landscape. In this process, the theoretical perspective on the landscape even forgot to consider the *hinterland*. The T2B project seeks to contribute to addressing these gaps and has initiated a discussion on ideas, models, and theories while taking the important step of *involving* stakeholders to *integrate* them into the research community.

In conclusion, the project has been directed towards the *school* and *teaching*, with a central focus on *educators*. Only persons can be professionals in terms of wb, and the project's primary goal has been to prioritize this *professionalization*. We hope to have provided a new and distinct contribution to the exploration of wb. Each chapter in the anthology represents insights and perspectives from the project *„Teaching to be"* in some participant country – in alphabetical order: Austria, Latvia, Lithuania, Norway, Portugal, and Spain. The highly readable contributions are the result of years of work, and we wish you much enjoyment in the spirit of a *passion for learning* with the following articles.

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Chapter 2

Spain

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Defining a game-based learning proposal to work with teachers' professional wellbeing: the Teaching to Be video game

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Abstract

This chapter investigates the intersection of professional wellbeing among teaching staff and the potential of educational video games as a tool for improvement as part of the European Project "Teaching to Be". A novel design model is proposed, rooted in interactive digital storytelling principles. The model is applied in the development of *Teaching to Be: A Path to Wellbeing*, a video game crafted specifically to enhance the professional wellbeing of educators. The study critically assesses the model's strengths and weaknesses, offering insights into its applicability in educational game design. By examining the impact of *Teaching to Be: A Path to Wellbeing*, this research contributes to the growing discourse on the role of interactive digital storytelling in fostering positive outcomes for teaching professionals. The nuanced evaluation provides a foundation for refining future iterations of the model and offers practical considerations for those venturing into the realm of educational game design for teacher wellbeing.

1 Introduction

Considering the arrival of COVID-19 and the current global crises, teaching confronts complex and challenging horizons for the educational community (Dabrowski, 2020). Dealing with these external factors generates professional and personal issues for teachers in the daily routine that erode their wellbeing. From a broad perspective, positive teacher wellbeing is addressed as a state of engagement, accomplishment, and satisfaction in the workplace (Acton & Glas-

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gow, 2015; Turner & Theilking, 2019). Nowadays, teachers need to deal with frustration and uncertainty in the planning and development of the teaching. These constraints generate discomfort in educators while could reduce their self-esteem and perceived self-efficacy (Yada et al., 2019; Tschannen-Moran & Hoy, 1998; 2007).

Teacher wellbeing is related to factors linked to emotions generated in academic contexts both inside and outside the classroom. Some emotional factors that condition the teacher's wellbeing are power relationships stablished in the school, the interactions with colleagues, students, and families, among others (Liebowitz & Porter, 2019). However, this fact is not always easy; to achieve desirable states of teacher wellbeing teachers must learn strategies that allow them to manage the challenges of their daily practice as teachers and the processes involved in developing wellbeing. To do so, being a teacher provides plenty of opportunities to grow in the long term which contribute to be motivated and engaged with their job, searching for innovation, and to recognise the strengths and limitations of their teaching practice (García-Lázaro et al., 2022a; Korthagen, 2014). Additionally, social interactions are closely related to self-improvement and professional development initiatives (Glackin, 2019). To find this "happy" face of the profession, it is necessary to learn how to develop as teachers in the educational community and what resources are involved in this process.

The teacher professional development opportunities contribute to reducing teachers' levels of stress and increase or maintain a positive state in the workplace when teachers self-evaluate their practices, recognise their strengths and limitations, and share their concerns with others (Sancar et al., 2021). However, it is still needed to close the gap between theoretical proposals in this line and the practice of teachers in their lives. In this sense technologies, due to their characteristics, can serve as useful tools to improve teachers' wellbeing through simulations, video game-based learning, and reflective processes (Gundel et al., 2019). Facing fictitious educational dilemmas and unpredictable situations and acquiring personal strategies to confront stressful events allow teachers to learn how to react, how to socialise, and how to set limits in a more pleasant and self-managed way.

Due to the previous premises, this chapter presents the conception and design of a virtual environment (video game-based learning) as a part of a European Project (ref.: 626155-EPP-1-2020-2-LT-EPPKA3-PI-POLICY) focused on teacher wellbeing. Our proposal strives to offer a narrative line to strengthen the teacher wellbeing while they are immersed in a fictional school simulation.

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2 Theoretical framework

The role of professional development opportunities in caring for the professional wellbeing of teachers

Teacher professional wellbeing is a subjective construct that depends on the experiences and perceptions of teachers. Feeling comfortable, valued, and inspired in the workplace seems to be a difficult task, especially in contexts where teachers deal with bureaucracy, pressure and plenty of external demands (Saloviita & Pakarinen, 2021). Derived from COVID-19 and current international conflicts, the society looks at educators as professionals who set the future principles, abilities, and knowledge for our century (Pressley, 2021). Being aware of the importance of their work could make teachers feel responsible for the development of future citizens and question their contribution worldwide. Thus, if professional performance is watched, perceived self-efficacy and self-esteem are also affected and the professional wellbeing could be in danger (Bondarchuk, 2018; Harding et al., 2018). Teachers need for resources and strategies to feel capable of affording these difficulties and other professional issues such as bullying, multiculturality (linguistical, ethnical, religious…), special education needs, planning and teaching coordination with others.

A helpful process to reinforce teacher wellbeing, especially in their workplace, is the generation of professional development opportunities. Professional development opportunities are experiences to share concerns and to learn from others how-to-live in uncertainty with constant changes (Darling-Hammond et al. 2017; Huber, 2011). Professional development includes school initiative and external proposals (i.e., from the government, from the educational community) that the teachers access to identify ways to succeed and grow personally and professionally, for instance, training courses or shared reflections (Evans, 2018; Marcelo, 2009). However, these opportunities sometimes present a lack of relationship with the daily practice of teachers; teachers can feel they cannot connect what they live in the schools with the content of the courses and experiences where they are enrolled. This mismatch blocks the reflection and interpretation of problems generating anxiety and stress that makes harder to keep their wellbeing protected (Atikinson & Hornby, 2015).

Regarding how beneficial professional development opportunities for teachers' wellbeing is, an interesting proposal could be being involved in a fictional scenario that allows them to manage their resources and knowledge to reach a specific point to, finally, contribute to their professional wellbeing.

Technologies as opportunities for teachers' professional wellbeing

Game-based learning is a proposal where the teacher navigates and explores social interactions and manages fictitious difficulties which are related with what they

doi.org/10.35468/6091-02

find daily in their workplace (Font & Argüello, 2019; Hrastinski, 2021). Considering this modality of professional development, technologies can be useful for this purpose allowing teachers to self-manage the process whenever they desire. In fact, technology simulations are a recommended resource in the teacher training (Giessen, 2015). New technologies, and specifically video games, are broadly studied in the educational field as a crucial agent in the teaching-learning process (Reyes-de-Cózar, Ramírez-Moreno & Barroso-Tristán, 2022), and they start to be a new agent through serious game modality. The European Commission (2021) has recently planned for the next seven years a strategy plan to support teachers in the digital education which can also enhances their capacity to address inclusive and versatile digital environments. This proposal presents challenges and extra resources for their teaching and planning in collaboration with other educational agents such as mastering specific tools and devices, co-teaching in digital environments and developing an onsite monitoring process of their students' achievement (Caena & Redecker, 2019; García-Lázaro et al., 2022b).

However, technologies can also present significant levels of stress and high-demanding skills for teachers which jeopardises their wellbeing in terms of teaching-control (Fernández-Batanero, 2021). Getting used to using technologies involves being exposed to rapid changes and constant adaptation that present some struggles in the daily life of a school (Englund et al., 2016). Through the process of living in this uncertainty and continue reaching the educational standards, serious games and video-game based learning can be opportunities for teachers to manage and improve their capacity to deal with their teaching while they also improve their digital competence (Foster & Shah, 2020).

Some studies (Bado, 2019; Haart et al., 2020) have addressed the use of technologies in the teachers' performance when teaching any content; however, how teachers learn to develop and protect their wellbeing through game-based learning still presents a lack of scientific support. Trying to explore and address this issue, the Erasmus+ project "Teaching to Be" deepens the analysis of game-based learning to help teachers to improve their wellbeing by creating a videogame theoretically framed by teachers' wellbeing construct.

3 The proposal

Research protocol

This chapter aims to present the conception and design of an educational videogame framed by game-based learning principles to improve the professional wellbeing of the teachers in service who participate in the international project "Teaching to Be". For this purpose, we developed a review of the existing literature related to models which work on videogame narratives and fictional scenarios,

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focusing on three aspects. First, we needed to identify the most significant models already implemented to create game-based environments, paying special attention to the ludic components, such as immersion, engagement, and narrative, among others. Second, we identified the elements that concern the educational perspective, pointing out the models whose focus was on the pedagogical component of the game. Finally, we analysed the most relevant design principles to create an effective educational videogame, incorporating guidelines to improve the user experience and lead to effective learning. Thus, the product generated as part of the European-funded project can serve as an educational resource for teachers in service out of the project. We finally got different models according to the already mentioned aspects and they are presented below.

Recognised models for creating videogames

A review of the literature has led to the selection of four models that substantiate the development of the proposed framework for our game-based learning tool.

Hunicke et al. (2004) present the MDA framework, an approach aimed at comprehending the gap between game design and development. This model is structured around three components: mechanics, dynamics, and aesthetics. Mechanics delineate the game's elements, establishing the rules, at the level of data representation and algorithms. Dynamics are the run-time behaviour of these mechanics influencing player inputs and outputs during gameplay. Aesthetics describe the emotional responses triggered in the player during their interaction with the game, essentially the enjoyment experience. The GameFlow model, proposed by Sweetser and Wyeth (2005), comprises eight elements: concentration, challenge, player skills, control, clear objectives, feedback, immersion, and social interaction. Each element is accompanied by a set of criteria to foster game enjoyment. Games must require concentration requiring players to focus on the game (concentration). Also, the games must offer sufficient challenge and adjusted to the player's skill level (challenge) and must promote the development of the player's skills (player skills). In addition, players should feel a sense of control over their in-game actions (control) and should receive timely and relevant feedback (feedback). In addition, games must present clear objectives to players at appropriate times (clear objectives) and create opportunities for social interaction (social interaction). Finally, players should experience deep and effortless involvement during the play (immersion).

O'Brien & Toms (2018) present the User Engagement Scale (UES), which is structured around six factors, deployed in several items. On the one hand, the usability perceived by the player and the felt involvement. Also, as in previous models, the aesthetics of the game to measure the attractiveness of the game and the visual pleasure. Focus attention, novelty and endurability are used to assess whether the experience is fun, immersive and maintains curiosity and interest in

doi.org/10.35468/6091-02

the game. With these six factors, this scale aims to measure the level of engagement that the user has experienced during the game.

The Narrative Centred Informant Design framework, developed by Naul & Liu (2019), proposes the four features that a game must contain to create effective game narratives. On the one hand, distributed narrative, emphasizing the ability to divide narratives into smaller units and distributed across various game scenarios. Intrinsic integration involves embbeding endogenous, or intrinsically integrated fantasies within the game, establishing connections between mechanics and pedagogical content. On the other hand, the framework highlights the importance of empathetic characters, allowing players to enjoy building relationships with the characters. Finally, adaptive storytelling, like responsive narratives that empower players to influence the progression of the game's story, enhancing their engagement.

Model for adding educational layer

Through the review of models focused on the educational component, two of them were taken as a reference.

RETAIN model (Gunter et al., 2007) is a rubric for educational games, developed to help assess the extent to which academic content is endogenously immersed and integrated into the fantasy and story context of the game, and promotes knowledge transfer. It consists of 6 items. Relevance refers to the degree to which the game activity reminds the player of the importance of specific activities and functions of their real life. Embedding pertains to the degree of integration between the academic content andthe fantasy/story. Transfer refers to the game's ability to transfer educational content. Adaptation, meanwhile, refers to a process in which learners interpret events based on what they already know. Immersion can be measured ranging from basic interaction and reaction to complete engagement, involving intellectual investment within the game's context, particularly in a learning situation. Finally, naturalization, is closely tied to the idea of automaticity or spontaneous knowledge. A learner incorporates learned information into their habits and routines, consistently applying it without requiring substantial mental resources. Naturalized content results in a reduced cognitive load compared to newly acquired knowledge, enabling students to allocate their cognitive effort to higher order thinking skills.

The GEB (Gaming educational balance model), proposed by Martínez et al. (2022), is structured in three levels: game, education, and general. The game dimension is based on the MDA model, explained above, extended with the user experience component. Education is based on two aspects: the educational strategies and the motivational design of the game. Finally, in the general layer, it is based on "learning & fun" and "can/must learn", point out the importance of ensuring learning.

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Design principles and guidelines

Finally, the principles and guidelines used to build the framework are also based on the literature review: engage the player with narrative, provide immediate feedback, integrate learning objectives with game mechanics, create authentic and realistic scenarios, create situations to learn how to manage conflict, incentive game activities, not punish the failure and include in-game rewards.

Based on the six models described above, the elements that best fit the purpose of the video game to improve the wellbeing of teachers were extracted, in addition to incorporating the guidelines and design principles described above. The result is the framework presented in Figure 1.

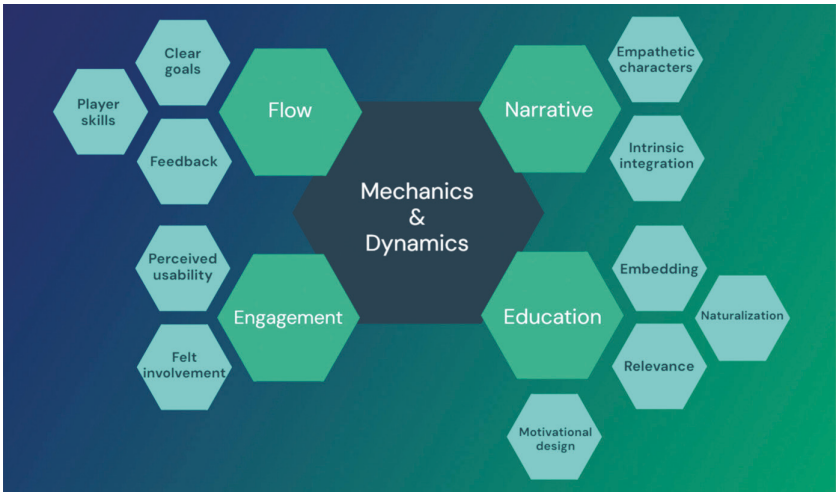

Figure 1: Proposed game-based learning framework to improve teachers' professional wellbeing.

Results: Developing the video game Teaching to Be: A Path to Wellbeing

The result of the research and design of our framework for the development of game-based teachers' training resulted in the creation of a video game called *Teaching to Be: A Path to Wellbeing*. *Teaching to Be* can be defined as a first-person point-and-click adventure game for web browsers. The game is structured in 12 episodes of approximately 15-20 minutes in length. Each episode follows learning objectives set by the Online Wellbeing Course content design team. In this way, we ensure that with each episode, the player not only progresses through the story, but also learns something new about their professional wellbeing.

In the following, we will describe the design strategies followed to comply with the principles and guidelines established by the existing framework:

doi.org/10.35468/6091-02

1. *Engage the player with narrative*. One of the first decisions we made was to contextualise the teachers' learning with a character-based narrative. Several options for the storyline were considered, from more fantastical proposals to more everyday situations. In the end, we decided to ground the plot in the adventure of an anonymous teacher starting a new life in a different city and school. Inspired by the mythical structure of the hero's journey, we established a route of twelve episodes in which it becomes clear how the protagonist starts a round trip, taking with them a valuable learning experience. We will develop this part in more detail in section 4. On the other hand, we had to establish from a very early stage of development what the point of view of the story would be. This is one of the most important decisions when designing a video game, as the camera perspective conditions to a large extent the degree of immersion and identification of the player in the game world and with the protagonist. In the end, after submitting the game to several tests, we decided to devise a first-person view, where everything we see on screen simulates the perspective of the player-protagonist. In this way, in addition to achieving greater immersion, we allow both male and female teachers to identify with an anonymous and invisible hero. Thus, we make the player the protagonist.
2. *Provide immediate feedback*. Early on in development, we established that every player action should be accompanied by specific feedback. There are four types of feedback in interactive environments: positive, negative, neutral, and contextual. In the case of *Teaching to Be: A Path to Wellbeing,* we chose to give preference to the positive ones. Whenever the feedback is negative (in the case of an incorrect answer to a test question to check the player's learning), we always choose to accompany it with reinforcement messages and an adequate explanation of the cause of the mistake, as can be seen in Figure 2.

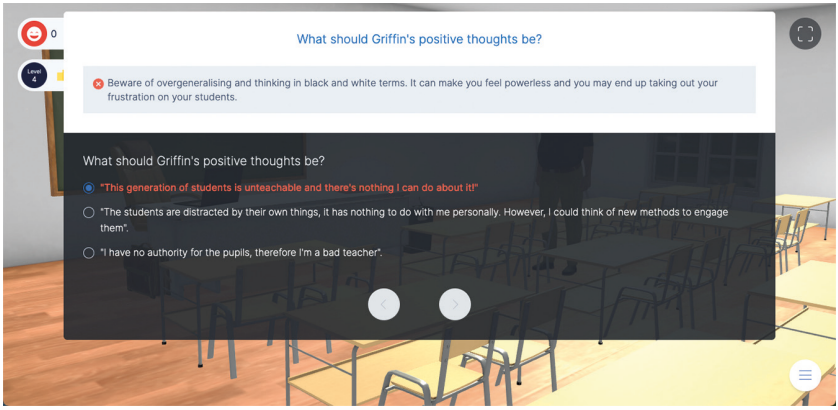

Figure 2: Example of negative feedback accompanied by positive reinforcement.

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3. *Integrate learning objectives with game mechanics*. Game mechanics are the basic principle of any game, digital or not. Mechanics are composed of the performative actions and the rules that condition and determine the initial state and changes in the game world. For *Teaching to Be: A Path to Wellbeing*, we established, on the one hand, the actions of picking up, examining, and interacting with game objects around the environment, and, on the other, of talking to other characters and choosing dialogue options. With these two-core mechanics, the player can progress through the learning and the story. From these mechanics, the learning and narrative dynamics that shape the game experience are derived. For example, by choosing between various dialogue options, the player can both respond to the needs of the story and test their knowledge of certain content, with the same action serving different purposes, depending on the moment.
4. *Create authentic and realistic scenarios*. As outlined in point 1, the proposed narrative places the player in the role of a teacher who has just moved to Welbury, a quiet and cosy seaside town, presumably to start teaching at a new school. The reason, however, goes beyond that. Marie, the school coordinator, proposes that you lead, with the help of head teacher Ulysses, a group of unmotivated teachers on an adventure to achieve a greater sense of professional wellbeing. The plot is full of situations familiar to any experienced teacher: overwork, distracted students, lack of motivation, absenteeism, dealing with students' parents... Everything is designed so that, through everyday situations played by the game's cast of characters, the player learns strategies to improve wellbeing and puts them into practice.
5. *Create situations to learn how to manage conflict*. In line with the previous section, a learning and game loop was designed that could be replicated in each of the episodes regardless of its content. This loop (Figure 3), composed of six stages, ensures the correct assimilation of contents while they are put into practice with real situations inserted into the plot of the game. Thus, the narrative of *Teaching to Be: A Path to Wellbeing* is based on the concept of conflict typical of dramatic storytelling (Lavandier, 2005): the idea that the best way to generate engagement is by opposing the character's desires to a series of attainable obstacles, generating a conflict that must be resolved. For example, in one episode, the player must help a teacher learn new classroom management techniques, first by learning on their own, and then by resolving the teacher's doubts in the middle of a lesson. Other conflicts include finding out why a student misses class so often, having to work it out with his father, or discovering the source of a classmate's insecurity in front of his students.

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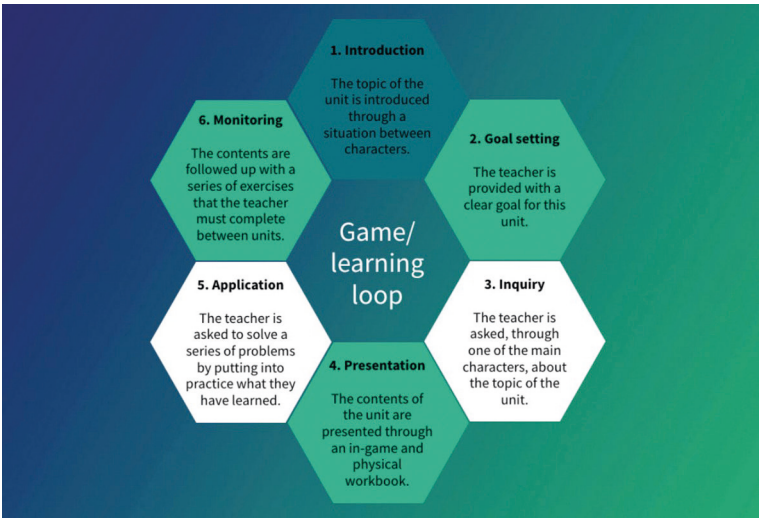

Figure 3: Game and learning loop proposal.

6. *Incentive game activities*. Game-based learning often focuses too much on learning and neglects the fundamental playfulness of the experience. The mechanics therefore need to do more than just answer quiz questions; they have to facilitate a playful immersion through small games, challenges, and incentives that test the player's skills. In the case of *Teaching to Be: A Path to Wellbeing*, its point-and-click adventure nature, in the vein of genre classics such as *The Secret of Monkey Island*, requires the inclusion of small challenges that often do not have a learning base behind them, but exist purely for the sake of challenging the player. As an example, in the final episode, the player accidentally gets locked in the school storeroom while looking for drinks for the farewell party. There is no didactic motive behind this decision; just a challenge of logic and observation characteristic of the genre in which *Teaching to Be: A Path to Wellbeing* is embedded (Figure 4). Like this example, the game occasionally offers small puzzles involving other characters, such as finding a teacher's lost book or discovering Marie's whereabouts.

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Figure 4: Scene from episode 12 of *Teaching to Be: A Path to Wellbeing*.

7. *Not punish the failure*. In line with section 2, *Teaching to Be: A Path to Wellbeing* should ultimately be a rewarding experience that promotes personal and professional wellbeing. We knew from the outset that we could not demand unnecessary effort and skill sets from players that are typical of conventional video games. *Teaching to Be: A Path to Wellbeing* could not risk the wellbeing of its players to promote this very thing. Therefore, among other design decisions, we always opted for positive feedback and for not considering "good" and "bad" choices. There are no bad choices in *Teaching to Be: A Path to Wellbeing*, but different formulas for achieving the same goals, and discovering oneself in the process.
8. *Include in-game rewards*. Finally, in line with sections 2 and 7, an internal scoring system was designed based on a few previously collected dimensions of wellbeing that have been developed in other chapters: 1) job engagement, 2) teacher job satisfaction, 3) teacher self-efficacy, 4) job crafting, and 5) organisational support. These five dimensions were to be addressed and incentivised through the game, and so we decided to establish four categories in which the player could score points: 1) productivity, 2) teamwork, 3) relationship, and 4) inner space. Each category contains, at the same time, two skills that the player can increase by solving mini-games, making decisions and, especially, solving questionnaires (Figure 5). These, known as "gaming skills", are the following: management and engagement (category: productivity), leadership and problem solving (category: teamwork), empathy and network (category: relationship), and self-esteem and self-accomplishment (category: inner space) . At the end of each episode, the player can preview the status of their "wellbeing profile", looking at the skills they excel in or prioritise the most, and compare it with

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other players' profiles. The aim, as mentioned in the previous section, is not to compare players in terms of better/worse, but to offer each player a tailored experience, reflecting those dimensions of wellbeing to which they attach most importance or in which they naturally excel.

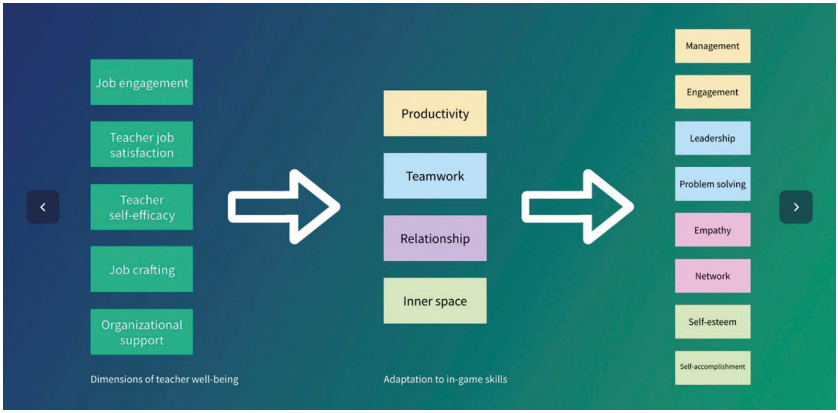

Figure 5: Translation of the dimensions of teacher wellbeing into game skills.

4 Discussion: Strengths and limitations

The video game *Teaching to Be: A Path to Wellbeing* shows that innovative training approaches to work with teachers' wellbeing present future challenges and improvements.

In terms or opportunities and strengths, the videogame is still being implemented, thus, the relationship between its findings, teachers' management of the videogame and the implementation's results are being explored. Therefore, our proposal only presents the conception and design of the videogame. As Guillén-Gámez et al. (2021) pointed out, the digital competence of teachers intervenes in the capacity of building personal and successful approaches to their teaching. Conditioning their job, technologies can not only be significant tools for the teaching-learning process, but also could help teachers to improve their emotional response to stressful situations that take place in their school and classes. When we created the videogame, we expected to help teachers to promote positive emotions in the workplace since it seems to be a significant predictor of wellbeing (Dreer, 2021). Some of the emotions closely related to a positive professional wellbeing are commitment, feeling as contributors to a common purpose, feeling part of the teamwork, and feeling valued. In addition, some research consistently shows a positive relationship between teachers' wellbeing and students' wellbeing (Harding et al., 2018; Braun et al., 2020), so employing tools to improve it may be a desirable solution to

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address problems such as lack of engagement or burnout in the classrooms (Reyes-de-Cózar et al., 2023)

Working from the videogame's perspective, when offering missions and challenges to the teachers, different competencies are involved apart from digital competence, such as adaptability, autonomy, initiative, or self-regulation which help the educators to analyse their social responsibility and the kind of involvement they show in real situations like those offered by the videogame. Since the stress and external demands cannot be removed from the workplace (Bermejo-Toro et al., 2016), teachers must deal with uncomfortable events and learn how to live with a loss of control in specific situations. By simulating dialogues and missions to be covered by the players, teachers need to ask themselves about the possibilities to react and answer the external demands, which is closely related to those demands they also address in their daily routine.

In terms of limitations, the players involved in this proposal were in many cases teachers who are not used to playing video games, and they needed to show a minimum of digital competence to be able to enjoy the experience. Among the requirements of the project where this videogame is framed, there is the need for access to a desktop computer or laptop and a stable Internet connection, as the game is played entirely through a browser, as well as a minimum knowledge of certain video game conventions, such as solving puzzles or scoring points. The logic behind a point-and-click adventure game demands a minimum interactive language literacy; it requires learning the meaning of certain actions in the game world and understanding the feedback received by the programme.

Moreover, the proposal needs dedicated technical support and advice after the implementation of the game. In this sense, it is advisable to offer a first training session, if possible, in person, to make sure that all players understand the programme and know how to interact with it. It is therefore important to keep the complexity of the game mechanics as low as possible, as well as to provide the game with narrative elements that accompany, guide, and motivate the user to understand the internal structure or main purpose, especially in the first sessions.

Understanding the previous strengths, weakness, and requirements to be immersed in the videogame, the proposal still offers a tool which is original and poorly covered by the current research about teachers' professional wellbeing linked to play serious games.

5 Conclusions

Teacher wellbeing is a complex but affordable construct from a technological perspective. As it is urgent to take care of teachers' professional wellbeing in their daily routine, *Teaching to Be: A Path to Wellbeing* presents the origin and design of a videogame based on teacher's wellbeing principles that help to face possible

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challenging situations that educators will find in real schools. We use the already presented theoretical perspectives to design a game-based narrative which catches the teachers' curiosity and helps them to recognise and deal with stress and misunderstandings in social relationships. The kind of challenges and missions proposed through the videogame aims to generate some self-awareness about one's wellbeing, and some analytical skills to manage how to react to emotional inputs. This was possible thanks to the careful design of the game-based environment following accurate models. It was also possible due to the realistic situations proposed during the timeline of the videogame. This closeness to the reality's issues that teachers experience would make teachers participants see the usefulness of participating in the project by improving their professional wellbeing. Thus, the game-based proposal helps teachers to acquire strategies to care about their wellbeing.

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Chapter 3

Latvia

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Approaching teachers' professional wellbeing from different angles: Teachers' self-efficacy, burnout and resilience through participation in the Online Wellbeing course

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Abstract

During the last decade, consistent and systemic work has been done to develop interventions and shape policies to promote social-emotional learning and support wellbeing in Latvian schools. Several interventions aimed to develop students' social-emotional skills both directly and indirectly have already been implemented in Latvia, providing evidence that not only students but also teachers gain from the implementation of social-emotional learning and promoting mental health in schools. Nevertheless, there has been insufficient focus specifically on teachers themselves when considering mental health and wellbeing at schools. This empirical research aims to analyze different factors of teachers' professional wellbeing in Latvia, namely teachers' self-efficacy, resilience and burnout, at two time points – before (T1) and after (T2) implementing the Online Wellbeing course (OWC) for teachers. The research sample consisted of 281 teachers from 15 schools from different regions of Latvia. Group A (N=83) took part in the course's development and later implemented it, Group B (N=102) implemented the course, and Group C (N=96) participated in the control condition. The results showed that the teachers' wellbeing was initially characterized by moderate levels of self-efficacy and resilience and a relatively low level of burnout rates. However, there was a wide variation in data, indicating significant individual differences among teachers. Over time, teachers' self-efficacy in terms of their ability to motivate students, adapt instructions and maintain discipline increased significantly in both experimental groups compared to the control group. Teachers' resilience increased significantly in the experimental groups and decreased in the control group. During the project,

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no changes were found in terms of teachers' burnout, which slightly increased in both the experimental and control groups. The results have implications for educational practice and policy.

1 Introduction

In psychology, the term "subjective wellbeing" refers to a person's evaluations of their quality of life, including self-acceptance, environmental mastery, autonomy, positive relationships with others, personal growth and a sense of the meaning of life (Ryff & Keyes, 1995). Wellbeing is a multi-dimensional construct reflecting a person's professional, personal, and interpersonal success (Ruggeri et al., 2020). When considering work life, professional wellbeing as a broad concept and its organizational, personal and professional components come to the fore. Professional wellbeing reflects the employee's satisfaction with work and the positive feelings experienced (Bakker & Oerlemans, 2011; Diener et al., 1991). It is affected both by external factors such as the physical work environment and organizational management style (Guest, 2002; Lawson et al., 2009) and by individual factors such as the employee's personality traits, behaviour, and ability to cope with stress (Biggio & Cortese, 2013; Graham & Shier, 2010; Hodkinson et al., 2004; Loftus & Higgs, 2010). Professional wellbeing improves positive attitudes and job motivation, thus providing better work results, strengthening the organizational community, and improving cooperation with colleagues (Donald et al., 2005; Ford et al., 2011; Harter et al., 2003; Isham et al., 2019; Robertson & Cooper, 2011).

Teachers wellbeing

In recent years, research on teachers' wellbeing has increased (Hascher & Waber, 2021), reflecting the importance of the topic, because the professional wellbeing of teachers is closely related to their work and the overall quality of education. The OECD conceptualizes teachers' professional wellbeing in terms of their responses to the cognitive, emotional, physical and mental health, and social conditions associated with their profession (Davydovskaia et al., 2021; Viac & Fraser, 2020). Teachers' professional knowledge and skills are indisputably among the most important factors contributing to student achievement (Baumert et al., 2010; Hill et al., 2005; Tatto et al., 2012). Nevertheless, studies have shown that teachers' wellbeing is also related to the achievements of their students (Briner & Dewberry, 2007; Goddard et al., 2000). Such factors as the teacher's motivational and social-emotional characteristics significantly affect students' learning motivation and achievement (Frenzel et al., 2009; Kunter et al., 2013). Less satisfied teachers are more susceptible to stress and burnout, which, in the short term, affects teachers' effectiveness in the classroom (Skaalvik & Skaalvik, 2018). Students taught by

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teachers who report higher levels of emotional exhaustion tend to exhibit lower average levels of academic achievement (Arens & Morin, 2016) and report lower levels of behavioural adjustment (Chang, 2009). Teachers' ability to establish and sustain positive teacher-student relationships has been recognized as vital during investigations of students' contentment with school (DeSantis-King et al., 2006; Zullig et al., 2011). Consequently, teachers' wellbeing is a significant variable in the context of the school as a successful learning organization.

Research has shown that such negative factors as work-life imbalance (Moeller et al., 2018), stress and burnout negatively affect teachers' ability to teach and are related to work overload, increased requirements, insufficient autonomy and negative school climate (Brackett et al., 2010; Carver-Thomas & Darling-Hammond, 2017). Increases in teacher stress are directly related to decreases in perceived school connectedness and teaching effectiveness (Von der Embse & Mankin, 2020). Moreover, there is evidence of a relationship between teachers' wellbeing, burnout and leaving the profession (Roffey, 2012). Previous research indicates that many young professionals leave the profession within the first five years. OECD studies also show that teachers experiencing high levels of stress at work are more likely to report their intention to leave teaching and move to other careers within the first five years (Davydovskaia et al., 2021). The results of the TALIS 2018 study are in line with the results of research in other countries and show that 13% of teachers in Latvian schools have less than five years of experience, while the number of teachers with six to ten years of experience is twice as low (Ainley & Carstens, 2018).

It is known that a positive school climate reduces the stress experienced by teachers at work, promotes their perceived effectiveness and can reduce the risk of burnout (Gribusts, 2021; Martinsone et al., 2023). Research suggests fostering a supportive school climate and teachers' stress management skills to boost teachers' wellbeing (Gray et al., 2017). Despite the different objective factors associated with teachers' wellbeing (e. g., workload, time pressure, salaries, prestige of the profession in society and others), various aspects of wellbeing depend on schools and teachers themselves.

This study addresses three aspects of teachers' professional wellbeing, namely, self-efficacy, resilience and burnout, since these are among the most important factors determining teachers' work performance, job satisfaction and overall wellbeing (Li, 2023).

Teachers' self-efficacy

Self-efficacy is the teacher's perceived ability to work towards reaching educational goals (Skaalvik & Skaalvik, 2007; Zee & Koomen, 2016) in terms of teaching, adjusting instructions, motivating students and maintaining classroom discipline. Teachers' self-efficacy can be facilitated by their engagement in social-emotional

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learning (Bradley et al., 2018), and it has been found to relate to teachers' job satisfaction, higher motivation and professional commitment, as well as better teaching quality (e. g., Caprara et al., 2006; Skaalvik & Skaalvik, 2014). Self-efficacy can be considered as an asset helping to promote resilience when facing adversities.

Teachers' resilience

Resilience involves the activation of multiple individual and contextual resources to manage challenging situations successfully (Ungar, 2012). Research has shown that there is a strong positive correlation between teachers' wellbeing and resilience (Hascher et al., 2021), increasing teachers' ability to respond to challenges (Mansfield et al., 2016). Nevertheless, the multidimensionality of resilience in research has been covered by measuring teachers' self-efficacy, workload and perceived support, as well as school climate and student behaviour (Ainsworth & Oldfield, 2019). Consequently, resilience, wellbeing and self-efficacy are variables interrelated in a complex way (Hascher et al., 2021). The authors propose the AWaRE (Aligning Wellbeing and Resilience in Education) model, reflecting the crucial role of resilience in developing and maintaining teachers' wellbeing through an adaptive process of re-establishing and sustaining wellbeing when facing challenges. Stress and burnout (Agyapong et al., 2022) are among the issues teachers face when the process of restoring and maintaining their wellbeing is jeopardized.

Teachers' burnout

The concept of burnout describes a condition when a person experiences exhaustion, depersonalization and feelings of personal inadequacy due to prolonged stress (e. g., Kim & Burić, 2020; Yang & Hayes, 2020). The teaching profession is associated with a high level of responsibility and intense emotional involvement, thus sustaining the risk of emotional burnout and physical and mental health issues (e. g., Collie, 2021; De Clercq et al., 2021). Teachers' burnout is characterized by such deficits as emotional exhaustion (i.e., fatigue and low energy), depressed moods (i.e., sadness, hopelessness) and psychosomatic responses like pain, tension and problems sleeping (Skaalvik & Skaalvik, 2018).

In a sample of 506 teachers working in Latvia during the COVID-19 pandemic, higher levels of emotional burnout among teachers were associated with a lower ability to psychologically distance themselves from the work to keep a balance between professional and personal aspects of their lives (Ronesala & Martinsone, 2023). These results were in line with the conclusions of other studies (e. g., Herman et al., 2018), underlining the necessity to promote teachers' mental health and professional wellbeing.

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Promoting the professional wellbeing of teachers

There are several research-validated tools targeted to improve teachers' wellbeing, such as 1) maintaining a learning journal to note and reflect on thinking errors or to monitor one's own exercise and sleep habits to develop self-regulation and awareness in a balanced daily routine (Taylor, 2018); 2) using positive psychology strategies like focusing on the positive aspects of one's work, applying individual character strengths in the workplace, or ensuring social support (Turner et al., 2021); 3) completing additional exercises like keeping an emotion diary, writing a letter of gratitude, or organizing a happiness day (Rahm & Heise, 2019); and 4) using teaching and formative assessment strategies to promote social-emotional learning (Ferreira et al., 2020). Such initiatives as social-emotional learning, maintaining a strong collaboration, increasing teacher's confidence to work effectively, giving teachers the autonomy and capacity to sustain their own professional wellbeing, and investing in building and sustaining a positive school climate (Martinsone & Žydžiūnaite, 2023; Martinsone et al., 2023) are recognized as key factors of wellbeing at schools.

Research shows that teachers must develop their ability to self-observe and reflect (Martinsone & Damberga, 2017) and strengthen their mental health (Weston et al., 2018) to become active facilitators of wellbeing at school. Nevertheless, there are still insufficient evidence-based interventions that develop teachers' skills and practices to maintain a high level of wellbeing. As a response to this gap, the project "Teaching to Be" aims to increase teachers' professional wellbeing by developing and implementing the Online Wellbeing course (OWC) for teachers. In this research, we address the status of teachers' professional wellbeing at T1 and the effectiveness of the "Teaching to Be" project in Latvia by comparing the changes between T1 and T2 longitudinally. Thus, we posed the following research question and hypothesis:

Q What was the status of Latvian teachers' professional wellbeing in terms of perceived self-efficacy, resilience and burnout in October 2022?

H There will be an increase in teachers' self-efficacy and resilience and a decrease in burnout among teachers who implemented the OWC. No such change will exist in the control group.

Method

Description of the intervention: The "Teaching to Be" project in Latvia

The Erasmus+ project "Teaching to Be: Supporting Teachers' Professional Growth and Wellbeing in the Field of Social and Emotional Learning" aims to promote teachers' professional wellbeing by developing and implementing innovative professional development practices. To reach this goal, the project developed and tested two innovative professional wellbeing materials: the OWC and a teacher's handbook.

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The OWC was developed to assist teachers in developing the competence to build and sustain their wellbeing through self-regulated and game-based learning. To complete the online course, teachers should apply such social-emotional skills as self-awareness and management, social awareness and relationship skills, goal-setting, problem-solving, and responsible decision-making. Thus, the OWC is intended to use both the content and process of playing to facilitate teachers' social-emotional growth and consequently increase perceived wellbeing. The handbook is incorporated into the OWC but is also provided as a separate tool to use independently to obtain new professional skills, collaborate with colleagues and address important issues in the school.

The course, consisting of 12 modules, was recommended to be implemented within 12 weeks, with one whole week devoted to the implementation of one specific topic from the course (Talič et al., 2023). The OWC's content is based on the sailboat metaphor. By playing the game interactively, teachers navigate their sailboat and follow the story, reflecting on their personal needs and values, strengths and weaknesses, goals and different aspects of their personal growth. Teachers are free to choose when and for how long to play the game and whether to do it individually or to collaborate with colleagues. Among the themes of the course are building skills relating to self-awareness, self-efficacy, available support from others, self-regulation, resilience, coping with stress, empathy and relationships, leadership, responsible decision-making, and adaptiveness.

The "Teaching to Be" project was implemented in three stages:

- The preparation phase took place in the 2021/22 academic year. The content of the project's materials was developed and created in collaboration with five schools (Group A) through focus group interviews. Feedback from teachers was collected to improve the OWC's planned content. Simultaneously, a survey was developed and validated to prepare for measuring the intervention's effectiveness.
- The intervention took place in the 2022/23 academic year, when two experimental groups (Group A, which co-developed the course in the previous year, and Group B, another five schools) participated in professional training and implemented the OWC and the teacher's handbook. In this phase, an additional five schools were involved as a control group (Group C), and teachers from these schools completed the research questionnaire before and after the experimentation.
- In the final phase of the project, teachers from Group C received teacher training and were provided with the project's materials. Assessments were conducted concerning the project's effectiveness and the development of evidence-based recommendations for educational policymakers.

doi.org/10.35468/6091-03

Participants and procedure

The project involved teachers from 15 municipality-founded general education schools from different regions of Latvia, including Riga. Participating schools were selected based on their availability and interest in taking part. Initially, 289 teachers started the project and participated in the pre-test survey (T1), and 281 teachers participated at both time points (T1 in October 2022 and T2 in April/May 2023), implying a drop-out rate of 2.8%.

Schools were divided into three groups – two experimental (A and B) and one control (group C). Group A (five schools) comprised 83 teachers participating in the survey at both time points. Group B (five schools) comprised 102 teachers implementing the ready-to-use OWC and completing the survey at T1 and T2. Group C (five schools) comprised 96 teachers participating in the surveys before and after experimentation.

Of the teachers participating in the survey at T1, 94% were women and 5% were men (1% declined to answer). The majority of the respondents (37%) were in the 45-54 age group. The mean age and gender distribution accurately illustrate the demographics of the Latvian teacher population (see, e. g., Martinsone & Damberga, 2017; Martinsone & Žydžiūnaite, 2023). Teachers' work experience was mostly 25 years or more (see Table 1).

Table 1: Respondents' age and work experience (whole sample at T1, N=289)

Age in years	Relative frequency (%)	Absolute frequency (N)
>21	0.3	1
21-29	7.3	21
30-44	25.6	74
45-54	36.7	106
55-64	27.7	80
65 +	2.4	7
Work experience in years		
>1	0.7	2
1-5	8.3	24
6-10	11.8	34
11-15	9.7	28
16-20	9.3	27
21-25	19.7	57
25 +	40.5	117

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Data on teachers' wellbeing was collected at the beginning (October 2022, T1) and end (April/May 2023, T2) of the 2022/23 academic year. Every participant received a unique code to be mapped to T1 and T2 data. A, B or C was added to the code according to the group to which the respondent belonged. The links to online surveys were sent personally to each participating teacher's e-mail, which respondents provided when giving their informed consent before entering the project.

Measures

The survey on teachers' professional wellbeing was developed for this specific research, based on measures with already proven validity. The survey assessed such variables as teachers' professional self-efficacy, work engagement, turnover intentions, workload, support and empowerment from school administration, relationship with colleagues, perceived stress and burnout, work autonomy, resilience, job satisfaction, and self-reported health. This paper analyzes the overall sample's results at T1 to answer the research question and evaluates longitudinal changes in teachers' self-efficacy, resilience and burnout in experimental and waiting groups to prove hypothesis.

Self-efficacy was measured using the Teacher Professional Self-Efficacy Scale (Skaalvik & Skaalvik, 2007), addressing such dimensions as instruction/teaching, adapting instruction/teaching to individual needs, motivating students, maintaining discipline, and cooperating with colleagues and parents. Each factor included four statements evaluated on a 7-point Likert scale from 1 (not at all) to 7 (absolutely certain). The 9-item Bergen Burnout Inventory (Feldt et al., 2014) was used to assess teachers' burnout. Besides the summative burnout score, several dimensions of burnout were assessed – namely, emotional exhaustion, cynicism and inadequacy – using a 6-point Likert scale ranging from 1 (totally disagree) to 6 (totally agree). Teachers' resilience was measured by the Brief Resilience Scale (Smith et al., 2008), which consists of six items measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The survey was translated by a bilingual translator applying a staged process of translation (including forward translation and review and back-translation and review) to reach a semantic and conceptual equivalence. The reliability of the translated measures was checked and compared with Cronbach's alphas for the original measures (see Table 2). All scales demonstrated satisfactory to excellent internal consistency.

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Table 2: Internal consistency of the scales and composite scores in the original measures and Latvian versions based on teachers' evaluations at T1 and T2

		Original	Latvian T1 October 2022	Latvian T2 April/May 2023
Teacher self-efficacy	Instruction	0.81	0.88	0.90
	Adapt instruction to individual needs	0.87	0.92	0.94
	Motivate students	0.91	0.89	0.89
	Maintain discipline	0.9	0.92	0.95
	Cooperate with colleagues and parents	0.74	0.80	0.83
Burnout	Exhaustion	0.7	0.72	0.73
	Cynicism	0.82	0.78	0.77
	Inadequacy	0.71	0.60	0.66
	Overall	0.85	0.87	0.87
	Resilience	0.8-0.91	0.89	0.88

Data analysis

The mean scores were calculated using Microsoft Excel. The chi-square test was applied to compare all three groups at T1. JASP's repeated measures analysis of variance (ANOVA) procedure was used to analyze the intervention's effectiveness in terms of changes in teachers' self-efficacy, resilience and burnout in the experimental and control groups. Following the ANOVA, the Bonferroni post-hoc test was applied.

First, all three groups were compared to check whether there were any initial differences among them. No differences were found regarding gender distribution ($X^2(4)=4.34$, $p=0.36$), education level ($X^2(12)=11.13$, $p=0.52$), overall pedagogical experience ($X^2(12)=8.17$, $p=0.77$), or work experience in the particular school ($X^2(8)=4.58$, $p=0.80$). Accordingly, all groups are comparable, and the sample of teachers is homogenous with respect to all demographic variables.

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2 Results

The results of teachers' self-reported self-efficacy, resilience and burnout were calculated (see Table 3) to answer the research question about the status of teachers' self-efficacy, burnout and resilience in the whole sample of Latvian teachers.

Table 3: Descriptive statistics of teachers' self-efficacy, resilience and burnout at T1

		M	*SD*	Absolute minimum	Absolute maximum	Responded minimum	Responded maximum
Self-efficacy	Instruction	23.16	3.07	4.00	28.00	4.00	28.00
	Adapt instruction to individual needs	19.89	3.92	4.00	28.00	6.00	28.00
	Motivate students	20.22	3.77	4.00	28.00	6.00	28.00
	Maintain discipline	20.43	4.62	4.00	28.00	5.00	28.00
	Cooperate with colleagues and parents	23.57	2.87	4.00	28.00	13.00	28.00
Burnout	Exhaustion	3.31	0.92	1.00	6.00	1.00	6.00
	Cynicism	2.69	0.89	1.00	6.00	1.00	6.00
	Inadequacy	2.63	0.84	1.00	6.00	1.00	6.00
	Overall	2.87	0.77	1.00	6.00	1.00	6.00
	Resilience	3.16	0.78	1.00	5.00	1.00	5.00

Note: *M* – mean, *SD* – standard deviation.

At the beginning of the school year in October 2022, teachers mostly felt self-effective, but the considerable variation in the data shows that there were teachers who felt ineffective and others who felt a mastery of self-efficacy. The average varies from 19 to almost 24 on the 28-point scale, where a higher score means higher self-efficacy. Comparing the mean scores for different dimensions of self-efficacy (Figure 1), the higher scores are for teachers' reported cooperation with colleagues and perceived ability to teach their students. This means that teachers evaluate their strengths to be able to explain central themes of subjects they are teaching to students with different levels of knowledge and ability and to create and maintain collaborative partnerships with colleagues and students' parents.

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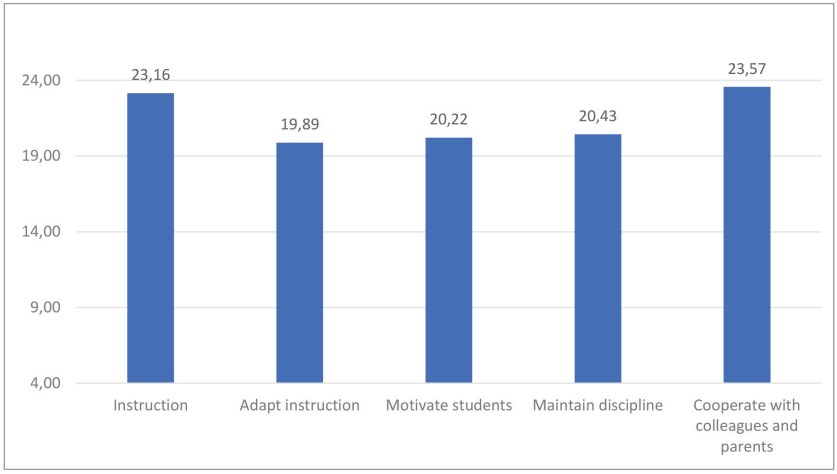

Figure 1: Mean scores of teachers' self-efficacy dimensions at T1 (N=289)

The teachers' burnout score varies from 2.63 to 3.31 on a 6-point scale, where higher results mean higher levels of burnout at work. Regarding the different dimensions of their burnout, their exhaustion scores are relatively higher (Figure 2). Resilience rates, recorded on a 5-point Likert scale, are also relatively average (3.16, *SD=.78*). The variation in data was from the minimal to the maximal value, meaning that there are resilient teachers and those reporting low levels of resilience.

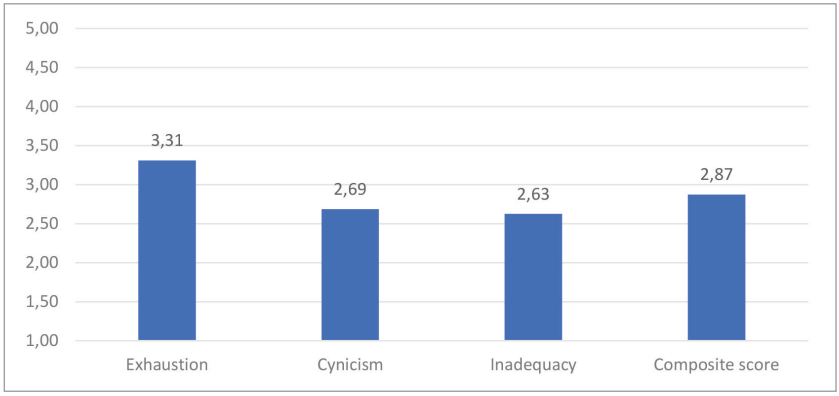

Figure 2: Mean scores of teachers' burnout dimensions at T1 (N=289)

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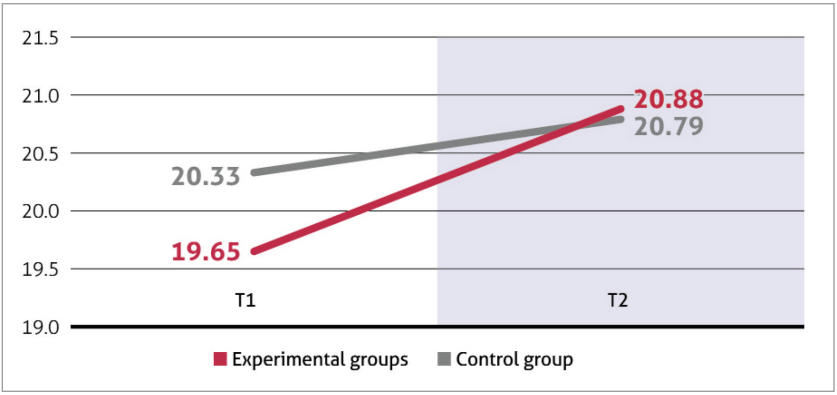
Next, data from the experimental groups (Groups A, B) at T1 and T2 was compared to test the hypothesis that teachers who implemented the project's materials, namely the OWC and the teacher's workbook, will report a significant increase in their self-efficacy and resilience and a decrease in burnout, while such changes will not be found in the control group (Group C).

The self-efficacy dimension "Adapting instructions" significantly increased in the experimental group ($F=12.73$, $p < 0.001$), and there is a trend of interaction between "Adapting instructions" and group ($F=2.71$, $p=0.10$). This means that implementing the project had an impact on teachers' self-reported ability to adjust instructions and, at a trend level, the increase in the experimental group in this indicator was more significant than the increase in the control group (post-hoc $t=-4.44$, $p_{bonf} < 0.001$ for the experimental group) (see Table 4 and Figure 3).

Table 4: Descriptive and inferential statistics for teachers' self-efficacy dimension "Ability to adapt instructions"

	Experimental groups		Control group		
	M	*SD*	*M*	*SD*	*F*
T1	19.65	3.92	20.33	3.93	12.74***
T2	20.88	3.82	20.79	3.88	
Teachers' self-efficacy *group					12.74

***p<0.001



Note: The interaction is statistically significant ($F=12.74$, $p < .0001$).

Figure 3: Changes in teachers' ability to adapt instructions between T1 and T2

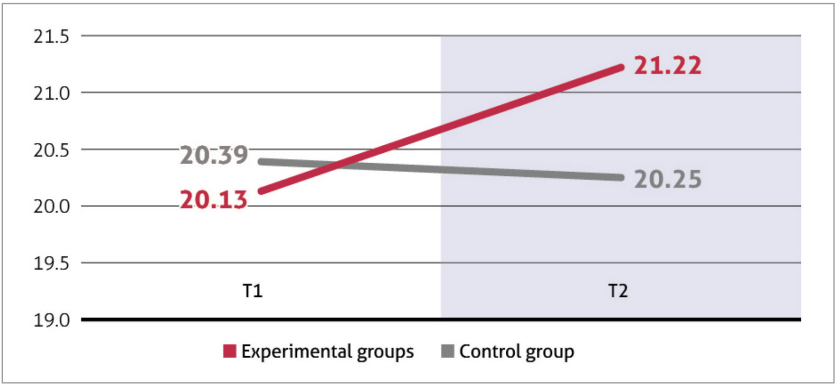
doi.org/10.35468/6091-03

The self-efficacy dimension "Ability to motivate students" increased in the experimental groups (t=-3.84, $p_{bonf} < 0.001$) and decreased in the control group. Both experimental effect (F (1, 267)=3.87, p=0.05) and the interaction between students' motivation and group are statistically significant (F (1,267)=6.49, p=0.01) (see Table 5 and Figure 4).

Table 5: Descriptive and inferential statistics for teachers' self-efficacy dimension "Ability to motivate students"

	Experimental groups		Control group		
	M	*SD*	*M*	*SD*	*F*
T1	20.13	3.65	20.39	3.97	3.87
T2	21.22	3.16	20.25	3.66	
Teachers' self-efficacy *group					6.49***

***p<0.001



Note: The interaction is statistically significant (*F*(1.267)=6.49, *p*=.001)

Figure 4: Changes in teachers' ability to motivate students between T1 and T2

The experiment had a significant effect on the self-efficacy dimension "Ability to maintain discipline" (F (1,267)=5,53, p=0,02), and the interaction between discipline maintenance and group was close to significant (F (1,267)=3,30, p=0,07). This means that self-efficacy in maintaining discipline among teachers

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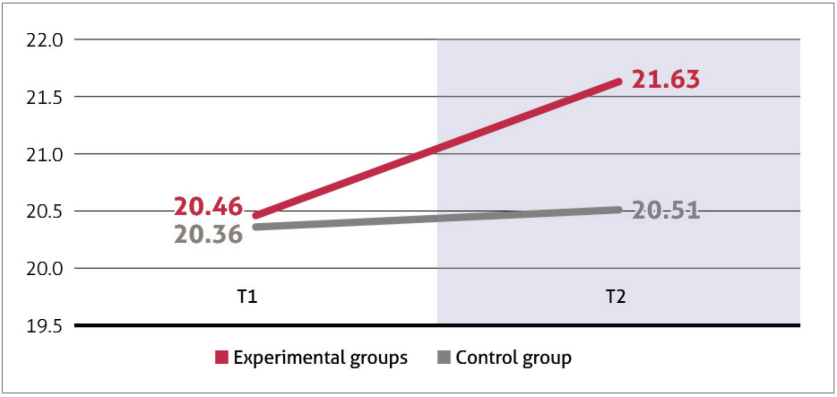
implementing the project increased during the experiment (post-hoc t=-3.55, p_{bonf}=0.003) (see Table 6 and Figure 5).

Table 6: Descriptive and inferential statistics for teachers' self-efficacy dimension "Ability to maintain discipline"

	Experimental groups		Control group		
	M	*SD*	*M*	*SD*	*F*
T1	20.46	4.58	20.36	4.70	5.53*
T2	21.63	4.40	20.51	4.17	
Teachers' self-efficacy *group					3.30

*p<0.05



Note: The interaction statistically significant (F(1.267)=5.53, p=.02)

Figure 5: Changes in teachers' ability to maintain discipline between T1 and T2

There is a tendency to increase in the quality of teachers' perceived collaboration with colleagues and parents in the experimental groups and a tendency to decrease in the control group; nevertheless, these changes do not quite reach a statistical significance (time*group F (1.267)=2.80, p=0.10). No changes in teachers' ability to teach/instruct students were found between the experimental and control groups.

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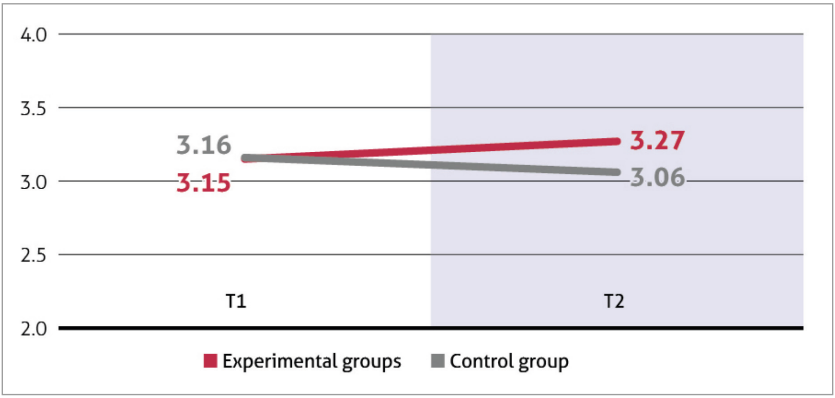
Changes in teachers' resilience during the experiment are statistically significant. The interaction between resilience and group (F (1.367)=7.07, p=0.008) indicates a significant increase in resilience in the intervention group during the project and a decrease in teachers' resilience in the control group (see Table 7 and Figure 6).

Table 7: Descriptive and inferential statistics for teachers' resilience

	Experimental groups		Control group		
	M	*SD*	*M*	*SD*	*F*
T1	3.15	0.80	3.16	0.78	0.06
T2	3.27	0.76	3.06	0.74	
Teachers' self-efficacy *group					7.07**

**p<0.01



Note: The interaction is statistically significant (F(1.367)=7.07, p=.008)

Figure 6: Changes in teachers' resilience between T1 and T2

There was no change in the burnout dimension "Exhaustion" during the experiment (the models are not statistically significant). The change in another burnout dimension, namely "Cynicism", tends towards statistical significance (F (1.267)=3.23, p=0.07), indicating that this burnout rate increased in both experimental and control groups during the project. However, it cannot be claimed that the increase was lower in the experimental group than in the control group

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(time*group F (1.267)=1.29, p=0.26). The same can be said for changes in the trend level in the "Inadequacy" dimension (F (1.267)=3.27, p=0.07). Feelings of inadequacy increased in all groups during the project, and we cannot conclude that the increase of this aspect of burnout was smaller in the experimental groups compared to the control group (time*group F (1.267)=0.65, p=0.42). The composite score of teachers' burnout showed no differences between groups during the intervention (the models were not statistically significant).

3 Discussion

The current study aimed to investigate the status of Latvian teachers' professional wellbeing at the beginning of the 2022/23 academic year in October 2022, addressing teachers' self-reported resilience, self-efficacy and burnout. It was found that Latvian teachers involved in the "Teaching to Be" project perceived themselves as sufficiently effective teachers. The majority of teachers perceived that they were able to collaborate with colleagues and parents effectively in terms of positive everyday cooperation and teamwork, as well as constructive problem-solving. Another highly-rated dimension of teachers' self-efficacy was their belief in their ability to teach students. Teachers reported that they feel able to explain subject matter to students with different levels of achievement, adapt instructions, and answer questions so that most students can understand the main principles of a topic. Previous research allows us to assume that teachers' perceived self-efficacy is associated with higher work engagement, commitment to teaching and less emotional exhaustion (e. g., Skaalvik & Skaalvik, 2014; Zee & Koomen, 2016).

At the beginning of the school year, the Latvian teachers also reported sufficient resilience concerning their ability to go through hard times and recover quickly after stressful situations. However, resilience should not be perceived as a synonym for positive adaptation since the ability to recover from stress or adversity is even more important than resistance in the face of negative events (e. g., Smith et al., 2008). It is also important to remember that resilience is strongly related to contextual and cultural factors (e. g., Ungar, 2012).

Teachers' level of burnout at the beginning of the school year was average, with a higher contribution made by the exhaustion dimension. Teachers reported feeling overwhelmed by their workload, which leads to poor sleep, bad consciences and neglected relationships with relatives and friends. One could speculate that it is perhaps easier to identify exhaustion among teachers since the survey items focused on work overload, sleep quality and neglect of meaningful relationships due to work circumstances. Previous research findings reported by Skaalvik and Skaalvik (2014) show that high self-efficacy is related to lower emotional exhaustion. Nevertheless, a risk factor for becoming exhausted was found in previous research in a sample of 630 Latvian teachers (Martinsone & Damberga, 2017),

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where more than half of the respondents associated their professional performance with their students' achievements. Therefore, linking professional self-esteem with student outcomes can increase teachers' stress and vulnerability.

The results showed a high degree of variation in self-efficacy, resilience and burnout. Thus, an individualized approach to promoting teachers' wellbeing should be applied. This finding is of great importance to allow employers to build their awareness of individual differences between teachers in terms of their stress tolerance, vulnerability to burnout and other factors crucial for teachers' wellbeing. Therefore, school administrators should plan, adapt and organize work tasks accordingly to prevent employees from experiencing work-related stress and provide sufficient support. However, this also highlights teachers' own responsibility to support their wellbeing based on their knowledge of their needs, strengths and available support. The OWC was built to help teachers strengthen their professional wellbeing both individually and collectively with colleagues.

Another goal of this research was to evaluate the effectiveness of the "Teaching to Be" project in the sample of Latvian teachers. The hypothesis that teachers implementing OWC would report increased self-efficacy and resilience and lower burnout and those in the control group would not was partially confirmed. It was found that the self-efficacy of teachers in the intervention group increased significantly in three aspects: adapting instructions, motivating students and maintaining discipline. There were also increases in their perceived ability to instruct students and build relationships with colleagues and parents; however, these were not statistically significant. It should be noted that these two dimensions of teachers' self-efficacy were rated the highest in the pre-test phase, which could explain why there was no significant increase during the experiment.

The finding that teachers' self-efficacy increased during the wellbeing-targeted interventions is in line with previous research results. For example, Cavioni et al. (2023) reported that teachers who implemented a mental health promotion curriculum in their classes reported a significant increase in self-efficacy and resilience. The current research also found a significant increase in the resilience of teachers in the intervention group, whereas teachers in the control group reported a significant decrease in their resilience.

The increase in resilience and self-efficacy may be attributed to both the content of OWC and the implementation of the "Teaching to Be" project. Teachers were trained before the project's implementation, and the project's team offered ongoing support (including technical support with the OWC game). The content of teachers' training and the OWC was specifically targeted to build teachers' social-emotional skills, improve coping, time management and instruction strategies, facilitate collaboration, etc. This could have a positive effect on teachers' individual resources and increase the availability of support from colleagues following their collaboration during the project.

doi.org/10.35468/6091-03

According to the results of previous studies that found teacher burnout decreases when their wellbeing is promoted (e. g., Bradley et al., 2018; Taylor, 2018; Turner et al., 2021), a decrease in Latvian teachers' burnout after participating in the OWC was expected. However, there was no decrease in teacher burnout in the intervention group. In fact, at the end of the school year, teachers' burnout had slightly increased in both the experimental and control groups in such aspects as diminished interest in students and ideations to leave the job, though the increases were not significant. It should be taken into account that the pre-test data was collected at the beginning of the school year when teachers had not yet been exposed to work-related stressful conditions, while the post-test data was collected at the end of the school year. Nevertheless, teachers' burnout might have been impacted by various factors, not just individual ones. Such objective factors as stress due to intensive socialization and high expectations regarding students' performance (Agyapong et al., 2022), as well as work overload, time pressure, etc., can contribute to increased levels of burnout among teachers. This result could thus be attributed to the presence of objective factors, which are not directly dependent on teachers, while the "Teaching to Be" intervention tools were intended to promote aspects of professional wellbeing dependent on teachers themselves.

4 Conclusions and Implications

The scores of teachers' self-reported resilience, self-efficacy and burnout at the beginning of the 2022/23 school year were moderate. Teachers reported more confidence in their ability to teach/instruct students and collaborate productively with colleagues and students' parents. Teachers reported a sufficient level of resilience, and their burnout rates were moderate. However, the variation in data was considerable, indicating that some teachers experienced low self-efficacy, insufficient resilience and high levels of burnout. This finding implies that teachers should be supported not just as a whole group; their individual needs and vulnerabilities should also be considered and addressed when implementing interventions for teachers' wellbeing.

As expected, the resilience of teachers implementing the OWC increased significantly, whereas in the control group, there was a decrease in teachers' resilience. In both experimental groups, an increase was found in three aspects of teachers' self-efficacy, namely adapting instructions, motivating students and maintaining discipline. However, no changes were found in teachers' reported burnout rates in the experimental and control groups at the end of the school year. Taken together, the results indicate that teachers' professional wellbeing can be supported by game-based learning and acquiring competence to support their social-emotional growth.

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Based on the "Teaching to Be" project's results in Latvia, several implications for education practice and policy can be proposed. First, social-emotional learning and promoting wellbeing should be included in pre-service teachers' education. Second, the whole-school approach to wellbeing, including the active leadership of the administration, should be implemented in every school. Third, implementing evidence-based programs with proven effectiveness has to be among the most important criteria when considering innovations in educational settings. Fourth, wellbeing programs should be integrated into already existing systems in schools. Fifth, efforts should be made in the public discourse to strengthen the education sector through positive feedback and appreciation for the significant impact of the teaching profession and supporting teachers' ability to invest in their professional wellbeing.

5 Limitations

This longitudinal quasi-experimental study has several limitations. Despite the involvement of schools from different regions of Latvia, the sample is not representative. For example, the gender distribution was disproportional, as the vast majority of respondents were female. Although this represents a typical population of teachers in Latvia, the conclusions from this study cannot be generalized to the whole population of Latvian teachers. Additionally, during the project's implementation, it was not possible to control for variables having a possible impact on the results, such as the introduction of the new competency-based curriculum in Latvian schools, regional reform at the national level, or school reforms, which led to school consolidation at one of the participating schools and a change of administration in two schools during the project's lifetime.

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Chapter 4

Portugal

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School climate and teachers' professional wellbeing in Portugal: A School Climate Analytical Framework (SCAF)

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Abstract

The study reported in this chapter is part of an Erasmus KA3 project about teachers' professional wellbeing. The aim of the study is to gain a better understanding of how Portuguese school teachers perceive the contribution of the school climate to their professional wellbeing. For this purpose, we conducted a qualitative interpretive study with a group of 57 Portuguese teachers. The data were collected through focus group interviews and the thematic analysis followed a hybrid approach. The deductive approach to the analysis, which was guided by a five-factor school climate model, indicated the sufficient adequacy of the teachers' testimonials to the theoretical model. An inductive approach looking for latent meaning led to the inclusion of a new dimension related to Social and Emotional Literacy as a potential new factor impacting school climate. Accordingly, we propose a School Climate Analytical Framework (SCAF), which can be used and validated in future research. We hope to contribute to filling a gap in the empirical literature on school climate in the Portuguese context.

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1 Introduction

The concept of school climate has been a topic of discussion in the relevant literature for a long time. School climate is a multidimensional concept that has been analysed and discussed from different perspectives according to the specific interests of researchers and academics. Some studies have focused on the objective characteristics of school climate, while others have placed the emphasis on the subjective elements of the concept. From an empirical point of view, school climate has been addressed mainly from the perspectives of school personnel, parents, and younger and older students in studies of a quantitative nature (Martinsone et al., 2023). Less attention has been paid to the study of school climate through the lenses of teachers, especially in what concerns the relationships between school climate and teachers' professional wellbeing. It is thus important to listen to the teachers' voices on a topic of interest to themselves and ultimately to their students.

The qualitative interpretive study reported in this chapter is part of a larger Erasmus KA3 research project titled "Teaching to Be - supporting teachers' professional growth and wellbeing in the field of social and emotional learning". It builds upon the testimonials and experiences of Portuguese teachers to explore and gain a better understanding and greater awareness of how the characteristics of school climate can contribute to promoting teacher professional wellbeing. These teachers contributed to the development of professional wellbeing resources through involvement in a participatory action-research methodology as part of the larger project. We used Johnson et al.'s (2007) five-factor model as a conceptual framework for data analysis, as follows: 1. Collaboration; 2. Instructional innovation; 3. School resources; 4. Decision-making; 5. Student relations. The choice of Johnson et al.'s (2007) model resulted from the literature review and the recognition that it is the theoretical framework that best fits the Portuguese school climate context.

School climate – a multidimensional concept

Research into school climate started in the early twentieth century (Dewey, 1927; Perry, 1908) and has been the subject of systematic studies since the 1950s with a notable research interest in the last 30 years. School climate was initially a concept with unclear boundaries. However, it should be noted that much of the research that has been undertaken on the topic does not relate specifically to school climate. A study aimed to scrutinise the keywords used by researchers in association with school climate over the last decades (Avi Astor & Benbenishty, 2018) revealed the use of a variety of terms such as school reform, social and emotional learning, life competencies, school mission and values, school organisation, leadership and school administration, teacher-student relationships, and school safety. This terminological diversity is revealing of the number of the many different dimensions and perspectives that have been adopted to define and characterise

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school climate. Anderson (1982) showed how challenging it is to define school climate, as each professional employs a wide range of representations, more or less implicitly on the subject according to their own interests and work contexts. For example, there is a common misunderstanding between school climate and school safety. However, the quality and atmosphere of school life go beyond safety concerns. School climate has a variety of meanings and significance. Brookover et al. (1977) posit that the school climate includes the social system of shared norms and expectations. West (1985) relates school climate with the set of norms and expectations that teachers have for students; Brown and Henry (1992) place the focus on teachers' morale; Short and Rinehart (1992) emphasise the level of teachers' empowerment; Johnson et al. (1996) highlight the students' perceptions of the "personality of a school"; and Bernstein (1992) addresses the environment for students, measured by the amount of negative student behaviour.

More recently, the adoption of a systemic and contextual approach has led to a common agreement shared among researchers and academics about school climate as the result of multifaceted and dynamic procedures and logistics inside the organisations. This common agreement is best captured in the definition of the National School Climate Center (Cohen et al., 2009), according to which school climate reflects the judgments of parents, teachers and students concerning their experiences of life, learning, and work within the school, rather than resulting from a straightforward individual perception. This notion of school climate encompasses the different educational actors who participate in school life and interact systematically with the school's natural environment. The definition of school climate must include the experiences and perceptions of all members of the school community (Johnson et al, 2007). Therefore, it must concern not only the safety of teachers and their social and emotional relationships with colleagues and school principals, but also the perceptions of parents, students and teachers (Kutsyuruba et al., 2015). This diversity of indicators shapes the understanding of school climate and determines actions to improve it.

According to the School Climate Center (Cohen et al., 2009), school climate refers to the quality and lifestyle at school. School climate is based on the models that people have of their life experience at school. It reflects the standards, goals, values, interpersonal relationships, teaching, learning, management practices and organisational structure included in the life of the school (p. 180).

Cohen et al. (2009) highlight five elements that shape school climate: Relationships, Teaching and Learning, Security, Physical Environment, and Feeling of Belonging. Relationships are concerned with respect for diversity, shared decisions, student participation, teachers' collaboration and support, engagement in the school community, and shared vision between parents and teachers on learning and behaviour. Teaching and Learning are related to quality of instruction, high expectations for success, differentiated teaching, creativity, social and emotion-

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al learning, ethical values, professional development, support, and availability of the school leaders. Security goes beyond the feeling of physical security to include emotional security supported by predictability, crisis plans, psychological control, clear consistent rules, tolerance for difference, responses to harassment, and conflict resolution (Darling-Hammond & Cook-Harvey, 2018). Physical Environment involves cleanliness, adequate space and equipment, appropriate learning materials, aesthetics, and extracurricular offers. Feeling of Belonging is about being connected to the school community, commitment, and enthusiasm of teachers and students.

According to the OECD (2013), school climate depends on a set of factors which, although differentiated, work interconnectedly about the quality of the school buildings, equipment and spaces; the relationships between teachers, students and families; the teacher's level of morale, commitment and involvement in the work; and leadership, shared values and common goals.

There is empirical evidence to support the relevance of school climate in schools at different levels. Several studies indicate that an encouraging and optimistic school climate increases teacher effectiveness (Bryk et al., 2010), results in more productive learning time, enhances a culture of school improvement (Johnson et al., 2012), increases teacher satisfaction (Kraft & Papay, 2014), and promotes a professional environment that supports staff stability (Papay & Kraft, 2017). Research has also shown that a positive school climate correlates positively with academic achievement, adaptive psychosocial adjustment, satisfaction with school, sense of belongingness, sharing of academic values, motivation to learn, reduced behaviour problems, parent-school engagement, reduction of teachers' burnout, and increased wellbeing (Grayson & Alvarez, 2008; MacNeil, et al., 2009; Roeser et al., 1999; Vieno et al., 2005; Wang et al., 2010; Zullig et al., 2011).

Based on what we have been discussing so far, within the scope of the study presented in this chapter we can define school climate grounded on determining factors of the quality, attributes and character of school life. School climate is grounded on the value systems and agency of all educational actors, which reflect the experiences and levels of involvement of teaching and non-teaching staff, students, and parents in school life as well as the norms and regulations that guide interpersonal relationships, teaching and learning practices, and organisational structures.

School climate and teachers' professional wellbeing

Teachers' wellbeing is a crucial element for the success of schools and educational systems (Dreer, 2022). Teachers are a highly qualified professional group whose working circumstances have become more and more challenging in the last decades. Besides the growing number of bureaucratic duties, they have to deal with increasingly heterogeneous groups of students requiring the adoption of

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differentiated and inclusive practices (Ferreira et al., 2023; Ferreira & Reis-Jorge, 2022). These factors, along with the calls for the digitalisation of schools require constant adjustments in teachers' routines (Ferreira, 2022). Research shows that teachers who are more stressed are less likely to establish close interactions with students which, in turn, can influence student achievement (Roorda et al., 2011), and have a direct effect on school climate (Fernet et al., 2012).

Ryff (1989) identified some aspects that can help a better understanding of the concept of wellbeing. According to the author, autonomy, environmental mastery, positive relationships with others, purpose in life, awareness of self-potential, and self-acceptance are components of teacher wellbeing. Diener and Suh (1997) considered that wellbeing consists of three interrelated elements: life satisfaction, pleasant affection, and unpleasant affection. Viac and Fraser (2020) defined teacher wellbeing as "teachers' responses to the cognitive, emotional, health and social conditions about their work and their profession" (p. 18).

Teaching can be a fulfilling job that involves meaningful, influential, and significant work. However, due to its multifaceted character, teaching can also be difficult to manage and an overwhelming job (Ferreira, 2022). Nowadays, when schools are trying to increase student attainment with a reduced budget, teachers' wellbeing can be underestimated, not being considered a priority for the functioning of the school (Collie et al, 2011). Research has shown that stressful and challenging working conditions have a massive impact on teachers' purposes and professional engagement (Collie et al., 2012; Klassen et al., 2013).

Yao et al. (2015) highlighted the importance of teachers' perceptions of the school climate as a determining factor of teacher turnover. Furthermore, the authors stated that the teachers' negative views of the school climate also concur with emotional exhaustion which leads to poor work engagement. Ozdemir and Cakalci (2022) found a moderate relationship between school climate, individual innovativeness, and teacher autonomy. Certain contextual factors have been identified as relevant to teachers' wellbeing and school climate such as teacher teamwork and cooperation, student-teacher bonds and work autonomy (Aloe et al., 2014; Collie & Martin, 2017; Dreer, 2022; Roorda et al., 2011; Weiland, 2021). All these dimensions appear to be captured in Johnson et al. 's (2007) five-factor school climate model:

- **Collaboration** – teachers' feelings of belongingness and cooperation within the school community;
- **Instructional innovation** – the openness of the school towards new teaching methods and professional development;
- **School resources** – adequate school equipment, such as teaching materials and media;

doi.org/10.35468/6091-04

- **Decision-making** – constructive choices and open-mindedness, as well as teachers' autonomy and participation in school decisions;
- **Student relations** – effective communication supported by trustful teacher-student and student-student relationships.

These five factors are significant to teacher wellbeing (Gray et al., 2017; Thapa et al., 2013), although contextual factors relating to school climate are moderately stable and-require substantial effort from school agents to change them positively (Rhodes et al., 2009; Yao et al., 2015). Dreer (2022) argues that the wellbeing of teachers is not only dependent on contextual factors but is also influenced by teachers' job crafting, that is, teachers' ability to adjust their working conditions to suit their capabilities and needs (Seppälä et al., 2020). This is in line with the expectations created by prior findings that highlight the importance of job crafting for teacher wellbeing (Peral & Geldenhuys, 2016; van Wingerden & Poell, 2019). A constructive school climate has the potential to contribute to teachers' wellbeing and professional development and create an environment that facilitates student achievement and growth (Gray et al., 2017). A better understanding of the factors that influence school climate and how they are related to teachers' wellbeing is critical to delineate and implement mediation interventions aimed at supporting teachers and students as they strive to ensure success and wellbeing. The empirical study reported in the remainder of this chapter builds upon the teachers' voices to explore the relationship between school climate and wellbeing based on their testimonials and experiences.

2 Method

Research objectives and type of study

Our research aimed to gain a better understanding of how Portuguese school teachers perceive the contribution of the school climate to their professional wellbeing. More specifically, our objectives were twofold: (i) to understand how teachers characterise the climate in their schools, and (ii) to identify the factors of school climate that teachers consider most relevant to their professional wellbeing. In order to achieve our objectives, we conducted a qualitative interpretive study based on the teachers' answers to focus group interviews. Interpretive research builds upon ontological and epistemological views of reality as socially constructed through the experiences of social actors (Pervin & Mokhtar, 2022). This approach is well suited to investigate human behaviours and experiences within their social, cultural and professional contexts (Pulla & Carter, 2018). We expected to use rich data to produce detailed descriptions and interpretations of the teachers' experiences and perceptions of the phenomenon under investigation.

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Participants

The participants in the study were selected by convenience sampling method (Cohen et al., 2018) of the teachers in five schools (1 private and 4 public schools) from different regions of Portugal who responded positively to the invitation to participate in the research. The group is composed of 57 teachers, of which 4 males and 53 females. 36 participants were primary school teachers (grades 1 to 4) and 21 middle school teachers (grades 5-9). Most of the teachers (n=43) were 30-54 years of age. 39 teachers had a Bachelor's degree, 17 had a Master's degree, and 1 had a Doctorate. In terms of professional experience, most of the participants (n=38) had between 21 and 25+ years in the teaching profession.

It can be asserted that the group of participants were suitable for the research in terms of academic qualifications, teaching experience, and grade levels taught.

Participation in the research was on a voluntary basis. The teachers obtained permission from their principals to participate in the study. For informed consent, the teachers were given the rationale for their participation in the study and were assured of confidentiality and anonymity.

Data collection and analysis

Focus group interviews (Onwuegbuzie et al., 2009; Smithson, 2000) were chosen as the method of data collection. We conducted 3 semi-structured rounds of interviews with each school, in a total of 15 focus group interviews. Table 1 shows the number of teachers in each focus group per school.

Table 1: Distribution of the teachers by focus group per school (N=57)

Schools	City	Nº of Teachers
School A- public	Lisboa	11
School B- public	Lisboa	11
School C- public	Évora	8
School D- public	Golegã	16
School E- private	Lisboa	11

Three semi-structured interview protocols (Patton, 2015) were developed building on the theoretical background from the relevant literature and the research objectives. The alignment of the topics for each focus group discussion was chosen to allow further exploration of relevant topics emerging from previous rounds. The following are examples of questions included in the interview protocols which were developed for the larger Teaching to be Erasmus project.

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- What are the characteristics that you consider most relevant and salient in the climate of your school? Please give example(s).
- How do your school leaders involve the teachers in the decision-making process? Please give examples.
- In your school, how do teachers contribute to a positive school climate?
- How do you characterise your relationship with students in your classrooms?

The focus group interviews were online via ZOOM and each round lasted 60-90 minutes. The interviews were conducted by all the authors (2 authors per focus group). The focus group interviews were tape-recorded with the permission of the participants and then transcribed *verbatim* for the purpose of analysis. In order to ensure confidentiality and anonymity the transcripts were coded T1 to T57 and the direct quotes used as evidence in this study are coded as in the following example: (T1/R2/P5), where T1 stands for Teacher number 1, R1 stands for Interview Round number 2, and P5 for Page number 5 of the transcription.

The data were analysed following the six-step method of thematic analysis described by Braun and Clarke (2006) as "a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex account of data" (p.78). A hybrid approach was adopted for the analysis which unfolded into two stages: a deductive stage followed by an inductive stage (Fereday & Muir-Cochrane, 2006; Swain, 2018).

In the deductive stage the data were analysed in the light of the analytical framework derived from Johnson et al.'s (2007) described above. After familiarisation with the entire body of data, the second step involved the generation of initial codes in a systematic manner. Given the concern with analysing the data with the research objectives and analytical framework in mind, a code was assigned to each segment of the data that was relevant and meaningful. A chart for the themes, sub-themes, and units of meaning was created and underwent several revisions.

This was followed by a data-driven inductive stage of analysis looking for patterns likely to complement the analytical framework and which might remain otherwise unnoticed. At this stage the analysis involved looking for latent meaning in the data following an iterative and reflexive process of qualitative inquiry described by Tobin and Begley (2004) as the overarching principle of "goodness". The data collection and analysis were undertaken progressively as the data collection unfolded. The analysis was conducted by three authors of the study. At first, it was conducted individually following the procedures described above. The comparison of the results of the individual analyses allowed some adjustments and the elaboration of a final chart. This strategy, involving more than one researcher observing the same data, is described by Denzin (2009) as 'investigator triangulation' as a way of validating the analysis and the findings.

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3 Results and Discussion

As explained earlier, in the first stage of analysis we adopted a deductive approach. The deductive coding allowed us to look at the data through a tightly focused lens to identify and categorise the relevant information in the teachers' testimonials for each of Johnson et al.'s (2007) factors. This process resulted in a matrix of analysis illustrated in Table 2.

Table 2: Illustrative examples of the teachers' testimonials about school climate distributed by Johnson et al.'s (2007) five-factor framework

Factors	Evidence from the teachers' testimonials
1. Collaboration	"Sharing materials and strategies, on a personal and professional level" (T14/R1/P2).
	"Sharing problems, ideas, creating opportunities" (T28/R1/P4).
	"We work a lot together, they're very creative, in a good mood" (T43/R1/P8).
	"We all work well together, we come up with new strategies and we have the ability to overcome the problems that arise" (T51/R1/P11).
	"What's most important to me is the mutual help between teachers" (T11/R2/P5).
	"There is a lot of cooperation between colleagues, even though this is a profession in which there is sometimes competition" (T51/R2/P6).
	"Sharing of good practices, and cooperation and respect between colleagues" (T3/R3/P3).
	"The team is fundamental to satisfaction in the workplace" (T4/R3/P12).
2. Instructional innovation	"We have an innovation plan that gives me the freedom to do what I need" (T1/R1/P8).
	"This school is very open to innovation and proposals. We suggest and substantiate our proposals and move forward" (T16/R1/P15).
	"We are persistent and daring in certain situations where we feel the need to use active teaching methodologies " (T20/R2/P3).
	"When the team is innovative, it's easier for them to be accepted and validated by management" (T17/R2/P7).
	„We all have creativity, innovation, accepting challenges and connecting with colleagues, children and parents" (T28/R3/P4).

doi.org/10.35468/6091-04

3. Decision-making	"The Director has leadership, but gives autonomy" (T13/R1/P4). "Sometimes we suffer some mediation in our autonomy. Sometimes it has to do with the time and space in which we want to do things" (T1/R2/P5). "I have autonomy to change things, autonomy and confidence and motivation" (T39/R3/P7). „Teachers make decisions for themselves. Everyone can make mistakes, but only those who make decisions make mistakes" (T56/R3/P9).
4. School resources	"It's a school with a lot of human resources" (T4/R1/P3). "Lack of technical and human resources to deal with all the children" (T19/R2/P2). "In emotional literacy, the biggest stress is not having enough resources" (T31/R2/P4). „The lack of internet sometimes leads to situations with interference that greatly affects the teacher's wellbeing" (T44/R2/P5).
5. Student relations	"What we do for them and to them; seeing the students' happiness; making every day a special day" (T9/R2/P7). "We have to adapt to the students' interests, try to get the best out of each student and develop their abilities" (T40/R2/P11). "The relationship with the students. What the students give us every day is our emotional salary)" (T19/R3/P6). „A climate of honesty and trust in which students feel they can rely on their teachers" (T34/R3/P10).

Collaboration

As can be seen in Table 2, our teachers considered Collaboration as an important factor of school climate. In this respect, they emphasised sharing with colleagues relevant aspects of their teaching practices (materials and strategies) and affective aspects inherent to the work carried out at school (teamwork, cooperation, mutual help). As one of the teachers said,

> *There is a sharing and dedication on the part of the teachers in the activities to involve the students and colleagues, since everyone wants to add something. Knowing how to listen and be attentive to others is very important and the strong point is wanting to collaborate and not being afraid to share* (T21/R1/P8).

According to Ozdemir and Cakalci (2022), group work and collaboration among peers is an aspect valued by teachers. Collaboration fosters a positive school climate, paving the way for the school to develop an organisational culture of cooperation guided by common goals.

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Instructional innovation

The teachers also considered Innovation to be an element associated with good practices and creativity, and a stimulus for their work, especially in a climate of openness and acceptance on the part of colleagues and school leaders. The following statement is illustrative of the feelings shared among the participants:

> *This group is very open to innovation and proposals, what we suggest and substantiate is accepted and we move forward. We all have creativity, we use diversity in the application of strategies, we have the ability to improvise in different situations, and we are persistent and daring in certain situations* (T18/R2/P11).

Innovation is a relevant dimension of development and the basis of education (Baharuddin et al., 2019; Ozdemir & Cakalci (2022). According to Baharuddin et al. (2019), three arguments justify the need for, and the importance of innovation in teachers' work: 1) the constant evolution and development of society, so teachers must adopt an innovative and up-to-date stance; 2) developments in teaching and learning require teachers to innovate and adopt appropriate and challenging strategies to enhance students' motivation and better learning; and 3) the fact that the school, as an educational organisation is a model of innovation for society in general. Therefore, teachers have a crucial role as initiators and implementers of innovation in education (Ozdemir & Cakalci, 2022).

Decision-making

Decision-making appears in the teachers' testimonials closely linked to Autonomy. Our participants claimed that trust in the leaders about their work as teachers favours their decision-making as professionals and consequently motivates them to take more initiative and be more autonomous. For example, one teacher pointed out that:

> *If there is a relationship of respect and trust between everyone, there will be autonomy. In the school where I work, I've never felt that autonomy is in question. We feel we have autonomy and it allows us to do better work in the classroom and the relationship with management is better* (T42/R2/P9).

The opinions of our teachers echo the claims made in the literature about the importance of autonomy as a catalyst of teachers' commitment to the schools in which they work, giving them the opportunity to show their potential as professionals and develop a more positive attitude towards their work (Ozdemir & Cakalci, 2022). Autonomy at work also increases the feeling of responsibility, which in turn leads to more proactive behaviour, new ideas and suggestions (Baharuddin et al., 2019).

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School Resources

For our teachers, school resources are fundamental and often insufficient to meet all the students' educational needs. This view is best illustrated in the following testimonials:

> *The lack of resources, on the part of the school, sometimes generates negative experiences. Resources are important for the teaching-learning process and make all students participate in everything, such as projects* (T5/R1/P3).
>
> *In concrete terms, the problems with materials in the school that are requested, and because they don't exist, generate a bad feeling; the lack of internet leads to situations with interference that really messes with the teacher's wellbeing* (T23/R1/P7).

Material resources as a topic has been mentioned in previous research as essential tools for teachers to carry out effectively their work, thus contributing to professional wellbeing. According to Johnson et al. (2012), administrative support, school facilities and class size appear to be more important than teachers' salaries or the demographic characteristics of the students. The authors point out that working conditions have a critical influence on teachers' career plans and consequently on their professional wellbeing.

Student relations

In reflecting on the factors that contribute to their professional wellbeing the teachers placed some focus on affective and emotional aspects which point to the importance of happiness and wellbeing of the students and themselves. Our teachers also stressed the importance of establishing a relationship with students based on trust and honesty, as well as valuing the qualities and abilities of each student:

> *Today students feel that the teacher is human, they see teachers as friends they can talk to and this helps to maintain discipline* (T34/R3/P2).
>
> *It is therefore important to train good people, to promote experiences (in and out of school) and training that is more global in nature. Teachers are predisposed, and the conditions exist, to establish positive relationships* (T52/R3/P4-5).

For teachers, interpersonal relationships with students can be a source of satisfaction and belongingness, contributing to their wellbeing (Farhah et al., 2021). Thus, the perception of a constructive school climate promotes cooperative learning, group cohesion, respect and mutual trust, thus increasing students' level of involvement in the school activities and the quality of learning (Thapa et al., 2013).

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Social and Emotional Literacy – an emerging theme

School climate is about the connections and exchanges among all members of the school community. This includes the school culture, structure, resources and how individuals appraise experiences and interactions within the school. School climate and social and emotional learning (SEL) have often been treated separately by researchers and practitioners, although they are co-influential, benefit each other, and both are necessary to build healthy schools (Jennings & Greenberg, 2009). The social and emotional competence of each member of the school community, both individually and collectively affects the school climate and creates the conditions for SEL and professional wellbeing (Dusenbury & Weissberg, 2016; Osher et al., 2004). The recognition of social and emotional skills as an important resource for individuals in the different domains of their lives is based on the consensus among researchers that the learning of relevant social and emotional skills influences wellbeing (e. g. Fernández-Martín et al. 2021; Llorent Garcia et al., 2022; OECD, 2013; UNICEF, 2021).

The outcomes of empirical research on the relationships between social and emotional literacy and school climate may have informed a significant move towards coordinated, systematic schoolwide programming that is ecological, integrates school climate and SEL approaches, and prioritises the engagement of the larger school community (CASEL, 2017; Osher et al, 2015). This new movement includes energies to join in and build positive school climates that support SEL (Domitrovich et al., 2017; Yoder, 2014).

The testimonials of the Portuguese teachers in our study are in line with the five factors identified by Johnson et al. (2007). However, in the second stage of analysis, i.e. the inductive one, another theme stood out in the teachers' testimonials expressing the value they accorded to social and emotional aspects which, in their views, impact the school climate and professional wellbeing. This new theme, which we called "Social and Emotional Literacy" is divided into three sub-themes: Empathy, Self-Regulation, and Social Awareness, as represented in Table 3.

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Table 3: Illustrative examples of social and emotional literacy – an emerging theme

Theme	Sub-themes	Evidence from the teachers' testimonials
Social and emotional literacy	Empathy	"We have someone who listens to us and we can talk to" (T18/R1/P7). "There's a safe harbour between colleagues at school" (T23/R1/P8). "Sympathy is a factor that helps create empathy"(T39/R2/P4). "A good working environment favours empathy between colleagues" (T8/R2/P6). "Empathy requires availability of others around you" (T51/R3/P7). "Empathy is an essential factor for positive relationships" (T42/R3/10)
	Self-regulation	"Sharing our expectations with colleagues helps to control our emotions" (T44/R1/P14). "Sometimes it is difficult to manage our emotions in the classrooms" "Well, I think it's very important to hear the other's opinion on your problem or your current point of view. Because that also puts some things into perspective" (T38/R2/P3). "The teachers work together as partners, and that helps greatly to manage those emotions and behaviours" (T20/R2/P9).
	Social awareness	"An environment of honesty and trust in which students feel they can trust teachers" (T3/R1/P3). "To raise good people; to promote adequate social experiences inside and outside the school" (T12/R1/P7). "Our school culture allows us to be with people who share values and teaching beliefs" (T33/R3/P9). "The team is fundamental to satisfaction in the workplace, and to our engagement and well-being" (T22/R3/P12).

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Empathy

Empathy plays a fundamental role in interactions between people and social relationships, as it helps to provide an adaptive response, perceiving the emotional states of others, and not becoming overwhelmed (emotional disconnection) (Martinsone & Žydžiūnaite, 2023). This type of response involves and mobilises the ability to regulate one's own emotions, inhibit automatic reactions and adapt the response accordingly. For Marques et al. (2020) being empathetic contributes to better quality of social relationships, increases teacher satisfaction, improves communications, and supports interactions (Martinsone & Žydžiūnaite, 2023).
Empathy is valued in our participants' testimonials. In characterising the relationships that they establish within the school there seems to be unanimity among our teachers in considering that taking others' perspectives, showing respect for and trusting others, and recognising strengths in others are crucial for personal and professional satisfaction and, consequently, for teacher wellbeing:

> *For me, empathy is one of the basic principles of my pedagogical work. I have to be able to empathise with my counterpart to a certain extent to actually be able to move what I want to change in him. This is a basic pedagogical principle, what others can do more or others less and is more necessary in some subjects and less in others* (T14/R2/P3-4).
>
> *Uncertainty in present items makes mutual conversations among teachers helpful, and sticking together supports us psychologically. And that also has to do with friendship somehow* (T26/R2/P9).

In stressing the importance of an empathetic relationship between teachers and students one participant highlighted the figure of the teacher as a role model in the following terms:

> *As a teacher, one of the most important things is to be empathetic, because today you have to be able to empathise with students. Especially nowadays it is important to be able to put yourself in the shoes of others. Children are also expected to be empathetic. Then you have to be able to set an example* (T44/R3/P5)

Self-regulation

Yin et al. (2016) state that trust between peers plays an important role in teachers' emotional regulation processes. Teachers feel more comfortable being themselves when there is a perception of a safe and positive environment, which leads to freer and more relaxed performance, and the reduction of stress levels. In addition, teachers who trust their colleagues tend to be more authentic, thus reducing the use of confrontational strategies, and favouring cooperative strategies.
Effective school principals play an important role in creating a school environment where teachers' concerns are taken seriously, and where they are encouraged to learn from their peers and solve problems together in an atmosphere of mutual

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accountability (Johnson et al., 2012). Cooperative work and mutual support, opportunities for self-initiative and having a word to say in the decision-making processes are recurrent topics in our teachers' discourses about their emotional wellbeing as illustrated in the following passages:

> *The great closeness between colleagues sometimes generates conflicts that are resolved in the end. So, the most important thing for me is the mutual support between teachers, the atmosphere and friendship that is created, what each one can give, and does give* (T27/R1/P11).
>
> *It is necessary to revisit the rules throughout the year. It is necessary to define very concrete and clear rules, managing emotions and behaviours is work in progress* (T57/R2/P12).
>
> *Different classes have very different behaviours. Teachers must be aware of themselves emotionally to respond to this diversity* (T1/R3/P4).
>
> *I also find it extremely pleasant at our school that we can take initiative and participate more actively in setting objectives for the school and for ourselves, and that contributes to our emotional wellbeing* (T18/R3/P10).

According to one participant, teachers would appreciate being involved in initiatives on emotional literacy: *"These relationships come through experience. It would be important for our school to have projects on emotional literacy for teachers, just as there are for students"* (T44/R3/P9). Emotional literacy helps in the development of self-regulation skills (Yin et al., 2016). This points to the relevance of including training in emotional literacy as part of ongoing professional development programmes for teachers.

Social awareness

School climate seems to be strongly influenced by school leadership practices, such as promoting positive relationships and interactions, respect for all members of the school community, and effective communication. Thus, fostering supportive relationships between peers and between leaders and teachers helps to promote emotional wellbeing and create a school culture guided by values (Johnson et al., 2012; Lester et al. 2020; Yin et al., 2016). These findings of previous research are echoed in the following testimonials of our participants:

> *Theoretically, we all start from a predisposed mindset in which there are conditions conducive to positive relationships between teachers and students* (T37/R2/P2).
>
> *Students' behaviour influences the classroom climate but we need to be careful because t it is many times shaped by the behaviour of the teachers* (T53/R2/P6).

The ability to recognise situational demands and opportunities on a day-to-day basis appears to be crucial and has an impact on the quality of interpersonal relationships and the school climate. In this way, the culture of the school, the type of leadership and its relationship with teachers play a relevant role in professional satisfaction and development (Johnson et al., 2012). As some of our participants put it,

doi.org/10.35468/6091-04

When we are in trouble we know whom to turn to. We share the difficulties with our colleagues. Working in partnership helps a lot to overcome difficulties. It is natural to share good and bad situations because we work in partnership (T27/R1/P5).

Whenever we knock on the door of the principal it is always open, and the middle management is also available to help and encourage us (T32/R2/P4).

According to Cohen et al. (2009), the teaching and learning process is fundamentally relational, and norms and values regulate the interactions that take place at school and are an essential component of the school climate. The authors add that one of the most important aspects of relationships is the way people feel connected to each other and how they understand the influence of organisational climates on behaviour.

4 An extension to Johnson et al.'s (2007) model – A Social Climate Analytical Framework (SCAF)

Following on from the analysis and discussion of the testimonials of the teachers who took part in this study, we propose a framework for analysing school climate which is based, above all, on the factors in Johnson et al.'s model (2007). However, we added two elements to the authors' model as represented graphically in Figure 1.

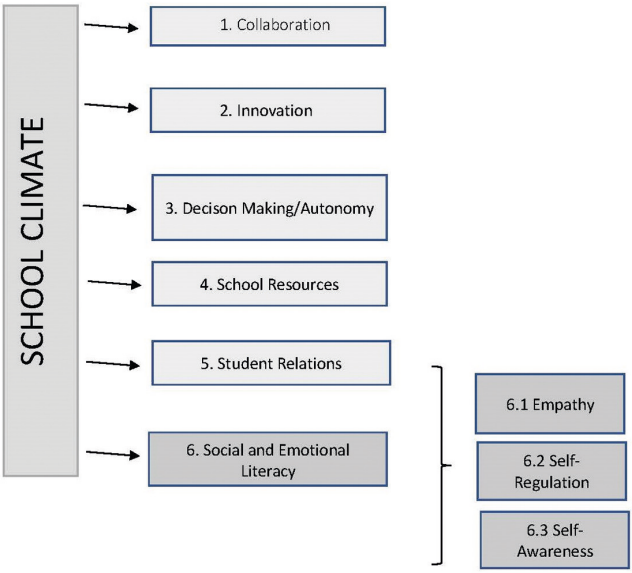

Figure 1: School Climate Analytical Framework (SCAF); self-drawn

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As an extension to Johnson et al.'s model we added the term "Autonomy" to the authors' "Decision Making" given that the former concept was valued by our participants in association with the latter one. In general, the concept of "Decision Making" does not seem to be clearly defined and distinct from the concept of "Autonomy" in the extant literature. In previous studies, these two concepts appear discussed either as part of a single dimension (e. g., Johnson et al., 2007) or as two separate dimensions (e. g., Ozdemir & Cakalci, 2022). For our participants, decision-making stems from and reflects the degree of autonomy granted to teachers. As argued by one of our participants *"being recognised as autonomous professionals helps us to be more proactive and feel more confident in our choices and decisions"* (T43/R3/P12).

A more significant addition to Johnson et al.'s (2007) model was the inclusion of a new theme designated as "Social and Emotional Literacy" which emerged from our participants' testimonials and is supported by the specialised literature. As discussed above, this is a recurrent theme in recent literature (e. g. Cohen et al., 2009; Johnson et al., 2012; Lester et al., 2020; Yin et al., 2016) which has the potential to become a sixth factor likely to enrich Johnson et al.'s (2007) school climate model.

5 Conclusions

School climate is a broad and multifaceted concept that involves many aspects of the educational experiences of teachers, students and other educational agents. A positive school climate is critical to the effective performance of teachers and the success of students.

The realities and experiences reported by the Portuguese teachers in our study are in line with some of the proposals outlined in the Report of the International Commission on the Futures of Education (UNESCO, 2021) pointing to the construction of the school climate based on the view of teaching as a collaborative profession.

Creating a school climate that encourages relationships of respect, trust and affection among the school community members and favours diversity and flexibility should be a major aim of today's school system. School efforts should be made to foster resilience-building interactions through inclusive school-level policies and initiatives, as well as comprehensive, multi-tiered, whole-school approaches to improve social and emotional literacy and develop social and emotional competencies in students and teachers.

Johnson et al.'s model (2007) is an important contribution to the theoretical and conceptual discussion of school climate. The five factors in the model represent the psychosocial context in which teachers work and teach. In our research,

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we used Johnson et al.'s (2007) model as a conceptual framework to explore the relationships between school climate and teachers' wellbeing based on the perceptions and experiences of our participants. The deductive approach to the analysis of our data allowed us to ascertain the sufficient adequacy of the teachers' testimonials to the model.

The qualitative analysis of the data from an inductive perspective suggested an addition to the model with the inclusion of the concept of autonomy in Johnson's et al.'s (2007) "Decision-making" factor. At a more substantive level the emphasis placed by our teachers on aspects such as empathy, self-regulation and social awareness led to the inclusion of a new dimension related to Social and Emotional Literacy as a potential sixth factor impacting school climate.

The use of our six-factor School Climate Analytical Framework (SCAF) in future research will serve to further validate the extended model in both qualitative and quantitative studies. One possibility is, for example, the design and validation of a tool that integrates the six factors and allows a factorial analysis aimed to find potential correlations among the various factors. At another level, the use of SCAF to further explore the relationships between school climate and SEL in different settings will contribute to a better understanding of the phenomenon considering the specificities of the different school contexts.

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Chapter 5

Norway

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Developing and Implementing a Cross-Cultural Digital Intervention on teachers‘ professional well-being in a Norwegian Context

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Abstract

Teaching is considered a stressful occupation, characterized by a high workload and lack of resources, which may result in burnout and turnover. In Norway, turnover rates among teachers are high, and focusing on actions to retain teachers in their jobs is therefore essential. School interventions have mainly focused on the students, whereas less attention has been given to the teachers. Thus, in the current chapter, we describe the development and implementation of a digital intervention aimed at increasing teachers' professional well-being in a Norwegian context, and what factors may have affected the quality of this implementation. First, we present the concept of professional well-being, and the development of the digital intervention using the theoretical framework of the Job-Demands Resources Model (JD-R) (Bakker & Demerouti, 2007). Second, we describe some core characteristics of implementation quality, specifically drawing on implementation quality frameworks. Third, we describe how the digital intervention was implemented in the Norwegian school context, and further, how factors at the school level and the individual level might have related to the quality of the implementation. Finally, we present a conclusion and some learning points related to future interventions aimed at teacher professional well-being in a Norwegian context.

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1 Introduction

Teachers' professional well-being in a Norwegian Context

The health and well-being of workers in Norway is a high priority among policymakers. The Working Environment Act § 1-1 states specifically that the work environment shall be health-promoting for all employees, which implies high job satisfaction, high engagement, and the prevention of work-related illness. The Act further states that: "*one shall secure a working environment that provides a basis for a healthy and meaningful working situation, which affords full safety from harmful physical and mental influences and that has a standard of welfare at all times consistent with the level of technological and social development of society."* Moreover, the Work Environment Act emphasizes that *"arrangements shall be made to enable the employee's professional and personal development through his/her work (..) and emphasis shall be placed on giving the employees the opportunity for self-determination, influence and professional responsibility."* Additionally, the Directorate of Education in Norway states the importance of *professional collaboration* among teachers in schools, to facilitate the development of both pupils and teachers the importance of good leadership to build relationships and trust in the organization is also emphasized. In summary, the Norwegian Working Environment Act underscores the importance of workers' well-being, while the Directorate of Education in Norway focuses on the professional well-being of teachers.

However, when looking at the teaching profession, some concerns indicate their health and well-being are under pressure. Research shows that teaching is one of the professions with the highest level of job stress (Stoeber & Rennert, 2008). Due to high stress at work, teachers have a higher risk of burnout compared to other professions (Babad, 2009) which is concerning, as we know burnout is related to several aspects of ill health (see for instance Salvagioni et al., 2017 for a meta-analyses). In addition to having detrimental effects on teachers' health and well-being, there is also solid evidence that a stressful work environment is related to employee turnover (for a meta-study see Rubenstein et al., 2018). Discipline problems are perceived by teachers as particularly stressful (for meta-study see Aloe et al., 2014), and in a recent study among Norwegian teachers, it was found that teachers who experienced discipline problems in the classroom reported stronger intentions to leave their job (Jensen, 2021). Moreover, Tiplic and colleagues (2015) found that 33% of the teachers who started teaching in 2006 left the profession within 5 years, implying that teacher turnover is a challenge in Norway. This is worrying, as teacher turnover has been found to influence the quality of student education and student achievement negatively (Ronfeldt et al., 2013). Conclusively, in light of the significance of work-related stressors as an antecedent of teacher well-being and turnover, interventions should address working with aspects of the psychosocial work environment to decrease teacher stress and increase their well-being.

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Thus, in cooperation with 14 partners including 4 ministries, 6 universities and 3 centres of educational practice from 8 European countries a digital intervention concerning teachers' professional well-being was developed and implemented in four schools in Norway.

2 Theoretical Framework

The Job Demands-Resources Model

In the development of the digital intervention of teachers' professional well-being, we drew upon the JD-R model (Bakker & Demerouti, 2007). The JD-R model is concerned with how the psychosocial aspects of the work environment relate to workers' health and well-being. The JD-R model highlights that work characteristics can be categorized into two main categories: Job demands and job resources (Demerouti et al., 2001). Job demands refer to physical, psychological, or organizational aspects of the job that require sustained physical and/or psychological effort and are thus associated with certain physiological and/or psychological costs" (Demerouti et al., 2001, p. 501). Job resources refer to "Those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs (c) stimulate personal growth, learning, and development" (Demerouti et al., 2001, p. 501). The JD-R model describes two main processes; the health-impairment process and the motivational process. The health impairment process is mainly concerned with how chronic job demands over time drain energy from the individual worker, which again may lead to burnout and health problems. On the contrary, the motivational process is the process where job resources play an intrinsic motivational role by contributing to employees' learning, growth, and development or an extrinsic motivational role by fulfilling the achievement of work goals (Bakker & Demerouti, 2007).

Job resources relate positively to work engagement which again may relate positively to other organizational outcomes such as job performance. In addition to the two main effects of job demand and job resources on individual and organizational outcomes, the JD-R model further proposes that job resources may function as a buffer on the associations between job demands, burnout and health outcomes, thereby reducing the negative effects of high job demands. Xanthopoulou and colleagues (2007) also expanded the JD-R model to include personal resources. Personal resources are aspects of the self that relate to the individual's resilience and refer to their perceptions of the ability to control and impact their environment successfully (Hobfoll et al., 2003). Xanthopoulou et al. (2007) found in their study that job resources mediated the association between job resources and work engagement/burnout.

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Implementation and Implementation Quality

The concept of implementation is described by (Durlak, 1998) as: "how well a proposed program or intervention is put into practice" (p. 5). However, studies show that implementations are rarely implemented as planned and that the variability in implementation may affect the expected outcomes (e. g., Wilson et al., 2003). Domitrovich et al's (2008) multi-level model for implementation quality gives a thorough overview of factors that may affect the quality of implementation (see Figure 1). In the centre of the figure are three central aspects referred to as core elements, delivery and standardization. These three elements are related to both the quality of the intervention and the system set up to support the intervention. The core elements of the intervention refer to the process of practices and features of the intervention that are related to an underlying theory. Negative adaptations, absence of core components or that core components are poorly delivered can according to Domitrovich's theory reduce the effect of the intervention (Domitrovich et al., 2008). Moreover, there may also be a culture dimension related to the quality of implementation. According to Hofstede's (2001) theory of five cultural dimensions, countries vary in power distance, individualism/collectivism, masculinity/femininity, uncertainty avoidance, and long-term short-term orientation, and findings have shown that these factors moderate perceptions of job demands and job resources (see Hofstede 2001 for a meta-analysis). Thus, culture may influence how well the intervention fits the teacher population in each respective country, and cultural adaptions may be beneficial. Moreover, a country's cultural dimensions may impact job characteristics and well-being/outcomes (Van Veldhoven et al., 2017), and influence an individual's response to stress (Hobfoll et al., 2018).

An example of the core elements of the *support system* can be pre-intervention training which gives participants the competence needed to apply the intervention (Fixsen et al., 2005). Standardization of the intervention model refers to the standardization of the intervention across sites and can for instance, include instruction manuals etc. (Domitrovich et al., 2008). Standardization of the support system is also essential to ensure equal support for participants taking part in the intervention, and generally, standardization has been found to relate to implementation quality (Payne et al., 2006). The final aspect referred to as delivery in Domitrovich's model, can be defined as *the frequency, duration, timing, and model of delivering the core components as well as the individuals actually responsible for implementing the intervention* (Domitrovich et al., 2008, p.5). Delivery of the support system is according to Domitrovich's model also an essential determinant for the quality of implementation.

To measure implementation quality of the intervention and the support systems it is necessary to include different compliance measures referred to as fidelity, dosage and quality of delivery (Domitrovich et al., 2008). Implementation fidelity

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is defined as "the degree to which teachers and other program providers implement programs as intended by the program developers (Dusenbury et al., 2003). Dosage refers to the amount of time the participants spend on the intervention (e. g., number of hours, number of lessons). Finally, the quality of delivery can be measured through engagement, sensitivity and responsiveness (Domitrovich, 2008). Durlak and DuPre (2008) concluded from their review of nearly 600 interventions, that there are eight aspects of implementation referred to as fidelity, dosage, participant responsiveness, quality of program delivery, reach, adherence and finally program differentiation – which refers to presence of the uniqueness of the program in the treatment condition (Durlak & DuPre, 2008). The five aspects of adherence, dosage, quality of program delivery, participant responsiveness and program differentiation are generally considered ways of measuring fidelity (Domitrovich & Greenberg, 2000; Lendrum & Humphrey, 2012). Additionally, there are several contextual factors which influence implementation, which is outlined in the multilevel quality implementation framework. (Domitrovich et al., 2008). These factors are organised into three levels: Macro level, school level and individual level. The macro level relates to community factors, including the educational system, government, and community entities. Policy and legislation are examples that may have an impact on the implementation. The school level relates to the school as an organizational entity – examples of relevant school-level factors that may impact the implementation are resources available to support the intervention, personnel expertise, administrative leadership, school climate and culture (Domitrovich et al., 2008). The individual level is concerned with psychological factors (e. g., enthusiasm, anxiety, stress, burnout, self-efficacy). It is believed that for instance burnout can have a negative impact on implementation quality, especially in situations where the intervention is perceived as an additional burden (Domitrovich et al., 2008). On the other hand, high self-efficacy has been shown to relate to a program implementation with better quality (Kallestad & Olweus, 2003).

Social Validity

For interventions to be successful it is also important to ensure social validity. Social validity stems from Wolf (1978), with a proposed framework consisting of three dimensions for assessing interventions: goals, procedures, and effects (Leko, 2014). Social validity may also be closely related to teacher buy-in. Buy-in refers to teachers' beliefs and attitudes that the intervention they are taking part in is useful, which further has been found to be associated with how involved they are in the intervention (Datnow & Castellano, 2000). The concept of buy-in relates closely to the dimension which Domitrovich et al., (2008) refers to as the individual level in their quality implementation framework, and engagement has been acknowledged as a critical factor in research on interventions (Jensen & Solheim, 2020).

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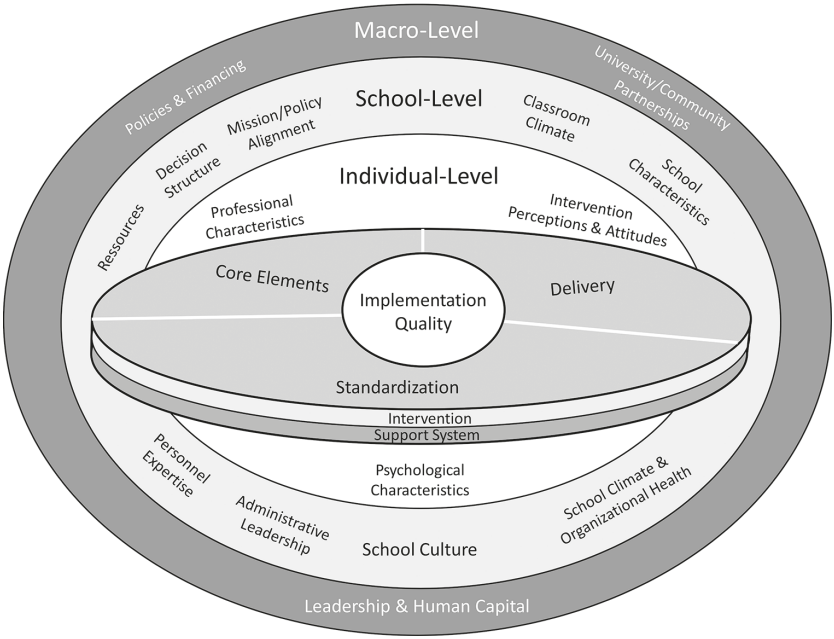

Figure 1: Factors that can Affect Implementation Quality: A Multi-Level Model (Domitrovich et al., 2008, p. 31; self-drawn)

3 Description of the Intervention and how it was Implemented

The Core Elements of the Intervention

The JD-R model reflects the core elements for the development of the intervention, as we applied this model as our underlying theory. The reason for applying the JD-R model as a theoretical framework for developing our intervention was that this model is a relatively broad model when it comes to defining job demands and job resources and is adaptable when it comes to which demands and resources are relevant for teachers. Based on the two processes of the model, referred to as the health impairment process and the motivational process, the focus of the intervention was thus to increase teachers' job resources and reduce their demands, to increase teachers' job engagement as a dimension of well-being, and reduce burnout and negative health outcomes. The development of the content of the intervention was a thorough process that took place throughout 2021 and 2022 through discussions with the participants in the partner countries. In cooperation with a Spanish company who was specialized in delivering game-based learning,

doi.org/10.35468/6091-05

the digital game was developed, and translated into Norwegian. Game-based learning is an active learning technique where the participant has an active part in the game. The game consisted of 12 modules which were related to professional well-being in a school context, where the participant played an active role in solving tasks etc. (see Table 1 for an overview and description of the different topics). In addition to the game, we also developed a workbook, that consisted of 12 chapters, where the 12 chapters were aligned with the modules in the game. Each chapter in the workbook mirrored a scenario in the online game to play and resolve challenges to get to the next level. The workbook was intended to reinforce the same topics as in the online game but allow for more in-depth individual reflections and discussions in groups with colleagues. Each chapter in the workbook contained a short introduction to the week's topic, questions for reflections and/or discussions, and exercises to complete by writing in the book.

Table 1: Content of the workbook is based on: Diener & Seligman, (2002); Gurung et al., (1997); Ryff & Keyes (1995); Lishner et al., (2016); McCallum & Price, (2015), Schleicher (2018), and Wethington & Kessler (1986).

Module	Topic	Goals, Activities/Independent Practice
1	Professional well-being	Questions for reflection regarding being a teacher, demands, and resources. Evaluate and reflect on what you can impact and what is outside your control at work. What aspects of work do you like and why? Different aspects of well-being
2	Goal setting	Identifying strengths and the applications of these Setting SMART goals Identifying professional developmental goals Overview of the rest of the intervention
3	Thinking patterns	Connections among emotions, thoughts, and actions Which factors may impede your social interactions? Assessment of emotional drivers ABC-model Inner compass: thoughts and intuition
4	Support system	Explore our support system. Uncover what factors contribute to a healthy and sound work environment. Reflections on colleagues and leadership at the school How is the support system working for you now? An assessment

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5	Time management	Strategies and tips for time management Implement some strategies for time management. Successful change processes Eisenhower-model Pomodoro-technique
6	Classroom leadership and engaging teaching	Reflections on the importance of classroom leadership strategies Knowledge of good strategies for classroom leadership Implementing new strategies for classroom leadership
7	Prioritizations	Recognize reactions and triggers to stress. Self-assessment and awareness about own emotions Reflection on stress mastery Building resilience
8	Stress and well-being	How to process stress that is perceived as challenging Tackling emotionally stressful situations Self-awareness about reactions, emotions, and how they affect bodily reactions like breathing, etc. Breathing and mindfulness practices
9	Empathy and communication	Employing cognitive and affective empathy and sympathy and being open-minded to alternative perspectives in the meeting with other people Reflections on personal values Appreciation of diversity Difference between thoughts and feelings and how they can impact each other
10	Empathy and respect	Continuous work with empathy, respect for oneself and others Increased awareness of own attitudes towards others (e.g., colleagues, leaders, students, parents) in conjunction with oneself Development of communication skills and building relationships Analyze, evaluate, and reflect on situations at work
11	Leadership	What are the different aspects of leadership? Reflections on own and others' leadership types. Formal and informal leaders
12	Professional development and summary of the course	Visualization of one task or area where you want to improve the most? Reflection on what you want to change. Self-awareness of the preferred method of learning What is essential, and how do you want to integrate this learning?

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Democratic Principles for Organizational Change in the Norwegian Context

A successful intervention requires a successful change process. In Norwegian work-life, there is a strong tradition for democratic dialogue and collective processes when conducting changes, which can be traced back to the early research conducted by the Norwegian researcher and psychologist Einar Thorsrud. In 1962 Thorsrud was a motive power for the Industrial Democracy Project, which emerged as a result of the cooperation between the Trade Unions and Employers' Organization in Norway. Throughout the 1960s Thorsrud carried out several field experiments in different business industries to improve the conditions for employees to participate when it came to factors concerning their work situation. The hypotheses behind the project were related to that there were several psychological requirements related to job design, including decision-making on the job. An essential conclusion from the Democracy Projects concerning changes was that: "Changes are done by the people in their work organization, and not for people, that organisations and institutions are changed from the inside and not from the outside" (Thorsrud, 1977, p. 411). This statement highlights the importance of employee participation when conducting changes to achieve successful results, a tradition that stands strong in Norwegian organisations. It is also worth mentioning that Thorsrud's findings had direct implications for the development of the Norwegian Work Environment Act (1977), mentioned previously, where it is also stated that all employees have the right to participation and decision-making in organizational changes at their own workplace. In order to achieve democracy, dialogue and open discourses, are essential mechanisms. Gustavsen and Engelstad, (1986) state that when employees get the opportunity to discuss openly and are given equal rights to contribute, the most optimal solutions will appear. Thus, when developing and implementing the professional well-being intervention in the Norwegian context, we had to emphasise the principles of participation and involvement from management and employees, as these are important principles in the Norwegian work-life.

The Project Team

The project team consisted of three academic employees from the University of Stavanger (two professors and one PhD) in addition to one external who had the role of a school development leader in four municipalities in the West of Norway. The main role of the school development leader is to develop, manage and coordinate knowledge-based processes in the different collaboration networks, in addition to cooperating with politicians, the education sector, and the local University. Having a school development leader in our project team was considered essential as this person had close contact with principals, teachers, union officials, and safety deputies at the schools in the different municipalities. During spring 2021 we reached out to the school owner of several municipalities in the West of Norway,

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where we asked for permission to contact relevant schools for recruitment to the project – and the school owner was positive to this. During June 2021 we contacted several schools by e-mail, where we asked for a meeting with the school's management and union representative to present the professional well-being intervention. In cases where the school's management and union representative found the project interesting, we were invited to present the project to the whole staff. Initially, we recruited 5 intervention schools for the project. However, later in the project one of the schools decided to withdraw, leaving us with 4 schools for the final data collection. 2 of 3 of the schools were relatively large primary schools (approximately 50 teachers employed), whereas the third primary school was relatively small (approximately 15 teachers and 7 teacher associates). The smallest school was at the comprehensive level (11 teachers and 3 teacher associates). With also recruited three control schools for the project.

Participation and Dialogue Approach

As noted previously, participation and collective decision making is an important value in Norwegian working life and is especially important for interventions to be successful. Thus, after getting the participating schools on board, we arranged meetings taking a dialogue approach at the respective schools. The dialogue meetings were held from the end of November 2021 until the end of March 2022 at the respective schools. We invited school management, representatives from the teachers' union, teachers, and representatives from other professional groups such as assistants, health nurses, special education teachers, therapists, and social workers. The school owner from the municipality was also invited but did not attend the meetings. The aim of the workshop was for participants to discuss the theme of professional well-being and create a common understanding of the topic of professional well-being. The project team also developed a teaser movie with information about the project and an example of the interactive game which was going to be developed.

During January 2022 we invited the chef municipal education officer and his management team to a presentation of the planned project and the overall contents of the intervention – and also what was required from the schools to participate. By involving top management in the municipalities, we acknowledged that factors at the macro level are important for the successfulness of the intervention – and in line with Domitrovich's theory, we considered that top management could function as an important support system both in the recruitment of schools and throughout the intervention period.

In addition to the dialogue meetings, we also involved a few teachers from each of the schools during the development of the intervention so they could give their feedback on the content, and we could adjust the content accordingly. The content they reviewed was mainly drafts of the workbook, as the game was not ready

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at this point to be reviewed. Additionally, we conducted focus group interviews with the same group of teachers to get insight into how they perceived aspects of job demands and job resources in their workplace. The interviews were then recorded and transcribed. In-depth information on these work aspects was considered useful before developing the quantitative questionnaire.

Establishing Support Systems and Procedures

For an intervention to be implemented as planned, establishing support systems at the school level is essential, where administrative leadership is an important factor (Domitrovich, et al., 2008). Thus, in September 2022 we chose to gather the principals from the intervention schools for a start-up seminar where we rehearsed how the intervention was to be carried out, and where we also discussed how they best could support the teachers during the intervention period. During the seminar, the principals reviewed the first six modules of the workbook and gave input both to the content and the layout. Moreover, they discussed how best to carry out the intervention in their own school. It was also informed who the teachers could contact if they needed assistance when playing the game.

Before the start of the intervention, a pre-test questionnaire was distributed to 250 potential respondents, including both intervention schools and control schools. The questionnaire was distributed at the end of November 2022, and several reminders were sent out to the participants during December 2022. At Time 1, 161 responded to the questionnaire, implying a response reate of 64.4%., implying a response rate of 64.4%. However, two of the respondents were deleted from the data set, as they were milieu therapists and not teachers, leaving us with a total sample of 159, whom 73.6% were women. The first part of the game was launched to the intervention schools the 27th of November 2022. In January 2023 we arranged a follow-up seminar with the principals at each of the schools where the first part of the intervention was evaluated. In addition, we conducted a question-and-answer session to reassure the principals of their further work and asked them to review the next 6 modules of the workbook (see Table1). General feedback from all the principals was that many of the teachers struggled to understand the game, that it was difficult to understand the intention of the game, and that many of the teachers were not motivated to play.

Consequently, after the follow-up meeting with the principals, the school development leader in the project conducted physical follow-up meetings with the staff – and demonstrated how the game should be played. Moreover, it was explained that the game was mainly an introduction whereas they were urged to use the workbook to reflect and work in groups on the various topics. As a result, an alternative approach was taken, where the playing of the game was more team organized – and as an example one teacher played the game, and the other teachers were observers.

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Although several of the teachers reported having trouble with playing the game, the feedback on the workbook was generally positive.

The second part of the intervention was launched in March 2023, and the intervention was closed at the end of May 2023. The post-test questionnaire was then distributed to respondents in control schools and intervention schools. The intervention group consisted of 104 employees at Time 1. However, only 51 respondents responded to the questionnaire at Time 2, implying a drop-out rate of 50.1%. With regards to the control schools 50 teachers had initially responded to the questionnaire at Time 1. However, at Time 2 this number had been reduced to 23, implying a drop-out rate of 54%.

Experienced Hindrances during the Development of the Intervention

Considering the development of the intervention was a cooperation between 8 European countries we experienced some challenges regarding cross-cultural differences when developing the content of the intervention. As mentioned previously, Norwegian work life has been strongly influenced by democratic principles (e. g., Thorsrud, 1977), and principles for a healthy working environment, and workers' professional well-being is strongly regulated by law through the Working Environment Act. This implies that when working with improvements in employee well-being in the Norwegian context, it is most relevant to work with actions at an organizational level (e. g. leader support, organization of work tasks etc). However, when developing the intervention, it became clear that several of the other participating countries had a more individual approach to working with teachers' professional well-being (e. g. mindfulness, breathing techniques to reduce stress etc), which are approaches that are less accepted within the Norwegian work context. This is related to the Working Environment Act which states that it is mainly the organizations' and management's responsibility to secure a healthy working environment. Therefore, coming to an agreement on an intervention which was fit for all countries considering the different cultures was challenging. Throughout the process, it also became clear that schools in each of the countries were organized very differently.

Relevant Factors Affecting the Implementation Quality

As depicted in the model by Domitrovich and colleagues (2008) several factors can impact the intended implementation of an intervention. As shown in Figure 1 the macro, -school, - and individual levels all contain several factors, but we will highlight a few that were particularly pertinent to implementing the intervention in Norway. At the school level, we experienced that *administrative leadership* was an especially important factor for participants' engagement at the different schools. When teachers were given designated time to play the online game and discuss reflections in the workbook, it was experienced as more positive than when

doi.org/10.35468/6091-05

participation required using their own time. Additionally, the study's potential importance seemed to be understood and communicated differently. One limitation might have been that we did not make explicit cultural adaptations to tailor the content in the intervention to Norwegian culture or context. If we had conducted countrywide adaptations, it could have risked losing the potential critical components in the intervention. Moreover, we did not have time and resources in our project to pilot possible local adaptations. However, as mentioned previously variations in countries' cultures may impact well-being/outcomes (Van Veldhoven et al., 2017), and influence an individual's response to stress *(*Hobfoll et al., 2018. Moreover, different cultures vary in culture dimensions which again has significance for experiences related to job demands and job resources (Hofstede 2001). Although all the participating countries in the study were European, there are still differences in school power distance, administrative leadership styles, teamwork and meeting structures among the teachers, office space to support big groups, gender equality, perceived stressors, etc. These differences may have impacted how the intervention was carried out in each country, the source for various local adaptations, and participants' understanding and varying needs for the content of the intervention. For instance, as mentioned before the Norwegian worklife and professional well-being of workers is strongly based on participation, democracy and collective decision-making. However, the digital intervention was to a great degree individual-oriented – which might have decreased the social validity in the Norwegian context.

Variations in collaboration at the s*chool culture* level could have influenced how much help and support the teachers received. This might be an important aspect, as several teachers reported that it was difficult to understand the digital game. Another relevant contextual factor was that the delivery of the intervention was delayed. The game was not ready until November 2022. Consequently, many schools decided to postpone the startup of the intervention to January 2023 because of Christmas. This resulted in a long time between the start-up meetings held by the project teams at each school and the intervention, which may have influenced teachers' buy-in and involvement (Datnow & Castellano, 2000).

Finally, on an individual level, we experienced that *intervention perceptions, attitudes, and psychological characteristics* were factors that could have influenced the quality of the implementation. In short, the level of social validity may have varied among the participants. As noted previously, teaching is a stressful occupation (Stoeber & Rennert, 2008), and asking the teachers to use their work time on playing the game may be perceived as an additional job demand, which might increase the risk of burnout (Bakker & Demerouti, 2007), leading to adverse effects on implementation quality (Domitrovich, 2008). As referred to above, several of the teachers experienced technical issues with the game and reported back that

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parts of it were difficult to understand or did not feel that the content was relevant. Teachers' previous experience with digital games might also have affected how they perceived the intervention. However, establishing better support systems at the intervention schools might have made the playing of the game easier. According to Domitrovich and colleagues (2008), establishing standardized support systems for the intervention is important regarding the quality of implementation (Domitrovich et al., 2008). Thus, a limitation of the intervention was that there was no trained coach or facilitator at the schools during the meetings.

4 Conclusion

The current chapter aims to describe the development and implementation of a cross-cultural digital intervention aimed at increasing teachers' professional well-being in a Norwegian context and highlight what factors may have affected the quality of the implementation and in our experience developing an intervention in cooperation between 8 countries had several challenges which might have affected the quality of the intervention for Norwegian teachers – as it was not fully adapted to the Norwegian context. Due to the Norwegian Working Environment Act and the long traditions for democracy in working life, schools in Norway are in a different position compared to other European countries. This implies that working to improve teachers' professional well-being is not a new era for Norwegian teachers. Thus, an intervention on professional well-being in a Norwegian context perhaps requires a higher standard compared to other countries where schools and teachers are less familiar with working with such topics. Conclusively, it is important to consider that when developing intervention content through cross-cultural collaborations, adaptations to the country context may be more challenging.

Further, several factors could have influenced the implementation of the intervention. These were related to variations in administrative support, how well teachers collaborated and supported each other when working with the intervention, and whether teachers perceived the intervention as an additional job demand. Digital interventions are becoming more and more popular due to cost-effectiveness, and it is possible to reach a higher number of participants. However, from our experience with developing and implementing digital interventions, it is important to establish good support systems and ensure the digital competence of the participants to make such interventions successful.

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Chapter 6
Lithuania

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Professional Burnout and its Relation to Self-Efficacy and Perceived Stress: The Case of Lithuanian Teachers

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Abstract

In modern society, problems related to a teacher's personality, mental and physical health, and emotions and competencies, are becoming more and more relevant. In Lithuania, compared with other European countries, teachers experience specific difficulties at work: they have to work in the conditions of constant reforms and changes, and face growing competition due to the decrease in students and schools. The majority of the studies on burnout, self-efficacy and perceived stress attempted to find the relationship between personal or organizational variables and burnout. Hence, the relationship between teachers' professional burnout, self-efficacy and perceived stress in the school environment is an area that needs to be actively researched in Lithuania. The research aim of this study was to reveal and characterize teacher burnout, self-efficacy and perceived stress in the Lithuanian school context. The quantitative research design with questioning survey was chosen for the study. Sample size consisted of 427 Lithuanian teachers. Research results revealed the highest scores for exhaustion and the lowest for cynicism; at a time when the teacher experiences professional burnout, cynicism is observed as the weakest characteristic; no significant differences were found according to educational level or work experience; significant differences were identified according to age, for exhaustion and overall burnout level among teachers; most of the teachers in Lithuanian sample perceive a moderate stress level in the school environment; overall burnout has a significant correlation with self-efficacy and stress among Lithuanian teachers.

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1 Introduction

In today's fast-paced world, the teacher's problems related to psychological, mental and social health, and the teacher's personal aspects, become one of the most acute problems that are inseparable from the teacher's professionalism. Therefore, it is natural that scientific research is becoming more and more relevant, aiming to reveal and identify psychological problems related to one of the main participants in the educational process – the teacher (Stočkus, 2014). Who is a teacher and what is his or her mission these days? The question is philosophical, but it is understood that the role of the teacher in the educational process is significant. So, it is extremely important to study the mental health of the teacher, his or her professional burnout at work, and the coherence of the teacher's personality in general (Želgienė, 2015).

In Lithuania, compared with other European countries, teachers experience specific difficulties at work: they have to work in conditions of constant reform and change, and face growing competition due to the decrease in students and schools. The social situation leads to the fact that there is an increasing amount of work with students from social risk families, children left behind by emigrant parents, and children from families experiencing economic deprivation. These students need more attention and time. Teachers of preschool educational institutions and general education schools are faced with the social diversity of pupils. In addition to objective professional challenges, such as a high workload, the number of students in classes or kindergarten groups, long working hours, low salaries, there are emotional difficulties, lack of autonomy at work, difficult relationships with colleagues, problems with student behavior, and a growing level of student violence, manifested also through bullying in schools. Continuous intensive communication leads to "oversaturation" of social contacts. All these reasons cause professional burnout syndrome, and increase teachers' sense of insecurity and job dissatisfaction (Abromaitienė, 2014).

Teacher burnout is a multidimensional and multidisciplinary concept, which is based on emotional exhaustion, referring to the depletion of the teacher's emotional sources and enthusiasm for teaching; depersonalization, denoting the teacher's detachment from and development of negative attitudes towards learners; reduced sense of personal accomplishment, signaling the teacher's perceptions of under-accomplishment and ineffectiveness in teaching (Maslach & Jackson, 1981). Environmental qualities (work overload, types of student behavior, role conflict, type of student), social support, parent/community relationships, and characteristics of the institution could lead to a negative/positive classroom climate, and affect teachers' exhaustion at school (Grayson & Alvarez, 2008; Rey et al., 2012). Maslach and Leiter (1999) highlight the simultaneous effect of teacher-student interaction, teachers' personal qualities, school environment, and the

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larger social context on teacher burnout. Teacher burnout may be the result of an interaction between personal (gender, age, marital status, years in pedagogical profession, locus of control, self-esteem, self-efficacy) and organizational variables (access to facilities, social support, working conditions, school structure) (Sleegers, 1999). Teachers who cannot build organizational interpersonal relations, and do not receive professional support within the school, feel professionally exhausted (Friedman, 2003).

Teacher professional burnout is related to professional self-efficacy. Teacher professional self-efficacy is a predictor of their professional burnout (Ventura et al., 2015). Self-efficacy is considered a stable personal characteristic related to self-regulation mechanisms (Judge et al., 1997, 2007, 2012; Bono, 2001). Self-efficacy implies self-confidence in generating effective action plans, handle difficulties, managing emotions, stress, and anxiety, and exercising control (Bandura, 2012). From this point of view, professional self-efficacy is likely to affect enriched perceptions of teacher job characteristics. Self-efficacy affects both workplace and psycho-social wellbeing of teachers (Bargsted et al., 2019), which includes job satisfaction, performance and work conditions. Self-efficacy plays a mediating role in the relationship between work design and work outcomes (Choi, 2016).

Teacher professional burnout is closely related to teacher perceived stress, which includes: i) emotional exhaustion, meaning being emotionally overextended and exhausted by one's work; ii) depersonalization, characterized by exhibiting negative, cynical attitudes toward others and treating people as objects; iii) experiencing negative assessment of the performance of teachers; iv) teachers being doubtful about making a difference in their job, and losing awareness of their personal competence (Draper et al., 2004; Zautra et al., 2002).

The majority of the studies on burnout, self-efficacy and perceived stress attempted to find the relationship between personal or organizational variables and burnout. So, the relationship between teachers' professional burnout, self-efficacy and perceived stress in the school environment seems to be a relatively underresearched area. In an attempt to contribute to the current literature by filling these gaps and providing perspectives from Lithuania, we investigated teacher professional burnout and its relationship with teachers' self-efficacy and stress in the context of Lithuanian schools.

The research aim was to reveal and characterize teacher burnout, self-efficacy and perceived stress in the Lithuanian school context.

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2 Discourse of studies of teacher burnout in the Lithuanian context

Today, our society and school are changing a lot. We are looking for the most effective means to implement the ever-accelerating changes in the education system. The education system and society require of a teacher an independent personality that reveals itself creatively already at school. It is natural that new and higher demands are placed on teachers. Special attention is paid to the teacher's profession and personality (Kalvaitis, 2016). The teacher is distinguished from the whole; specific expectations, high standards and requirements are placed on him or her. In this way, society not only expresses respect for the educator, but above all assigns responsibility. Trakšelys and Martišauskinė (2013) state that in order to perform the functions assigned by society, teachers must change as the educational environment itself changes. At the beginning of the 21st century, the very purpose of education has also changed – it has become not the transfer or acquisition of knowledge, but the development of competences. The teacher's work process is often analyzed, and the results evaluated. The work of a teacher requires many intellectual and physical resources; society perceives the teacher as the guide to the future, on whom the quality of the growing generation depends. Martišauskienė (2016) states that the most important uniqueness of education work is that the teacher is an essential instrument who supports the entire educational process with the power of his or her spirit, and fuels it with spiritual energy. All this is much more than just the knowledge and skills of a teacher, which are needed by people of all professions. Many teachers intuitively rely on their spiritual potential, but a professional teacher should understand the totality of these processes.

As the rhythm of life and work intensifies, the study of the concept of professional burnout becomes an increasingly relevant problem in our country (Kavaliauskienė & Balčiūnaitė, 2014). It is generally accepted that the burnout syndrome is one of the biggest challenges in the modern professional work environment, and the concept of burnout at work is of increasing interest to the academic community in Lithuania. Studies (Kavaliauskienė & Balčiūnaitė, 2014; Martinkienė et al., 2016; Merkys & Bubelienė, 2013; Stočkus, 2014) aimed to identify the signs and causes of this phenomenon, and to distinguish risk and protective factors. In Lithuania, research is conducted on the topic of burnout at work, but most of the research in this field (Kavaliauskienė & Balčiūnaitė; Pacevičius, 2006; Stočkus, 2014) analyzed connections of burnout with the teacher's age and gender. However, attention is not paid to the characteristics of the teacher's personality or personality traits: such as a person's tendency to experience negative feelings, openness to new experiences, or impulse control; their perfectionism, as in how much a person makes adequate demands on him or herself at work, how strongly he or she concentrates on failures, or how he or she perceives the expectations of colleagues, students and their parents in relation to him or herself.

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The phenomena of burnout, self-efficacy and stress are not new, but research on teacher professional burnout, self-efficacy and stress, and their interrelationships in Lithuania, is still relatively recent. Professional burnout is a complex phenomenon that has received a lot of attention from researchers in various countries over the last decade. However, this phenomenon is little known in Lithuania, and only a few can tell what burnout syndrome is. In Lithuania, burnout syndrome is particularly common among teachers (Račkauskaitė, 2010). Professional burnout can be defined as a complex process consisting of three components: emotional exhaustion (manifested by overwork, physical and mental exhaustion, inability to meet the demands); depersonalization (manifested by a formal attitude to the work performed, duties, indifferent or negative reaction to the service contingent) and reduced effectiveness (reflecting a feeling of incompetence, lack of work achievements and efficiency). It is a process that develops over a long period of time, manifests itself individually, is of varying intensity and is characterized by both mental and physical symptoms (Bulotaitė & Lepeškienė, 2006). Teachers, unlike representatives of other professions, are more characterized by early-developing professional burnout syndrome. Being responsible for children's education and well-being often gives job satisfaction, but it is not uncommon for educators to feel physically and emotionally drained. People whose profession requires taking care of others use up their positive emotional resources over a period of time, and they become unable to resist stress. If such a state continues for a long time, complete exhaustion of physical and mental strength is possible, and such a state affects a person's motivation, attitude and behavior (Račkauskaitė, 2010).

The connections between the teaching profession and higher stress were recognized long before the professional burnout syndrome was described in scientific studies (Merkys & Bubelienė, 2013). The authors claim that the understanding of the complexity of the teacher's profession is traditionally reflected in legal acts regulating the professional activity of the pedagogue, labor relations, and workload. It is precisely because of the difficulty of this profession that in many countries there are extended vacations for teachers, early retirement, formally shortened working hours, and grants from the state or regional administration aimed at improving the living conditions of teachers. In different countries, these preferential conditions differ in one way or another, but various attempts to make the work of a teacher easier are a cross-culturally universal phenomenon. These benefits aim to increase the attractiveness of the teaching profession in the labor market, and thus at least compensate the teacher for the difficult and psycho-emotionally exhausting work.

Satisfaction or dissatisfaction with one's choice of profession indicates a subjective evaluation of this experience, which can be linked to further professional plans. Satisfaction with one's chosen occupation is said to be associated with future career decisions (Pociūtė, 2010). The perception of teachers' individual compatibility

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with the profession takes place through the expression of personality traits significant to teachers, which they use to describe suitability for professional activity. According to the research, the openness of the teacher to the world is extremely important – teachers should be inclined to know themselves and to analyze their personality traits (Šedžiuvinė, 2005).

Teachers' professional burnout is associated with a significant decrease in efficiency, productivity and detachment from work and profession, and not least with a sense of loss of control and self-control at work. The hypothesis tested in the study (male teachers feel more stressed due to work problems than female teachers) was not confirmed – both male and female teachers feel equally stressed due to work problems (Gedvilienė & Didžulienė, 2020).

In the scientific literature, it is increasingly emphasized that burnout is not caused by stress in general, but by stress arising from long-term and intense communication at work (Martinkienė et al., 2016). It also refers to risk groups, which include people with certain characteristics. First of all, these are people who experience a constant internal conflict because of their work. In many cases, these internal conflicts arise for people who experience contradictions between work and family, or who constantly have to prove their competence and professionalism at work. The second risk group includes people who have experienced constant fear of job loss. The third group includes people who enter an unusual, new work environment where high demands and expectations are placed on them, and people are expected to show high efficiency and quick results (Pacevičius, 2006).

In this context, we posed the following research questions:

- Q 1. What are the differences in the characteristics of professional burnout experienced among teachers by educational level, work experience, and age?
- Q 2. How does teacher self-efficacy occur, and what are its differences according to the teacher's educational level, work experience, age and gender?
- Q 3. What are the characteristics of the perceived stress of a teacher, and what are the differences between perceived stress according to the teacher's educational level, years of work experience, age and gender?
- Q 4. How are the relationships between teachers' professional burnout, self-efficacy and perceived stress characterized?

3 Methodology

Research design

Quantitative research design was used for this study. Quantitative research design relates to the design of a research project which uses quantitative research methods. Quantitative research design is aimed at discovering how many people think, act or feel in a specific way. Quantitative projects involve large sample sizes, concentrating on the quantity of responses. The standard format in quantitative research

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design is for each respondent to be asked the same questions, which ensures that the entire data sample can be analyzed fairly (Apuke, 2017). Quantitative research design tends to favor closed-ended questions. Providing respondents with a set list of answers, they will not normally be able to give lengthy open-ended responses. This design ensures that the process of quantitative research is far more efficient than it would be if qualitative-style open ended questions were employed. It is more efficient because it is then not necessary to carry out the time-consuming process of coding vast quantities of open-ended responses (Verhoef & Casebeer, 1997).

Quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations (Bhandari, 2023). The purpose of quantitative research is to attain greater knowledge and understanding of the social world. Researchers use quantitative methods to observe situations or events that affect people. Quantitative research produces objective data that can be clearly communicated through statistics and numbers. We do this in a systematic scientific way so the studies can be replicated by someone else (Burrell & Gross, 2017).

Sample

In the study, the random sampling method was applied. Random sampling is a part of the sampling technique in which each sample has an equal probability of being chosen. A sample chosen randomly is meant to be an unbiased representation of the total teacher population (Nikoloploulou, 2023).

Sample size consisted of 427 Lithuanian teachers. The sample size was calculated according to the general recommendations of Nqrdi (2003), Neuman (2007) and Suskie (1996): thirty respondents are the minimum sample size. The rule of thumb is based on the idea that 30 data points should provide enough information to make a statistically sound conclusion about a population. This is known as the Law of Large Numbers, which states that the results become more accurate as the sample size increases.

According to the Ministry of Education, Science and Sports of the Republic of Lithuania in 2021 data, the professional community of Lithuanian teachers consists of about 27,664 teachers. 427 teachers participated in the survey, i.e., the research sample represents 1.54 percent from the size of the professional population of teachers in Lithuania. This means that the minimum sample size is exceeded by 14.23 times. However, the sample size shows that the obtained results cannot be generalized to the entire population of Lithuanian teachers, so the answers should be evaluated as assumptions for existing trends.

The main part of the sample by gender is women (90.2%), and 3.8% research participants do not indicate their biological sex, marking "other". There are similar proportions in the sample of respondents according to the level of education:

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49.6 percent have obtained a university bachelor's degree; 41.0% of a sample have obtained a master's qualification degree. By age, the second part of the sample consisted of teachers who are 30–44 years old (32.6%) and 45–54 years old (34.9%). This means that the sample size consists of teachers of active professional age. The respondents' work experience ranges widely – from one year to more than twenty-five years. The majority of respondents were teachers who have more than twenty-five years of teaching experience (37.5%) (see Table 1).

Table 1: Socio-demographic characteristics of the sample

	Number of respondents	Percentage
Gender		
Male	26	6.1
Female	385	90.2
Other	16	3.8
Educational level		
BA (non-university)	22	5.2
BA (university)	212	49.6
Master's	175	41.0
PhD	6	1.4
Other	12	2.7
Age		
21–29 years	31	7.3
30–44 years	139	32.6
45–54 years	149	34.9
55–64 years	90	21.1
65 years and more	11	2.6
Not identified	7	1.6
Work experience		
Up to 1 year	9	2.1
1–5 years	59	13.8
6–10 years	45	10.5
11–15 years	41	9.6
16–20 years	56	13.1
21–25 years	57	13.3
More than 25 years	160	37.5

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Data collection and tool

Data were collected from November 2022 to March 2023, through survey by using questionnaire on teachers' professional wellbeing, which was originally developed by ©Teaching To Be[1] project team. The only pre-test data in the whole sample of teachers were analyzed in this study.
The tool consisted of two dimensions:

I. Organizational dimension with the following indicators – organizational belonging, teacher autonomy, recognition/appraisal, collaborative work, cooperating with colleagues, shared leadership, institutional relationship, conflict resolution, organizational climate, support from leader, student motivation, instruction, classroom management, discipline, and possibility to access professional training.

II. Individual dimension, with the following indicators: self-efficacy, professional growth, teacher burnout, job satisfaction, meaning of work, professional identity, job crafting, peer recognition, beliefs and values, self-concept, self-regulation, autonomy, positive emotion, resilience, self-awareness, frequency of negative and positive experiences, satisfaction with life, social competencies, quality of relationships, work-family conflict, critical thinking, self-assessment, responsible decision-making, and growth mindset.
In this manuscript, the results from researching three indicators: teacher professional burnout (job burnout); self-efficacy (a teacher's professional self-efficacy); and perceived stress (teacher stress) are presented:

Teacher professional burnout. Job burnout is a prolonged response to chronic emotional and interpersonal stressors on the job (Maslach, 2003) and is the result of prolonged distress involving physical, emotional and mental fatigue. Teachers' professional burnout means dissatisfaction with certain needs – increasing frustration with mental and physical symptoms that reduce self-esteem (Vollmer, 1998) and long-term human response to constant emotional and interpersonal stress at work (Maslach, 2003). Burnout develops over a long period of time through the periodic accumulation of negative emotions, and it is important to recognize it in time. The Bergen Burnout Inventory (BBI) (Salmela-Aro et al., 2011; Salmela-Aro et al., 2011; Feld et al., 2014) was a part of the research tool in the study and it comprised three core dimensions: exhaustion at work; cynicism toward the meaning of work; and sense of inadequacy at work. Exhaustion refers to the draining of emotional energy and feelings of chronic fatigue; cynicism describes having a distant and negative attitude toward one's job, and reduced professional efficacy refers to the belief that one is no longer effective in fulfilling one's job responsibilities (Maslach et al., 1996; Maslach & Leiter, 1997). For every dimension was used 6-point rating scale ranging from *strongly disagree* (1) to *strongly agree* (6).

1 Erasmus+ Project "Teaching To Be: supporting teachers' professional growth and well-being in the field of social and emotional learning", No. 626155-EPP-1-2020-2-LT-EPPKA3-PI-POLICY

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Self-efficacy. Teachers' professional self-efficacy is defined as a judgment of one's own capabilities to bring about desired outcomes of student engagement and learning, even when students are difficult or unmotivated (Tschannen-Moran & Woolfolk Hoy, 2001). The tool for teachers' self-efficacy measurement was based on Skaalvik & Skaalvik (2007) *Norwegian Teacher Self-Efficacy Scale (NTSES)* which includes the following sub-scales: instruction/teaching, adapting instruction/teaching to individual needs, motivating students, maintaining discipline, and cooperating with colleagues and parents. Responses were given on a 7-point scale from *not certain at all* (1) to *absolutely certain* (7).

Perceived stress. Teacher stress can be defined as the physical, emotional, and mental strain experienced due to the demands and challenges associated with their profession. It is the result of various factors that teachers encounter in their roles, both inside and outside the classroom. Teacher stress can manifest in different ways and may vary in intensity among individuals. *The Perceived Stress Scale (PSS)* originally developed in 1983 (Cohen et al., 1983, 1988), remains a possibility to identify how different situations affect feelings and perceived stress. The questions in this scale ask about one's feelings and thoughts during the last month. For each question, here are provided the following alternatives to choose: 0 – *never,* 1 – *almost never,* 2 – *sometimes*, 3 – *fairly often,* 4 –*very often*. There were provided two sub-scales within the PSS: i) Perceived helplessness (items 1, 2, 3, 6, 9, 10) – measuring an individual's feelings of a lack of control over their circumstances or their own emotions or reactions; ii) Lack of self-efficacy (items 4, 5, 7, 8) – measuring an individual's perceived inability to handle problems. Scores on the PSS range from 0 to 40, with higher scores indicating higher perceived stress. Scores ranging from 0–13 would be considered low stress. Scores ranging from 14–26 would be considered moderate stress. Scores ranging from 27–40 would be considered high perceived stress.

The internal consistency of every dimension with particular scales and sub-scales were calculated via Cronbach's alpha. > 0.7 was used as a benchmark value for Cronbach's alpha. At this level and higher, the items are sufficiently consistent to indicate the measure is reliable (Frost, 2023). Typically, values near 0.7 are minimally acceptable but not ideal. Internal consistency calculations of the tool's three dimensions (scales) from the Lithuanian sample demonstrated acceptable internal consistency (> 0.7 for burnout, > 0.8 for self-efficacy and > 0.7 for stress).

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Table 2: Reliability of the tool scales

Scale/sub-scale	Original	Lithuanian case
TEACHER BURNOUT		
Exhaustion	0.70	0.766
Cynicism	0.82	0.774
Inadequacy	0.71	0.780
Overall burnout	0.85	0.878
TEACHER SELF-EFFICACY		
Instructing	0.81	0.873
Adapting instructions to individual needs	0.87	0.898
Motivating students	0.91	0.893
Maintaining discipline	0.90	0.908
Cooperating with colleagues and parents	0.74	0.849
TEACHER STRESS		
Perceived helplessness	0.87	0.898
Lack of self-efficacy	0.74	0.795
Overall perceived stress	0.83	0.814

Researchers were aware that Cronbach's alpha is a measure of reliability but not validity. It can indicate whether responses are consistent between items (reliability), but it cannot determine whether the items measure the correct concept (validity). In this light, researchers saw obtaining a satisfying and acceptable Cronbach's alpha (at least) as a necessary step for establishing reliability of the tool (Frost, 2023). Questionnaires were distributed online, using the platform www.apklausa.lt., taking into consideration that all Lithuanian teachers use internet tools and were able to access the questionnaire.

Data analysis

Descriptive statistics were applied for sample presentation: frequency, percentage, and graphs. ANOVA was applied in order to compare variables according to demographics. Correlation and linear analysis was applied to define relationships between variables. In all cases significance level was identified as 0.05.

Research ethics

The studies involving human participants were reviewed and approved by Committee for Educational Research Ethics, Educational Research Institute, Vytautas

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Magnus University (February 17, 2022, Protocol No. 5), and from the Research Board of Vytautas Magnus University (March 1, 2022, Protocol No. 17). The participants provided their written informed consent to participate in this study.

4 Results

Teacher (professional) burnout

Teachers' burnout calculations had different methodology, and the results were calculated as averages overall and for sub-scales (minimum 1, maximum 6). The highest scores are for exhaustion and the lowest – for cynicism (see Figure 1).

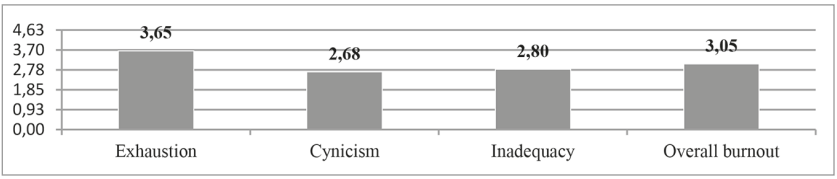

Figure 1: *Overall teachers' (professional) burnout (averages)*

No significant differences were found according to educational level or work experience; however significant differences were identified according to age for the exhaustion sub-scale (see Figure 1).

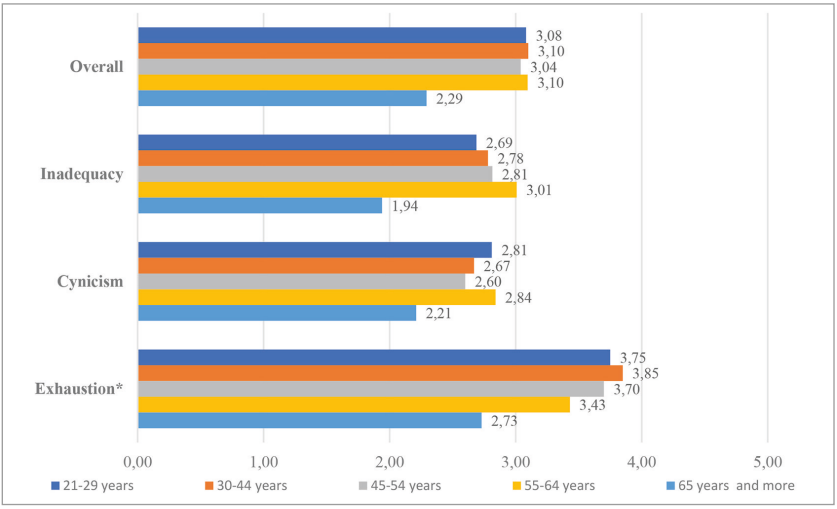

Figure 2: Teacher burnout according to age (*p<0,05)

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Teachers aged over 65 years demonstrated significantly lower exhaustion level (ANOVA F (5, 421) = 3.750, p = 0.002) than other age groups' teachers. No significant differences were calculated for other sub-scales or overall burnout level according to the age.

Teacher self-efficacy

Teachers' self-efficacy results are presented in Figure 3. Each sub-scale consisted of 4 items. The sum of each sub-scale was calculated (possible minimum was equal to 4, possible maximum was equal to 28). The highest sums are for *Instruction/ teaching* and *Cooperating with colleagues and parents.* The lowest sum was for *Motivating students.*

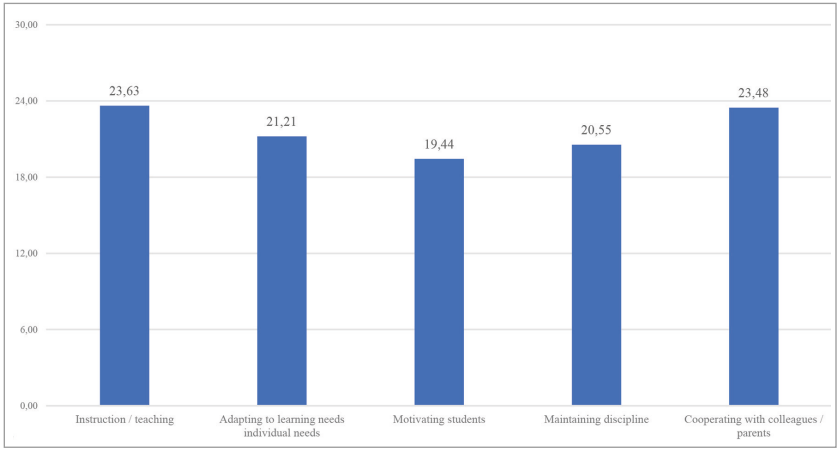

Figure 3: Teacher's self-efficacy

No significant differences were identified according to teachers' educational level. As the male group is significantly smaller than the female, no comparisons were made according to gender.

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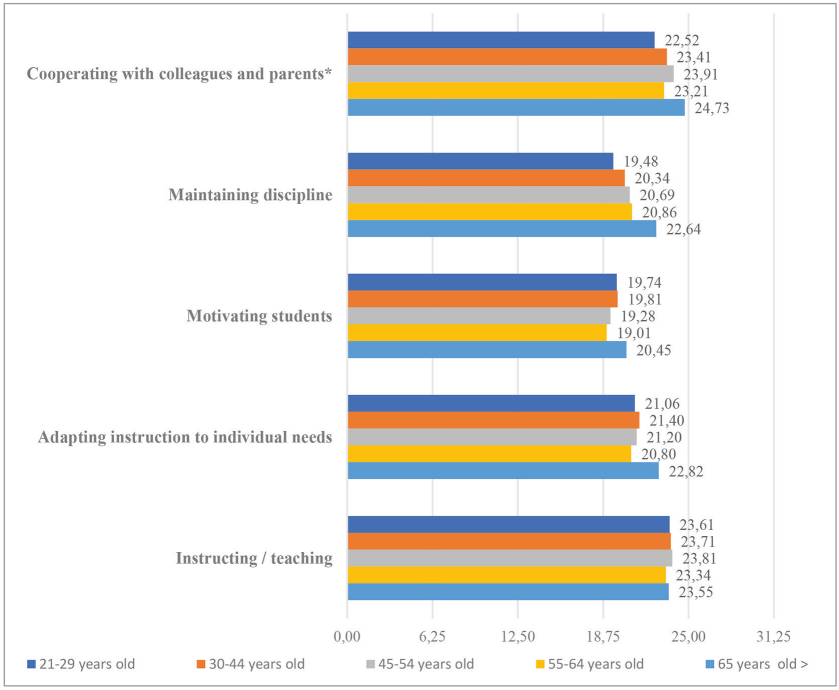

Figure 4: Teachers' self-efficacy according to age (*p<0,05)

The significant differences according to age were identified for sub-scale *Cooperating with colleagues and parents* (calculated ANOVA F (5, 421) = 2.292, p = 0.045). Older teachers report that they cooperate more effectively with colleagues and students than younger colleagues. No significant differences were identified for other teachers' self-efficacy sub-scales according to the teachers' age.
Figure 5

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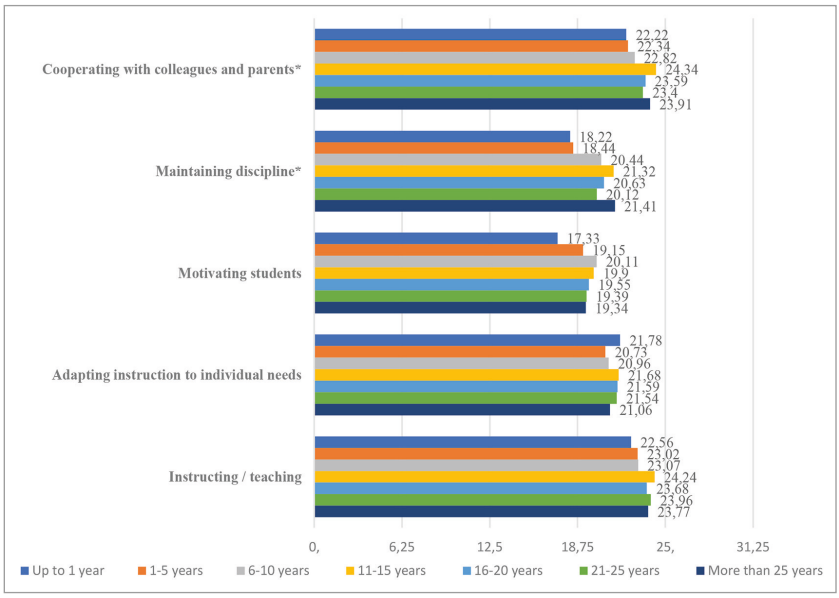

Figure 5: Teachers' self-efficacy according to work experience (*p<0,05)

The significant differences according to work experience were identified for two following sub-scales: *Maintaining discipline* (calculated ANOVA F (6, 420) = 3.761, p = 0.001) and *Cooperating with colleagues and parents* (calculated ANOVA F (6, 420) = 2.781, p = 0.012). No significant differences were identified for other self-efficacy sub-scales according to the years of work experience.

Teachers' stress

Perceived overall stress was calculated as sum (range 0-40), and the average is 18.19 (*SD 6.07*), so the overall stress level was evaluated as moderate. The sum of perceived helplessness items might be from 0 to 24, and sum of lack of self-efficacy from 0 to 16. Averages of calculated sums were 11.93 and 6.26 respectively. 19.4% (83 teachers) of teachers perceived low level of overall stress, 73.1% (312 teachers) – perceived moderate level of stress, and the rest of teachers 7.5% (32 individuals) perceived high level of stress.

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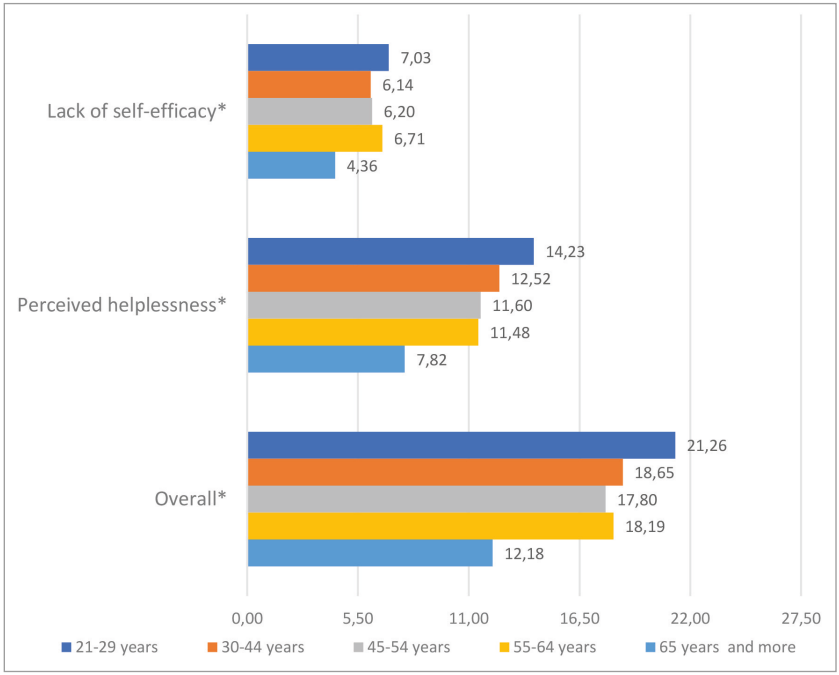

Figure 6: Teachers' perceived stress according to age (*p<0,05)

Overall perceived stress level, as well as both sub-scales stress level, were significantly different according to age: young teachers' (21–29 years old) stress levels were significantly higher level and older teachers (65 and over years old) perceived lower level of stress (see Figure 6). ANOVA for overall perceived stress was F (5, 421) = 5.301, p = 0.000; for perceived helplessness F (5, 421) = 3.963, p = 0.002; for lack of self-efficacy F (5, 421) = 3.552, p = 0.004).

This is confirmed by stress groups' analysis (see Table 2): most teachers over 65 years old experienced lower level of stress. All other groups according to the age experienced mostly moderate stress level (c^2=25.186, df=8, p=0.001).

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Table 3: Teachers' perceived stress according to age groups

Stress level groups					
		Low stress level	*Moderate stress level*	*High stress level*	***Total***
21–29 years old	Frequency	2	22	7	31
	%	6.5%	71.0%	22.6%	100.0%
30–44 years old	Frequency	27	99	13	139
	%	19.4%	71.2%	9.4%	100.0%
45–54 years old	Frequency	31	110	8	149
	%	20.8%	73.8%	5.4%	100.0%
55–64 years old	Frequency	14	72	4	90
	%	15.6%	80.0%	4.4%	100.0%
65 years old and more	Frequency	6	5	0	11
	%	54.5%	45.5%	0.0%	100.0%
Total	Frequency	80	308	32	420
	%	19.0%	73.3%	7.6%	100.0%

Perceived stress level is not significantly related to educational level or work experience of teachers.

Relationship between teacher burnout, self-efficacy and perceived stress

The correlations between teacher self-efficacy and teacher burnout are weak; the essential trends are worth discussing (see Table 4):

Teacher self-efficacy during teaching and teacher professional burnout are negative and very low, but there is only one insignificant negative – between teaching and exhaustion. When correlating teaching relationships with cynicism, inadequacy, and overall burnout, the relatively strongest relationship is between teacher self-efficacy during instruction/teaching and teacher cynicism (the more effective the teaching, the less cynicism the teacher displays, and the more teacher cynicism, the less efficacious teaching).

Teacher adaptation of instruction/teaching to individual student needs is weakly correlated with the burnout variables, but all correlations are significant. The strongest correlation is between the teachers' adaptation of teaching to individual students' needs and the teacher's cynicism: the more effective the adaptation of teaching, the less cynical the teacher is. The same trend is observed with other correlations: the more effective the adaptation of the teacher's teaching to the individual needs of the students is, the less the teacher experiences exhaustion and inadequacy.

doi.org/10.35468/6091-06

Correlations between the teacher's effectiveness in motivating students and the variables of professional burnout are low positive, but significant. The strongest correlation is between teacher effectiveness in motivating students to learn and teacher cynicism: the more effective the motivation, the less cynicism the teacher expresses. Similar trends are observed in other correlations: the more effective student motivation is, the less the teacher feels exhausted or inadequate.

Correlations between teacher-maintained positive discipline and professional burnout variables are very low positive (very weak), but significant. The weakest correlation is between positive discipline maintained by the teacher and burnout experienced by the teacher: the stronger the positive discipline maintained in the classroom, the less burnout the teacher feels. The strongest correlation between positive discipline and teacher cynicism: the more positive discipline, the lower the teacher's cynicism.

The correlation between the teacher's cooperation with colleagues and parents and the variables of professional burnout is very low and negative, although it is significant: the stronger the cooperation with teacher colleagues and parents, the less expressed cynicism (stronger correlation) and inadequacy. A non-significant negative correlation prevails between a teacher's effective cooperation with fellow teachers and parents and burnout.

Correlation between all variables of a teacher's perceived stress with all variables of professional burnout are moderate positive. The correlations between perceived hopelessness and general burnout (the more hopelessness is experienced, the stronger the general professional burnout of the teacher) and between perceived powerlessness and burnout (the more consciously perceived and experienced powerlessness, the stronger the burnout is experienced) are stronger than the correlations between the teacher's perceived hopelessness and the teacher's cynicism (the stronger the teacher experiences helplessness, the stronger the cynicism is expressed) and between the teacher's perceived helplessness and the teacher's inadequacy (the stronger the teacher's experience of helplessness, the stronger the experienced feeling of inadequacy).

The correlations between the teacher's lack of self-efficacy (as a perceived stress variable) and the teacher's professional burnout variables are positive, very low, but significant. The weakest/lowest correlation is between lack of self-efficacy and burnout, and the strongest/highest is between lack of teacher self-efficacy and inadequacy (the stronger the sense of teacher self-efficacy, the stronger the experience of inadequacy). The trends of the other two positive, very weak correlations are similar - the stronger the teacher experiences the feeling of lack of self-efficacy, the stronger the teacher's cynicism and general professional burnout.

The correlation between teacher-perceived general stress and teacher burnout variables is positive and moderate. The strongest significant correlation is between the teacher's perceived general stress and experienced general professional burnout

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– the stronger the perceived general stress, the stronger the experienced general professional burnout. The other three moderately strong correlations show the following tendencies: the stronger the perceived general stress experienced by the teacher, the stronger the teacher's cynicism and inadequacy.

Table 4: Correlations between teacher professional burnout, self-efficacy and perceived stress

		Teacher burnout: Exhaustion	Teacher burnout: Cynicism	Teacher burnout: Inadequacy	Overall burnout of teachers
Teacher self-efficacy: Instruction/ teaching	Pearson Correlation	-.040	-.181**	-.159**	-.142**
	Sig. (2-tailed)	.411	.000	.001	.003
	N	427	427	427	427
Teacher self-efficacy: Adapting instruction/ teaching to individual needs of students	Pearson Correlation	-.164**	-.276**	-.247**	-.259**
	Sig. (2-tailed)	.001	.000	.000	.000
	N	427	427	427	427
Teacher self-efficacy: Motivating students	Pearson Correlation	-.201**	-.340**	-.299**	-.316**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	427	427	427	427
Teacher self-efficacy: Maintaining discipline	Pearson Correlation	-.169**	-.275**	-.210**	-.246**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	427	427	427	427
Teacher's self-efficacy: Cooperating with colle-agues and parents	Pearson Correlation	-.082	-.214**	-.172**	-.175**
	Sig. (2-tailed)	.091	.000	.000	.000
	N	427	427	427	427

doi.org/10.35468/6091-06

Teacher's perceived stress: Perceived helplessness	Pearson Correlation	.614**	.559**	.510**	.641**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	427	427	427	427
Teacher's perceived stress: Lack of self-efficacy	Pearson Correlation	.160**	.240**	.258**	.249**
	Sig. (2-tailed)	.001	.000	.000	.000
	N	427	427	427	427
Teacher's perceived stress: Overall perceived stress by teachers	Pearson Correlation	.577**	.567**	.535**	.639**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	427	427	427	427

Overall burnout has a significant correlation with self-efficacy and stress. However, correlations between burnout and self-efficacy are very weak and positive, and significant. Correlations between perceived helplessness and all burnout dimensions as well overall stress and all burnout dimensions are moderate positive ($r > 0.5$) and significant.

Linear regression results confirmed that overall burnout might be significantly affected by only one variable of self-efficacy (ability to motivate students) and both variables of perceived stress such as perceived helplessness and lack of self-efficacy ($R^2 = 0.446$, $F(3, 423) = 113.737$, $p = 0.000$) (see Table 5).

Table 5: Coefficient matrix of linear regression: teacher self-efficacy and perceived stress

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.872	.246		7.600	.000
Teacher perceived stress: Perceived helplessness	.121	.008	.581	15.215	.000
Teacher perceived stress: Lack of self-efficacy	.052	.014	.137	3.714	.000
Teacher self-efficacy: Motivating students	-.031	.009	-.127	-3.330	.001

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The main factor which impacts burnout is perceived helplessness (β=0,581). Exhaustion significantly affects only perceived helplessness (R^2 = 0.377, F (1, 425) = 257.726, p = 0.000, β = 0.614).

5 Discussion

Differences in the characteristics of professional burnout experienced by teachers according to their educational level, work experience, and age

The research results revealed the highest scores for exhaustion and the lowest for cynicism. This may mean that when a teacher experiences professional burnout, exhaustion is the strongest. Exhaustion at both physical and psychological levels constitutes the core dimension of professional burnout. It is characterized as a state of physical and emotional exhaustion due to prolonged exposure to work-related problems (Mijakoski et al., 2022).

From our research results it is evident that at a time when the teacher experiences professional burnout, cynicism is observed as the weakest characteristic. Cynicism is described as resistance to change, the result of negative experience with earlier reforms, or no faith in change for the better. Cynicism is expressed by tendency to mistrust others, undermine positive motives of their actions, have a pessimistic outlook on the world (Chudzicka-Czupała et al., 2014).

In our study, teachers over 65 years old demonstrated significantly lower exhaustion levels than other age groups' teachers. Conversely, in previous studies younger teachers reported significantly higher emotional exhaustion than older teachers (Anderson & Iwanicki, 1984; Byrne, 1991; Russell et al., 1987). Noor and Zainuddin (2011), on the other hand, in their sample of female teachers found that older female teachers experienced more emotional exhaustion than younger teachers did. However, our study did not test the difference between teacher genders in the professional burnout variable, because actually more than three-fifths of the sample is female. These findings show that the demographic variable of age is not constant and cannot be a key argument in the assessment of teacher exhaustion.

In our study, no significant differences were found according to teachers' educational level or work experience, however significant differences were identified according to age for exhaustion and overall burnout level among teachers. In the study, age was the strongest predictor for emotional exhaustion and depersonalization, while teachers' rank is the best predictor for personal accomplishment. Mota and Rad (2023) found significant differences for sex, with men reporting higher exhaustion than women. Researchers found significant differences between other sociodemographic characteristics and burnout among Iranian teachers. However, the effect of demographic characteristics of teachers on exhaustion is not that

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silent. The variety of exhaustion (in)dependencies on age in different countries allows us to assume that the relationship between exhaustion and the age of the teacher is contextual, i.e., is related to the specifics of the educational system of a particular country.

The correlates of exhaustion were identified according to socio-demographic factors such as sex, age, marital status, and school (organizational) and work-related factors among teachers, including the years of teaching, class size, job satisfaction, and the subject taught among Hong Kong teachers (Agyapong et al., 2022).

Occurrence of teacher self-efficacy and its differences according to the teacher's education, work experience, age and gender

Our research highlighted that the highest sums are for *Instruction/teaching* and *Cooperating with colleagues and parents* among Lithuanian teachers. De Jong et al. (2019) provide arguments that teacher collaboration in secondary schools can form a fruitful context for teacher professional learning. Short-term collaboration initiatives depend on the prior existence of collaborative cultures.

In our study, the lowest sum was found for *Motivating students,* and no significant differences were identified according to educational level in the sample of Lithuanian teachers. However, Can (2015) found that factor level is high, and age, educational level and status have significant effects on motivational factors, yet, gender, marital status and income are not influential on motivational factors among teachers in Turkey. Researchers highlighted that younger teachers and those holding a master's degree are more affected by motivational factors than the others. Such contrasting results between teachers of different schools show that demographic factors are important in assessing teacher self-efficacy.

Our research showed the significant differences according to age were identified for sub-scale *Cooperating with colleagues and parents*. Older teachers cooperate more effectively with colleagues and students than their younger colleagues in Lithuania. Collaborating with other relevant stakeholders such as parents, colleagues, and a school's leadership team is critical for creating a positive work environment. A positive workplace has the potential to contribute to teachers' professional wellbeing (Nwoko et al., 2023).

The significant differences according to work experience were identified for two following sub-scales: *Maintaining discipline* and *Cooperating with colleagues and parents*. Teachers who have worked in a school for 11–15 years and longer than 25 years are more effective in maintaining positive discipline in a classroom and cooperating with colleagues and parents than those who have 1–10 years and 16–25 years of work experience in a school in Lithuanian context.

Such results allow us to say that the teacher's practical experience in working with students at school is a strong factor that will be related to professionalism, competence, reliability and authority for the school community, and especially for

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fellow teachers, student parents and students (Graham et al., 2020). However, it is difficult to find objective arguments why exactly such a distribution is based on the teacher's practical work experience in Lithuanian sample, because groups with 16–25 years of schoolteacher's experience cannot be called inexperienced. Thus, another assumption would be that the teacher's work experience in the school is not a key argument for self-efficacy in terms of maintaining positive discipline and cooperating with colleagues and parents. Such an assumption is justified by the result from our research that no significant differences were identified for other self-efficacy sub-scales according to the years of work experience.

Characteristics of the perceived stress of teacher and differences between perceived stress according to the teacher's educational level, years of work experience, age and gender

Our study revealed that the most teachers in the Lithuanian sample perceive a moderate stress level in the school environment. Young teachers' stress levels were significantly higher in comparison to teachers over 65 years old who perceived lower levels of stress. Kavita & Hassan (2018), in their study, highlighted that teachers who have teaching experience between 11–15 years experienced more stress, and teachers aged between 31–50 years experienced more stress compared to the younger age group (20–30 years) and older age group (51–60 years). Thus, the teacher's age, as one factor, is not an argument in assessing the teacher's perceived stress level. However, by linking age and work experience as one, such a complex factor could be evaluated as having an impact on the level of stress experienced by the teacher at school. This assumption is confirmed by the result of our research, that perceived stress level is not significantly related to teacher work experience.

Research findings in our study showed that perceived stress level is not significantly related to the educational level of a teacher. Malik et al. (1991) provide arguments that grade level taught, not the educational level of a teacher, has a negative effect on teacher stress, whereas teaching experience did not account for a significant portion of the variance in the dependent variable. These results suggest that it might be beneficial to school administrators and others to focus more on possibly strong effects of grade level taught on teacher stress, rather than concerning themselves with alleviating the stress experienced by novice teachers. Teachers with more experience (more than 30 years) had the lowest scores in emotional exhaustion, which is related to perceived stress (Teles et al., 2020). The evidence based on these studies allows us to say that the level of education of the teacher is not an influencing factor on the experience of stress.

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Relationships between teachers' professional burnout, self-efficacy and perceived stress

Our study revealed that overall burnout has a significant correlation with self-efficacy and stress among Lithuanian teachers. The crucial factor influencing burnout is a lack of professional skills, resulting in teachers facing stressful situations more often than teachers whose competencies are higher. Thus, it may be assumed that it is not only competency itself but also "simply" the belief about competency (self-efficacy) is helpful (Smetackova, 2017).

However, correlations between burnout and self-efficacy are positive, however weak, in Lithuanian sample. This may reflect the tendency that the more effective teachers are in teaching, cooperating, motivating students, and maintaining positive discipline, the more cynical they are; inadequate, but at the same time more exhausted. Meanwhile Savaş et al. (2015) found an inversely proportional result: the correlation test between teacher self-efficacy scores and burnout scores of the participants put forward a medium, negative and significant correlation between these variables. This result indicates that the increase of participants' scores in self efficacy was accompanied with a significant decrease in burnout.

Our study revealed that overall burnout might be significantly related to perceived helplessness and insufficiency of self-efficacy. It shows that teachers' emotions and the burnout, stress and self-efficacy are interrelated (Burić et al., 2020).

6 Conclusions

This study adds to our understanding of socio-emotional professional being of teachers in Lithuania in regard to professional burnout, self-efficacy and perceived stress in the teaching profession.

The results showed the following tendencies regarding Lithuanian teachers' professional burnout, self-efficacy and perceived stress:

Lithuanian teachers' age as an independent variable does not have a significant effect on the level of teacher experienced exhaustion. Yet, when the teacher's age and work experience are integrated and treated as one complex variable, it becomes meaningful in explaining teacher exhaustion and professional burnout. This shows that it is important to contextualize the quantitative variables in specific context, and to interpret the correlations without breaking away from the particular context by seeing it through specific educational system and educational institutions.

Lithuanian teachers' self-efficacy is not related significantly to educational level and age. However, work experience makes the difference in teacher's self-efficacy: teachers who have more work experience tend to feel more effective in maintaining positive discipline in the classroom when working with students, and collaborate more effectively with fellow teachers and parents.

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Overall, Lithuanian teachers perceive moderate level of stress. Stress level is related to the teacher's age: younger teachers perceive higher level stress than older teachers. However, this relationship can be objectively explained only by connecting the teacher's age with their professional practical experience. Age itself, without pedagogical experience, has no significance in explaining the perceived stress experienced by the teacher in the school environment.
Teacher powerlessness and perceived stress have significant positive relationships with the components of professional burnout, cynicism, inadequacy and general burnout. This shows the need in the education system and the school environment to realize the importance of the socio-emotional health of the teacher. Therefore, it is necessary to develop teachers' socio-emotional competences, helping them to strengthen their resistance to stress (resilience) and to develop social and professional flexibility, adaptability and other general/generic/core competences, which create prerequisites for teachers to successfully navigate in the professional field and effectively perform professional duties and obligations. It also prevents teachers from leaving the profession early, or retiring early.

This study has empirical and practical implications: it is relevant to study the problems of teachers' professional burnout, stress, self-efficacy in connection with contextual qualitative variables and specifying the interrelationships between variables in order to identify specific problems and provide empirical evidence to solve them. From a practical point of view, the results show that the socio-emotional state of teachers should not be dismissed as an insignificant aspect. Therefore, the school administration must make efforts to develop a positive school climate which supports the socio-emotional state of the teacher. At the same time, the school administration must pay greater attention to the development of teachers' socio-emotional competences, without ignoring their importance in the teacher's professional life.

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Chapter 7

Austria

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Perspectives for unfolding well-being in the context of teacher education: Emerging well-being Insights from Theoretical Austrian Traditions

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Abstract

This article focuses on teacher education and aims to gain new and different insights into teacher education with reference to wellbeing. The Austrian contribution initially introduces the project team and the understanding of well-being from a specific tradition, which has particularly evolved through the project over time. It highlights the importance of well-being and the diversity of its interpretations, aiming to link this approach with several Austrian traditions of thought. It also seems theoretically not insignificant how the word 'well-being' or 'wellbeing' is spelt. To emphasize the connection to teacher education, the concept of well-being is associated with the Didactic Triangle of Johann Friedrich Herbart (1776–1841) and interwoven across and through Austrian traditions of thinking. Some exemplary excerpts from focus groups illustrate the theoretical considerations presented in this paper. The article suggests that future research should particularly contemplate the directedness of one's exegesis – because when considering Austrian traditions of thought, a careful unpacking of the meaning is required. Particularly in the application of the idea and concept in relation to teacher education.

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1 Introduction

The Erasmus+ Project and the Austrian Teaching to Be Team

The EU-funded Erasmus+ project Teaching to Be: supporting teachers' professional growth and well-being (T2B) was conducted from 2021 to 2024 by eight partner institutions in Latvia, Lithuania, Norway, Italy, Portugal, Spain, Austria, and Slovenia. The aim was to develop an online wellbeing course (OWC) for school development and the promotion of the professional wellbeing of teachers, based on insights from all participating partner countries. The project's objective was to empower teachers by improving their social, prosocial, and emotional competencies, preventing burnout, and promoting the school as a central hub for the social, prosocial and emotional development of students.

The project team in Austria consisted of a collaboration of academic employees from the *Karl Landsteiner Private University of Health Sciences* (KL) in Krems, Research Center for Transitional Psychiatry, led by Professor Beate Schrank and with the participation of Sylvia Dörfler, and the *University College of Teacher Education in Lower Austria* (PH NÖ) in Baden as associated partner, Department of Diversity, led by Professor Kerstin Angelika Zechner and with the participation of Professor Christian Wiesner.

Both institutions, forming the T2B-Team in Austria, worked in collaboration with teachers to research strategies that counteract stress factors and contribute to the enhancement of wellbeing through the process of professionalizing teachers. During the development phase, a Qualitative Participatory Action Research (PAR) approach was conducted, utilizing *focus group* discussions, qualitative interviews, and feedback sessions for the content development of the course. The data utilized for the in-depth insights presented in this paper were collected through *focus groups* in five Austrian schools, each comprised of fifteen teachers. These focus group sessions were conducted between October 2021 and April 2022 during school meetings. The primary themes and inquiries related to *professional well-being* were established by the EU team and structured into a semi-structured questionnaire. Each focus group discussion had an approximate duration of 90 minutes. Participants were informed about the group's objectives and the session's procedures. At the start of each session, their consent was sought for recording the meeting for subsequent transcription. Moderators posed questions from the semi-structured questionnaire and further delved into specific topics with follow-up inquiries. This article will reference only a few statements from these discussions; however, the reflections are grounded in the prevalent themes and structures that emerged. This article focuses on teacher education and aims to gain new and different insights into teacher education with reference to well-being. Therefore, the team from the *University College of Teacher Education Lower Austria* (PH NÖ) takes responsibility for the further thoughts presented in this article.

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The concept involves leveraging *educational development* also as a strategy to sustainably enhance long-term *teaching quality* and facilitate continuous *school improvement*. We will delve deeper into *teaching enhancement* and, in doing so, explore *school development*, highlighting the need to closely observe the *dynamic* and *evolving* aspects embodied in the term *well-being*.

Exploring well-Being through the concept of literacies

The paper focuses on future-oriented research directions, both conceptually and theoretically, to highlight *well-being* as a crucial component of future literacies. The concepts of (health or/and well-being) *literacy education* and *being literate* are deeply embedded within social and prosocial contexts, characterized by their significant value, complexity, and an inherent emancipatory nature (Bèlanger, 1994). Echoing Street's perspective from 1994, it's crucial to acknowledge the existence of multiple *literacies*, which extend beyond mere collections of competencies or basic Literacy (Wiesner & Prieler, 2023). It's important to understand that the concept of a singular or basic *Literacy*, represented with a capital 'L' and a single 'y', is just one perspective. A more open-minded approach is needed – especially to understand such a *complex* construct as *well-being* – a construct that is composed of *multiple literacies*.

Therefore, comprehending well-being in its entirety involves understanding the broader concept of *being literary*, which is feasible only by acknowledging the *diversity* and *literacies*. The idea of a literate mind demands a profound reconsideration of our cognitive perception of well-being, which involves *being literate* (Wiesner & Prieler, 2023). However, in this context, *being literary* implies addressing *well-being* from a *literary* viewpoint, not just from a literate standpoint (Livingstone et al., 2008). In this paper, the term is spelled with a hyphen, so it's referred to as well-being. *Being literate* and *being literary* differ also in terms of measurability, where either *competencies* or *literacies* are emphasized. To grasp the concept of *literacies*, one must consider *overlay phenomena* like the Moiré effect, familiar from gestalt perception [Gestaltwahrnehmung]. Minor shifts can lead to substantial alterations in structure and can result in significant structural transformations (as illustrated in Figure 1), a concept detailed by Wiesner, (2024), Wiesner & Prieler (2023), Wiesner & Schreiner (2023), and Wiesner & Zechner (2023), in their studies on *literacies* [Vermögen], *overlay effects* [Überlagerungsmuster], and *ambiguous figures* [Kippbilder] in the context of Gestalt theory.

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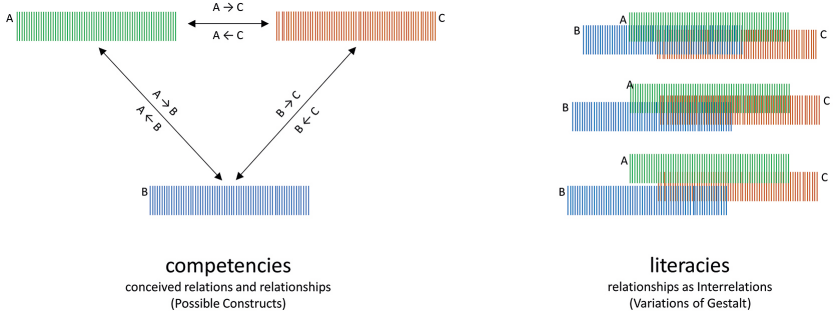

Figure 1: The Distinction between the Concept of Competencies and literacies (in reference to Wiesner & Brandhofer, 2024; self-drawn)

The further considerations in this paper will open this perspective and attempt to show how new, different paths for a deeper understanding based on the findings from the current project can become possible in the future. In the following paper, some specific German terms are used, which contain a certain nuance in the German language that may be lost in the English translation. Therefore, the respective essential German terms within the article will be presented in square brackets, similar to the use of insertions in quotations.

2 Understanding the Importance of various Modes of Well-Being

Well-being as a state of being what?

A significant aspect of *wellbeing* or *well-being* is commonly referred to as *professional well-being*. But what exactly does this term or idea mean? And how is the idea and the concept also expressed in writing through theoretical references? It's important to note that there isn't a singular, universally accepted theoretical concept of well-being or wellbeing. Instead, it likely encompasses various aspects and foundations, especially when considering well-being or wellbeing in relation to the educational work environment and to the world. To facilitate reading, in relation to the upcoming theoretical references, we now choose the spelling of *well-being* (even though the project itself preferred the spelling *wellbeing*).

Initially, there's an approach to *well-being* (or Well-Being, Well-being, Wellbeing, wellbeing) and *Mental Health Literacy* closely associated with mental illness, as seen in Marinucci's works, among others (Marinucci et al., 2018, 2022, 2023). It's crucial to recognize the risk of oversimplification inherent in a mere *literacy-based*, *informational perspective* on mental health or well-being. Instead, the concept of

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mental health and/or well-being should be broadly expanded to include formative, prosocial, societal, and cultural dimensions, aligning with the broader concept of *literacies*. The concept of using *Literacy* or *Competence* instead of *literacies* tends to lead to simplified views about a highly complex subject area, resulting in hasty definitions rather than clarifying descriptions of phenomena. Alternative approaches include Brann's perspective on *mental health education* as *self-efficacy* and *teacher training* (Brann et al., 2022) and Byrne's *well-being approach* (Byrne et al., 2022b, 2022a). In these discussions, it's easy to overlook that *multiple aspects are involved simultaneously*, especially the significance of *intentionality* and the comprehension of *literacies* (as depicted in Figure 1).

Even today, there is *no* concrete understanding of health; it's often more about the absence of illness than a clear definition or clarifying description of health. In German, when someone feels unwell, they might say *Es fehlt mir etwas* and *Mir geht es nicht gut*, which literally translates to *I am lacking something*. A healthy person engages in a wide range of activities, suggesting that health is essentially synonymous with well-being. As the German philosopher Gadamer (2004, p. 73) eloquently described *health as well-being*, defining it as a "condition of not noticing, of being unhindered, and of being ready for and open to everything," weaving this sort of definition into a *complex network of thoughts*. In Plato's *Phaedrus*, it is argued that the *body* [Körper] cannot be treated without simultaneously addressing the *soul* and *Leiblichkeit*, suggesting a holistic approach to being that goes beyond mere embodiment (Whitehead, 2019). *Leib*(lichkeit) refers to the *lived body*, the way we humans experience and relate to the world, including our interactions with it. Self-expression is possible only through the Leib, as it is the lived and vital body that enables us *to experience well-being through intentionality*.

The Oxford Advanced Learner's Dictionary defines well-being somewhat imprecisely as the condition of *being healthy*, and *happy* (Hornby, 1995). Etymologically, the Old English words 'beon', 'beom', and 'bion'are similar to the Greek term 'phu-', meaning *to become*, *exist*, or *come into being*. This is similar to the Old Irish 'bi'u' and the Lithuanian 'būti', which translate to *to be* or *I am*. Additionally, the word *well* in Old English has connotations that extend beyond "*good*," encompassing meanings like "*very much*, *better*," and implies being "*in good fortune*, *happy*", or '*in good health*, *not ailing*' (Wedgwood, 1872; Hoad, 1996). It is *being* as a prerequisite for, and a central component of, *well-being*. Byrne's writing (2022a, p. 664) highlights the elusive nature of defining *well-being,* noting, "well-being, in its broadest sense, can be conceptualized as a sense of contentment with one's mental, emotional, and physical state." On the other hand, Watson et al. (2012, p. 25) describe *well-being* as a construct "that is fluid in nature and possesses an evolving, context-dependent definition." In a very narrow definition, well-being, particularly its emotional aspect, refers to "happiness, confidence and not feeling depressed" (p. 1). But well-being seems to encompass a broader scope than just

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the binary opposite of being unwell. Therefore, *well-being* can be seen as a term for integrated, *meaningful* lives. As Whitehead (2019, p. 42) posits, "existentially, health is experienced as well-being." This concept should not be interpreted as simply feeling good or not feeling depressed, but rather as experiencing *various modes of existence in a proficient way* – as experiencing well-being. And as Gasper (2004), p. 7) puts it: "wellbeing thus has diverse aspects. Rather than set up a precisely delimited, narrow single notion of *well-being,* and then try to police its 'correct' usage, we will do better to see wellbeing as an umbrella notion."
Our stance aligns with the core principles of the T2B project, which emphasizes supporting teachers' professional growth. This approach prioritizes the *professionalization* of educators, placing it at the forefront of the discussion.

3 The Austrian Perspective to develop Insights

Some theoretical traditions from Austria

Foremost, it is imperative to underscore reflections on a *unique Austrian scientific tradition* that not only underpins this contribution but also seamlessly integrates the understanding of well-being and psychosocial competencies into the broader context of *being-in-relations*. To underscore Brentano's concept of *intentionality* (1874), the term *well-being* is written with a hyphen, especially in the context of Austrian philosophical tradition. This hyphenation is indicative of an approach that deeply appreciates the *nuanced meanings* and the intricate relationship between the components of *well* and *being*.
We delve into the concept of a distinct and specific Austrian educational philosophy, particularly within the realms of *philosophy of psychology* and *philosophy of pedagogy*. These intellectual traditions trace their roots back to *Franz Brentano* (1838–1917), who mentored and provided ideas (along with stimulations for their interpretation) to *Edmund Husserl* (1859–1938), *Anton Marty* (1847–1914), *Christian von Ehrenfels* (1859–1932), *Carl Stumpf* (1848–1936), and *Alexius Meinong* (1853–1920), as well as, in the long run, to *Karl Bühler* (1879–1963). *Egon Brunswik* (1903–1955) and *Sir Karl Raimund Popper* (1902–1994), who earned their doctorates under Bühler, furthered this distinctive Austrian approach through the so-called *Denkstudien* (thinking studies; Bühler, 1907, 1908a, 1908b), facilitating scientific analyses and syntheses (Wiesner, 2022a; Wiesner & Schreiner, 2023). This method was also applied by *Charlotte Bühler* (1893–1974) in child and youth research, emphasizing intentions and relationships. From this perspective, teaching is scientifically intertwined with both social science and the humanities. Without Brentano, *Phenomenological Science* and the *Vienna School of Gestalt Perception* [Wiener Schule der Gestaltwahrnehmung] would be inconceivable, as he is the scholarly father of Husserl and the theoretical grandfather of

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Martin Heidegger (1889–1976) and *Max Scheler* (1874–1928) and neither would the *Consistent Empiricism* of *Moritz Schlick* (1882–1936) prevail.

Brentano's approach is notable for highlighting the phenomenon of the "intentionality (or the character of "referring to something [or somebody]")" (Brentano, 1874, p. 306), encompassing actions like ›*I teach*‹, ›*I demonstrate*‹, ›*I explain*‹, and ›*I empathize*‹. From a phenomenological perspective, *wellbeing* is the impression of feeling comfortable and can be described as "being in a state of wellness or health," always in a *dynamic relationship* with something or someone. The concept of *intentionality* [Intentionalität], first introduced by Brentano, *combines* in a unique way a *cognitive* with a *conative* aspect, as noted by Charlotte Bühler (1971, p. 380): "Intentionality implies both a person's focusing on a subject which means or signifies something to him as well as a person's directing himself toward this subject." According to Brentano, to impart any *meaningful* guidance, it is crucial to delineate the focus in those situations and experiences. *Intentionality* entails an arising [Auftauchen], a connecting [Sich-Verbinden], and a fading away [Verschwinden] in *real experiences* rooted in imaginations and concepts [Vorstellungen], judgments [Urteile], and emotional phenomena such as acts of will, sensations and feelings [Willensakte, Empfindungen, Emotionen und Gefühle]. All the aspects listed thus also indicate that we are dealing with *literacies*, meaning an *interplay* and *coexistence* of most diverse moments and abilities. In this sense, Brentano doesn't propose colours, tones, or conversations, but rather envisions people *perceiving colours*, *hearing tones*, and *engaging in speech* – which means *being-in-relatives* [In-Relative-Sein], signifying an engagement or response to somebody or something. In this regard *all* "mental events do not occur in a vacuum [especially in the context of phenomenology and gestalt perception of Bühler]; they are lived by someone" (Gallagher & Zahavi, 2008, p. 19). Phenomenology is notably "anchored to the careful description, analysis, and interpretation of lived experience" (Thompson, 2007, p. 16) – focusing on "how thinking, perceiving, acting, and feeling are experienced in one's own case." The *understanding of well-being* is based on the ability to comprehend *intentionality*. Intentionality should not be mistaken for merely pursuing a purpose; it involves adopting a *specific direction*, *following an aspiration*, and *possessing a clear sense of orientation*. Intentionality means a respectively specific quality of *directedness* [Gerichtetheit]. In both perception and teaching, one engages in a state of understanding and relating to something, a process from which the phenomenon of well-being also naturally develops.

From the perspectives of both the history of science and scholarly work, it's also recorded that *Sigmund Freud* (1856–1939) studied under Brentano at the University of Vienna, where he attended a lecture series on philosophical texts (Schwediauer, 2005). It was during this period that the concept of *metapsychology* began to take shape as a *dynamic process*, characterized by interplaying forces and inherent conflicts. Specifically, Freud incorporated theoretical ideas from Bren-

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tano (1874, p. 8), such as "every mental phenomenon is characterized by what the Scholastics of the Middle Ages referred to as the *intentional* (or mental) inexistence of an object, or, in more modern terms, the reference to a content, the direction toward an object." Furthermore, Brentano suggested (1874), "in presentation, something is presented; in judgment, something is affirmed or denied; in love, something is loved; in hate, hated; in desire, desired, and so forth." Freud developed his approach and idea of metapsychology out of Brentano's activity, *descriptive*, and *relational* science. *Metapsychology,* in the words of Freud (1936, p. 83), is "a mode of observation in which every mental process is evaluated according to the three coordinates of *dynamics*, *topology*, and *economics*," from which, as a theoretical and *analytical* "application," the division 'into an ego, an id, and a super-ego' emerged.

Beyond Freud's psychoanalysis, the realm of psychotherapeutic schools in Vienna is further enriched by *Alfred Adler*'s (1870–1937) Individual Psychology and *Viktor Emil Frankl*'s (1905–1997) Logotherapy and Existential Analysis, epitomizing the second and third waves of Viennese psychotherapeutic schools. All three theoretical ideas are based on variations of Brentano's concept of *intentionality*. It is particularly evident in the early works of Frankl (1938) that psychoanalysis pursues the personal *awareness* of repressions [Bewusstwerden von Verdrängung], and individual psychology - which should actually be called personality analysis - particularly emphasizes *personal responsibility* [Verantwortlich-Sein] and *community feeling* [Gemeinschaftsgefühl]. According to Frankl (1938), from the first two Viennese schools of psychotherapy emerges the formula: *Being oneself (or being me) is being conscious* [Bewusstwerdung] *and being personal responsible* [Ver-Antwortbarkeit] *in relation to a community* [Gemeinschaft], thereby addressing essential types of intentionality that are opposing and complementary. This leads to possible goals of action: *adaptation* from the psychoanalytic tradition and the *shaping of reality* through the individual-analytic perspective. Frankl (1938) adds the intention of *finding meaning* [Sinnfindung], which always simultaneously requires a focus on *finding values* [Wertfindung] and embraces any discussion on an ideological basis (Wiesner, 2020): Logotherapy entails integrating ideological discourse into one's own thoughts and feelings, allowing for an *existential analysis* [Dasein] to understand the recognition of *responsibility* as a fundamental aspect of human existence. This, in turn, fosters personal *awareness*, transcending repression and enabling the establishment of one's *being-in-relationship* and overall *being* [Sosein]. *Meaning*, as also observed by Adler in 1927, always encompasses both *the* concept of *meaning and the* corresponding *act*, as a specific quality of *directedness* toward something. Therefore, Adler (1927, p. 38) develops three essential moments of personal responsibility: "I have called the three great tasks of life - the task of building successful human relationships [Gemeinschaftsleben], that of pursuing a socially useful occupation [Arbeit], and that of intimate relationships [Liebe]."

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Because all our doings and our actions regarding these three questions is the pathos and response we provide through our way of life as *lifestyle* [Lebensstil]. The three tasks are closely intertwined with each other. Within this context, you'll encounter both the notion of *literacies* and the concept of *intentionality*.

Another Austrian tradition that can be introduced into the discussion is the idea of the *impactful figure* [einprägsame Figur], as championed by *Ludwig Wittgenstein* (1889–1951). This concept opens up new spaces, dimensions, and avenues for thoughts and ideas. According to Wittgenstein (1974, S. 6), *scientific visualization* can lead to *role models* (or guiding models and new paradigms) [Vorbild], not just representations of theory [Abbild]. Instead, images and figures can give rise to new insights. Images and figures are instruments and display the results and events of processes (more than the written word; Wiesner, 2023a) – as will be evident later in this article, particularly in the context of the Didactic Triangle figure.

Examining these concepts and ideas reveals *blind spots* in healthcare and our understanding of well-being, especially in the areas of education [Erziehung] and formation [Bildung]. Such challenges necessitate an appreciation for *Integrative Existential Health Pedagogy*. This approach focuses on comprehending persons within the context of their community. Consequently, in a medical context, the terms *patient* or *client* should more aptly be interpreted as *patient person* (Whitehead, 2019). The term *patient* was originally meant to be an adjective, not a noun. For instance, teachers demonstrate *patience* with children. In education, a teacher exhibits *patience* not only in their own learning journey but also in guiding the learning of others. This perspective brings the enhancement and support of oneself and others to the forefront of understanding. And all people are primarily to be understood as *persons*: "Just as one cannot find two leaves of a tree that are absolutely identical, one cannot find two human beings who are absolutely alike" (Adler, 1927, p. 48).

For Bühler (1971), it revolves around four fundamental life tendencies, each displaying specific *intentionality* and *interwoven* with one another. The first one pertains to the need for personal satisfaction in *meaningful work* as well as ego recognition. The second involves a fundamental inclination towards *self-regulation* and self-limiting *adaptation*, aiming to fit in, belong, and attain security. The third centers on a basic urge for *creative expansion*, personal development, and facilitating self-expression and creative accomplishments. To these tendencies, we encounter a fourth fundamental inclination, which Bühler (1971) interpret as various attempts at *integration*. Bühler (1971, p. 382) refers to it as "order upholding."

Viewed through this lens, the *concept of intentionality* – like the three Viennese schools of psychotherapy and the Viennese School of Gestalt perception – gains a special status and attains a special significance. In the Austrian paper to the T2B project, titled "Teachers' Experiences of Communication Practices with Students, Colleagues, Parents, and School Collective that Shape Their professional

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Well-Being" by Dörfler et al. (manuscript in preparation), the importance of the phenomenon of intentionality is highlighted across multiple countries. This concept is succinctly captured in the phrase *I am well because I am in relationships*' or '*my well-being stems from my intentional involvement with the world, community, and relationships*.

4 The Didactic Triangle and the Development of Teacher Education

One and the others and thoughts about things

To open up a different perspective, in which data can be newly and differently embedded, a model as an *impactful figure* – and similar to a *fishing net* – is necessary, providing the foundation for observation. Bühler's approach to each exploration and understanding is characterized by the tradition of Viennese gestalt perception and the concept of the 'whole and its parts' (Bühler, 1907, p. 330), where Bühler's parts [Momente] are always to be understood as (dynamic) moments *in* a gestalt, forming *together* a structure and multiple fields within a coordinate system. The relationships between the moments are not to be understood like competences, but rather in the sense of literacies that *relate to* and *interweave with* each other. As a model in the sense of a gestalt and as a foundation, Herbart's *Didactic Triangle* [Didaktisches Dreieck] is selected in the present paper for further consideration and with regard to *intentionality*.

The so-called *Didactic Triangle* as a conceptual figure and image, conceived by Heimann (1947, p. 69) based on *Johann Friedrich Herbart* (1776–1841), is the starting and finishing point for determining different relations in teaching development (Wiesner, 2023b). Usually, only the *three poles* of the triangle are emphasized (*teacher-student-topic*), which foregrounds the *polarization* and barely acknowledges the interrelation of the poles or the phenomena of intentionality (see figure 2a). Especially drawing on the Viennese tradition of gestalt perception, it can be shown how the illustration shapes recognition as well as the respective net, and how something seemingly identical can also be completely different despite the (gestalt-)similarity (Welsch, 1987, p. 268). Essential in the form of the Didactic Triangle is the *being-in-relatives* (see figure 2b). Thus, the Didactic Triangle serves for *awareness* [Bewusstwerdung], makes *responsibility* visible [Verantwortlich-Sein] and allows a glimpse into the idea of *meaning-making* [Sinnfindung] in relation to teaching and forming a *community*. It is the *pedagogical situation* in relation to *world orientation* from which the *well-being* of the teaching person develops.

In pedagogy, which in the German-speaking context represents the science of education [Erziehung] and formation [Bildung], there is a fundamental reliance on

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clarifying the basic structure of teaching in this *Pedagogical Triangle*. This triangle not only reveals the comprehensiveness of the pedagogical situation but also opens up possibilities for *well-being* through the observation of respective *intentionality* in the area of educational development. Especially in "teaching, the functions of education and formation are inseparably connected" (Jannasch & Joppich, 1964, p. 12), yet they can be distinguished through a sharpened and deeper view in relation to well-being in the *event* [Geschehen] and based on the *Didactic Triangle.* Education (as *upbringing*) leads primarily to "attitudes, beliefs, and dispositions" and shapes "lifestyles" across generations based on the foundation of relationships *and* well-being. Upbringing is the quintessential relationship – and the relationship occurs between the teaching person and the others (learners).

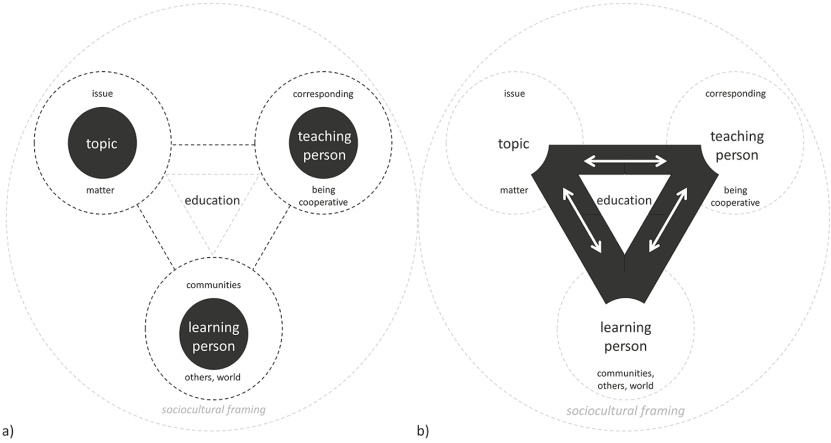

Figure 2: The Didactic Triangle as a Reversible Figure in Gestalt Perception (in reference to Wiesner & Brandhofer, 2024; self-drawn)

A source-oriented, origin-following view of the Didactic Triangle reveals that it derives from the insights of Herbart (1806, 1814). In this work, Herbart (1814, p. 200) clarifies his view: "And since the expansion of power occurs by presenting the pupils with a variety of objects [subjects and facts as content, topics, material, etc.] that stimulate and move them, something third must be placed between the educator [teaching person; mentor, etc.] and the pupil [learning person, student, mentees, etc.] as a means by which the latter is engaged by the former. Such an action is called teaching." As a reminder – the understanding of well-being is based on the ability to comprehend the respective forms of intentionality between the poles, thereby paying attention to the *in-between* and the *relationships*.

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The triadic structure mentioned here as an interplay of questions and answers through expressions between persons about objects, topics and content, can already be found in Platonic Socrates in the dialogue *Gorgias* (2014), where *people converse and mutually teach and learn from each other* (Platon, 456a-457c). Also, in the dialogue *Cratylus* (1993), the triadic is highlighted in relation to Bühler (1934, p. 24), emphasizing language as an organum in the sense of a tool and (musical) instrument, 'to communicate with another about things. This "enumeration *of one – to another – about things* names no less than *three* foundational relations", writes Bühler (1934, pp. 24f.), from which a "three-foundation scheme" similar to the three poles of the Didactic Triangle emerges. This foundational triangle is also the form of modelling the relation of signs (*symptom, symbol, signal*) to each other, upon which the entire sign theory of Bühler (1932) is based, and which can also be found in a similar form in Gardiner (1932) at the same historical time.

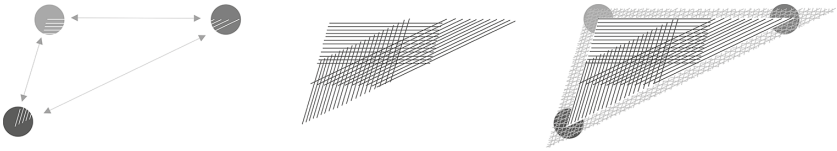

Figure 3: The Didactic Triangle as a Reversible Figure in Gestalt Perception (in reference to Wiesner & Brandhofer, 2024; self-drawn)

Already Platonic Socrates in the dialogue *Cratylus* by Plato (388b) poses Hermogenes the question about teaching: *"Do we not teach each other something and distinguish the objects from each other, according to their nature?*," thus constructing a *triadic structure*, which is found in the expressions and theoretical approaches of Herbart (1806, 1814) and *Paul Heimann* (1901–1967). Davidson (1997, p. 220) also developed in his *philosophy of mind* a similar 'fundamental situation' with his humanities theory of *Triangulation*. In this context, he described a scenario where "at least two beings interacting simultaneously with each other and with their common world," resulting in a *triple interaction*. Triangulation, in this context, alludes to three *different* viewpoints that not only intertwine and interconnect but also give rise to a *foreground* and *background* (refer to Figure 3). This results in a comprehensive perspective as a *Gestalt*, as each of the actors has multiple facets from their viewpoint: Each of the two simultaneously relates to the world, their own thoughts (and topics), and the respective other actor. Thus, each participant learns *together with* others (and their thoughts) and as well as from the world (our globe) according to Donald Davidson (1917–2003). From this developed particularly the *aspects of thinking* as well as the *objectivity of thought* and the *content*

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of thoughts about the world as forms of *world orientations*, worldviews [Weltanschauungen], and from them, *scientific nets*. Fundamentally, Davidson thus also formulated positionalities within a coordinate system (in the triangle).

Herbart (1814, p. 201) differentiates in his *"Doctrine of Education"* between the "subject in which instruction is given" (p. 200; emphasis added), which is the transmission as pure or special didactics (methods) and "character formation (education)" (p. 201), as the more comprehensive or general didactics, focusing on the "human psyche" (p. 203) – concerning the *relation* between *world orientations* and *relationships*. An understanding of *well-being* from a literate viewpoint thus solely refers to the promotion of mediating competencies. *Being literary* entails a deeper understanding of *well-being* from an *intentional* perspective while maintaining a comprehensive view of the overall context and the interrelated elements. However, Herbart (1814, p. 202) elaborates further and more profoundly: "Above all, I demand from the educator that he orients himself most carefully in this distinction [... – in his world orientations]. Whoever does not do this may be an excellent empiricist, but in my eyes, he is not a theorist." The pedagogical (relationship) situation, according to Heimann (1947, p. 60), is based on an "interpersonal encounter," which represents a "primal phenomenon" and can lead to an "interpersonal relationship" (p. 61), particularly concerning *well-being*. Especially the word "situation [...] is in this context a very sober word for a highly complex interpersonal state, in which not only a series of intellectual processes take place but also a certain affectivity [...] is lived out" (p. 67). Therefore, Heimann (1961), p. 136) specifically emphasizes the difference between "creative work" (through technical skills and both transmitting and mediating competencies) and "life design" (through literacies, capabilities, and abilities).

Therefore, the idea of the Didactic Triangle can be found in the model of *Theme-Centered Interaction* (TCI) according to *Ruth Charlotte Cohn* (1912–2010), whereby two essential questions from the teacher to the students are to be asked (1975): "What are my possibilities and limitations and what are our possibilities and limitations." At the same time, two essential questions towards the theme and content from the teacher are: *What are my possibilities and limitations in relation to the theme (topic)* and *What is the significance and impact of the theme on me.* Both directions from the teacher are not only interesting but essential in relation to the teacher's wellbeing. Additionally, the *globe* (as circle) is added to the triangle and points to all moments and structures that are found beneath and behind the visible *Me-We-Topic Triangle*, such as values, trust, desires, taboos, and more. Once the various ideas are combined, a different understanding of the Didactic Triangle emerges, and the respective *intentionality* in relation to *well-being* becomes more apparent (see Figure 4 and the resulting implications).

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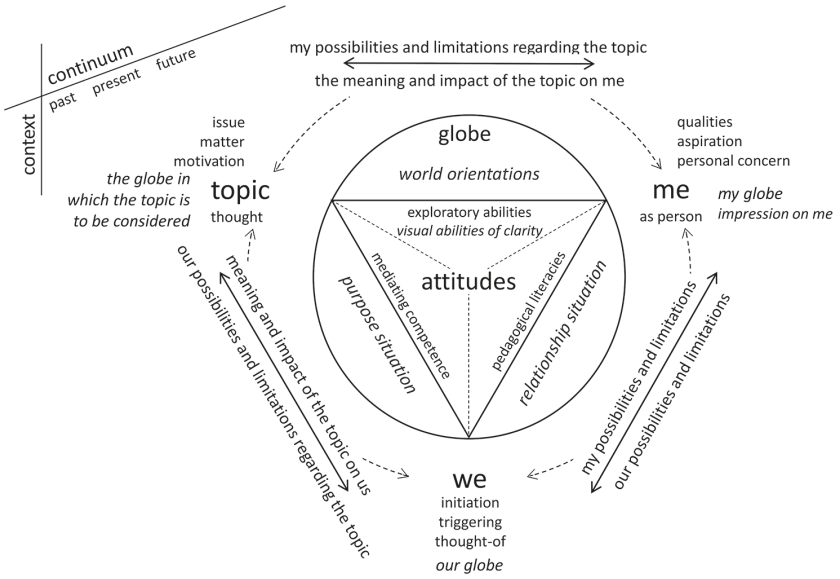

Figure 4: The Didactic Triangle as a gestalt of teaching and as an impactful figure (in reference to Wiesner & Brandhofer, 2024; self-drawn)

Learner's view and orient themselves in relation to the world *through the eyes and senses of educators* when the relationship with each other and the exploration of the world take precedence (from us to me and together to the topics of the world). However, if the focus is solely on transmission and instruction, the world is conceptually passed on to learners only through content (from the topics to us, the we-learners). Depending on one's way of thinking, this also leads to vastly different theoretical assumptions in relation to well-being. Here are some *insights* from the *focus groups* (teachers) of the T2B project in relation to what has been said theoretically so far (for more on this and other theoretical ideas, see the paper *Teachers' Experiences of Communication Practices with students, colleagues, parents, and school collective that shape their professional well-being* – currently in preparation by Dörfler et al.):

Being aware (in the Spirit of the Idea of Psychoanalysis)

> *We can't go back to the teacher we had 30 years ago. Our teaching profession has changed so much that we are now very much involved in teaching, caring, and nurturing, and not just in mediating knowledge.* (reference: focus group 1/S5)

doi.org/10.35468/6091-07

And if they observe from us what it's like to be empathetic and experience empathy, then perhaps they can achieve it themselves. I'm reflecting on why this is so important. But I think it simply allows for better teaching for some reason. (reference: focus group 2/S3)

Shaping a community (in the Spirit of the Idea of Individual Psychology)

As a teacher, one of the most important things is to be empathetic, because nowadays, it's essential to be able to put oneself in the students' shoes. Especially today, it's important to empathize with others. We expect children to be empathetic as well. Then, we must be able to demonstrate this ourselves. (reference: focus group 2/S5)

I think one of the most important things is to build a relationship with the learners, because then you can reach them more easily and understand them much better. (reference: focus group 3/S4)

Being responsible (in the Spirit of the Idea of Individual Psychology, Logotherapy, and Existential Analysis)

I believe that we also have a responsibility to combine our intellect and character. And as Frankl says: 'Under the hammer blows of fate and in the white heat of life, character is formed,' and we are somehow also called upon to prove this. (reference: focus group 1/S5)

You need to empathize with learners. It's not about just doing your own thing regardless of the consequences. You also have to resolve conflicts. (reference: focus group 3/S2)

Finding meaning (in the Spirit of the Idea of Logotherapy and Existential Analysis)

Feeling the efficacy is more important than mere perspectives, because I believe that sensing this efficacy is something essential for the profession. I think there are two things. One is the joy of doing […], and the other is being able to realize one's visions of life. (reference: focus group 3/S5)

This means that I have to love my job, in a sense, what I do. It has to have a meaning. Love fits in here because then I am a balanced person, having a worldview and inner peace. (reference: focus group 3/S5)

Returning to all the ideas previously introduced, the distinctively Austrian perspective, incorporating *intentionality* and emphasizing *awareness*, *responsibility*, *community*, and *meaning-making* within a Platonic framework (as *literacies*) represented by the Didactic Triangle in Herbart's philosophy, offers fresh and alternative approaches to well-being. These approaches can be further developed in an upcoming future project and are underpinned by a comprehensive and extensive theoretical foundation. Essential for teacher education is also the model of the Didactic Triangle as a memorable and *impactful figure*.

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5 Outlook in the sense of a conclusion

The unfolding of well-being

Before the introduction of the concept of paradigms and the multiple theoretical perspectives by Fleck (1935a, 1935b) and Kuhn (1969), it was mostly common to only compare the various interpretations of theoretical concepts, wrote Lindenberg & Wippler (1978b, 1978a). We have not clearly seen until then the relations shaped by intentionality, and their analysis and structure are phenomenologically more fruitful than the quest for a correct definition of something or the mere search for mediating aspects. The focus is no longer solely on *the* definition of a concept in a theory from *one* perspective, but rather on the *possible* perspectives and understanding the meanings of an idea from *multiple viewpoints*. So, it's also about becoming aware of concepts and conceptions.

Sir Arthur Stanley Eddington (1882–1944) demonstrated in 1939 in an anthology his understanding of science through the story of the Ichthyologist, "a fish scientist", who as a researcher explores life in the ocean and acquires his knowledge only through the specific (scientific) "*net*" cast into the water: The ichthyologist "casts a net into the water and brings up a fishy assortment. Surveying his catch, he proceeds in the usual manner of a scientist to systematize what it reveals" (p. 16). As long as the net's form remains unchanged, the data found (here fish of a certain size) remains the same, no matter how often the catch is repeated. The "casting of the net corresponds to observation," as Eddington (1939, p. 16) said, and "[a]nything uncatchable by my net is ipso facto outside the scope of ichthyological knowledge and is not part of the kingdom of fishes which has been defined as the theme of ichthyological knowledge. In short, what my net can't catch isn't fish."

In applying this analogy, the catch stands for the body of knowledge which constitutes science, and the net for the sensory and intellectual equipment which we use in obtaining it. To translate the analogy: It is often important to reconsider findings and add new, different ideas. Naturally, the generalizations of the Ichthyologist in this story are valid within his theoretical approach as a net and yet, "the selection is subjective, because it depends on the sensory and intellectual equipment which is our means of acquiring observational knowledge" (Eddington, 1939, p. 16).

Setting aside the analogy, if observation as the *initial basic foundation* of science already offers a variety of ways of understanding, then abstract concepts and terms open up many perspectives. Well-being is an abstract concept that, to make it more approachable for teacher education, should begin with the forms of intentionality to bring them into *awareness*, emphasize *personal responsibility*, and underscore the significance of *meaning-making* in the context of teaching – and as a shaping of *community*. What we capture in the *net of science* depends on the kind of web we design and cast. Building on Gabler's (2004) insights, it becomes evident that *well-being* encompasses a multitude of *diverse* aspects, interconnecting

doi.org/10.35468/6091-07

competencies, *abilities*, and *literacies*. Well-being is an abstract concept, takes shape as a gestalt where one must recognize and observe the richness of influencing moments (*literacies*) and the respective manifestation of *directedness* that moulds well-being.

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Teachers worldwide experience significant stress and burnout, impacting their health and the education systems. Recognizing the importance of social, prosocial, and emotional skills in education adds to this complexity. The European Policy Experimentation Project Teaching to Be (2021-2024) in Austria, Italy, Latvia, Lithuania, Norway, Portugal, Slovenia, and Spain, aimed to improve teacher wellbeing through innovative professional development. A digital game-based Online Wellbeing Course and a Teacher's Handbook were developed in the project to enhance various aspects of teachers' professional wellbeing and organizational health. Using a mixed-methods research approach, it evaluated digital interventions on wellbeing, leading to tailored policy recommendations for enhancing teacher professional development and mental health.

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