

**Understanding general pedagogical knowledge influences on sustainable teacher
wellbeing:**

A qualitative exploratory study

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Abstract

This qualitative reconstructive study aimed to explore teacher general pedagogical knowledge and professional wellbeing. The informants were a convenience sample of 18 teachers from Austrian primary schools (n=5), lower secondary schools (n=7) and upper secondary schools (n=6) (female= 10, male= 8, mean years of service = 15.8, SD = 12.2 years). We interviewed the teachers on their general pedagogical practices knowledge (supportive, personal, interactive and structural), and their sense of professional wellbeing. Inductive thematic analysis findings indicated the teachers to value pedagogical knowledge on supporting student learning intuitively, and *engagement* with students and the learning process, The teachers also prioritized personal-interactive pedagogical knowledge about communicating effectively and *relationships* with students, parents and fellow teachers. Their structural knowledge was represented in their sense of *accomplishment* in terms of mastering education

technology. The teachers perceived their general pedagogical knowledge competencies to provide for sustainable sense of emotional wellbeing and work role *meaning*. We conclude from these findings that teacher pedagogical knowledge is important for accomplishing both quality education and professional wellbeing of teachers.

Keywords

Teacher wellbeing, general pedagogical knowledge, PERMA, SDG4, SDG3, wellbeing, quality education, sustainable development goals

Introduction

Teachers are pivotal change agents providing education for sustainable development. In that regard, both the professional knowledge of teachers, as well as their psychological wellbeing are crucial to the attainment of sustainable development goals (United Nations, 2020a, 2020b). The Sustainable Development Goals (SDGs) of the United Nations encompass actions “for people, planet and prosperity to strengthen universal peace” (United Nations, 2015: 1). Attainment of the SDGs would end extreme poverty, promoting health and wellbeing for all. For instance, the UN sustainable development goal 3 states to “Ensure healthy lives and promote “well-being for all at all ages” (SDG 3; United Nations, 2020a:1). The UN sustainable development goal 4 is providing for “inclusive and equitable quality education and ...lifelong learning opportunities for all” (SDG4, United Nations, 2020c). As noted previously, teachers are primary agents for the attainment of these goals utilizing their general pedagogical knowledge* for wellbeing. Yet, studies on teacher pedagogical knowledge and professional wellbeing are underrepresented in the scholarly literature. The

objective of the study is to explore the ways by which teachers understand their general pedagogical knowledge in relationship to their sense of professional wellbeing.

Teacher pedagogical knowledge and wellbeing. Teachers rely on their general pedagogical knowledge to negotiate complex learning environments on a daily basis (Guerriero, 2017; Gitomer & Bell, 2016). General pedagogical knowledge refers to resource-oriented supportive, personal, interactive and structural dimensions of classroom teaching (Dittrich, 2020). Teacher general pedagogical knowledge consists of four different forms: personal knowledge, organisational and structural knowledge, interactive knowledge, and resource-oriented, supportive knowledge (Voss et al., 2001; König et al., 2011; Kunter et al., 2017; Dittrich, 2020). Resource-oriented, supportive knowledge is important for providing learners the help they need to achieve to potential. Organisational and structural knowledge helps teachers with their classroom management as well as management of knowledge systems. Interactive knowledge, in turn, consists of knowledge about education, relation, communication, group dynamics, cooperation, teaching and learning.

Teacher wellbeing refers to the physical, emotional, social, psychological, spiritual and cognitive health in instructional roles (Seligman, 2018). Physical and psychological wellbeing are important to sustainable mental health, for negotiating life stressors. Cognitive wellbeing is associated with rational thinking and optimal problem-solving abilities (Eloff, 2021; Frederickson, 2006; MacIntyre, Ross, Talbot, Mercer, Gregersen T. and Banga, 2019; Seligman, 2018;)

Optimal teacher wellbeing improves school quality and effectiveness (Ferguson, 2008; Hume, 2017). For instance, teacher wellbeing is associated with the wellbeing of the children in their classroom in that it promotes in students feelings of belonging, respect and trust, increasing their school engagement (Roffey, 2012; Kern et al. 2015). MacIntyre et al. (2019)

utilise the positive emotion, engagement, relationships, meaning and accomplishment (PERMA) framework to understand teacher wellbeing.

Positive emotions refer to hedonic feelings of happiness, comfort and pleasure. *Engagement* refers to in-depth psychological connection to activities, a cause or organisations. *Positive relationships* include feeling socially integrated, connected, supported by others, being in a caring environment and satisfied with one's social connections. *Meaning* refers to having a sense of purpose, believing that one's life is valuable and having a sense of being connected to something greater than oneself. *Accomplishment* involves making progress towards goals, feeling capable to perform daily activities, and experiencing a personal sense of accomplishment, and satisfaction (Khaw & Kern, 2015).

Goal of the study

We aimed to qualitatively explore the ways teachers understood their sustainable wellbeing based on their general pedagogical knowledge. Our specific research question was:

How does teacher wellbeing manifest in teachers' discussions of general pedagogical knowledge?

Method

Research design

We adopted a qualitative reconstructive approach to explore teachers' everyday wellbeing from their general pedagogical knowledge. A qualitative reconstructive approach reconstructs social phenomena by tracing collective understandings in populations (Lamneck, 2010). It is a suitable research strategy for exploring sustainable wellbeing in education contexts (Scheunpflug, Krogull & Franz, 2016). Specifically, the qualitative reconstructive approach is

appropriate for exploration of teacher's general pedagogical knowledge, and qualitative markers of teacher wellbeing.

Participants and procedure

Informants were a convenience sample of 18 teachers from Tyrol, Austria (female = 55%; primary school: n=5, lower secondary schools: n=7 and upper secondary schools: n=6). The teachers' ages ranged from 20 to 63 years and their work experience from 2 to 45 years (Mean years of service age = 15.8, SD=12.2 years). They were teaching of Mathematics (n=3), Language (n=3), Sport (n=2), History (n=2), Biology (n=2), Geography (n=3) and Arts (n=3).

Data collection

Participants completed semi-structured interviews to share on their 1) understandings of general pedagogical knowledge for teaching and learning, 2) direct use of strategies in the classroom, as well as their challenges and difficulties in facilitating learning, and 3) sense of professional wellbeing. The second listed author conducted the interviews in German, the first language of the teachers, with audio-recording for transcription.

For trustworthiness of the data, we implemented an audit trail of key decisions in the research process and peer-debriefings with a senior researcher, who is familiar with the research context. We achieved credibility with the study participants via prolonged engagement with them over a period of two years, concurrent classroom observations, and debriefing sessions after each interview.

Procedure

The head of the school granted permission for the study. The teachers consented to the study. The teachers completed the interviews during normal school hours. Audio recordings were transcribed by the second listed author and electronically translated into English and then back-translated into German by two bilingual educators. This was done to check the accuracy of the translations and to ensure their validity and authenticity.

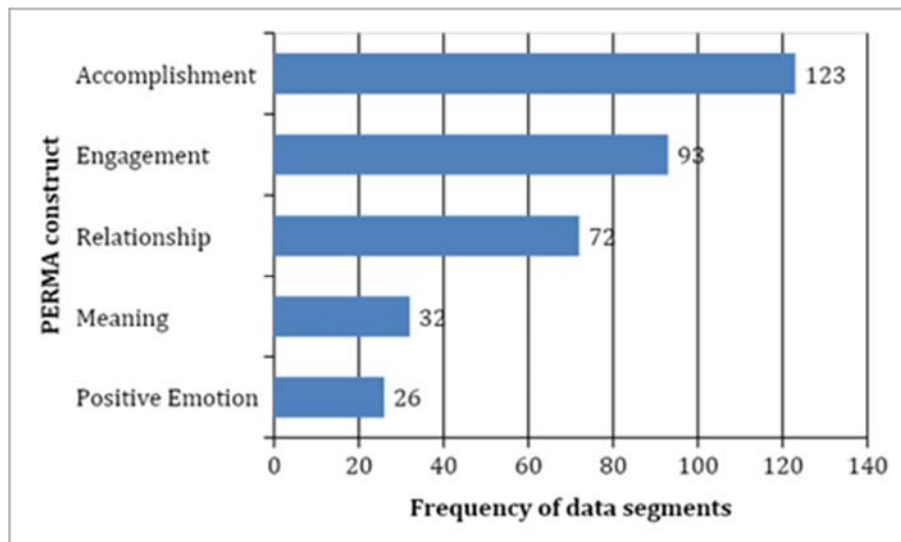
Data analysis

To explore the wellbeing of the teachers from their general pedagogical knowledge, we analysed the interview data using MAXQDA, a computer-supported data analysis program. The program analyses qualitative data in terms of units of meanings and phrases, rather than word counts. For dependability and confirmability of the analysis, we utilized inductive content analysis (Miles, Huberman & Saldaña, 2020) to screen the data set for instances of teacher wellbeing following the PERMA framework (Seligman, 2018; MacIntyre et al. 2019).

Findings and discussion

Three themes emerged strongly from the data analysis: *accomplishment* of pedagogical tasks, *engagement* with students and the learning process, and *relationships* with students, fellow teachers and parents. Professional wellbeing were also presented in terms of *positive emotions* and work role *meaning* (see Figure 1).

Figure 1: Frequency of PERMA constructs in GPK data according to number of data segments (units of meaning)



Theme 1. Accomplishment of pedagogical tasks

In the interviews, ‘accomplishment’ is the construct that is presented most frequently within discussions of general pedagogical knowledge. Teachers described their accomplishment both in terms of successful mastering of general pedagogical knowledge, and in terms of their broader accomplishments as teachers. Teachers in our study frequently mentioned the necessity of accomplishment and argued: *“If the teacher knows what he is doing, the class listens to him, that what is actually planned really works as you imagined it to”* (Teacher 5, female, 30). For this, teachers explained specific forms of knowledge how they accomplished teaching and learning in their classroom. For example, the teachers said it is important that they are knowledgeable in a wide variety of fields and that they can utilise pedagogical strategies intuitively at the right moment. *“[...] that I know I'm armed, I can do that with my knowledge, with my experience and not that I feel I'm completely alone.”* (Teacher 1, female, 26). Other teachers explain in detail why a specific form of knowledge is relevant: *“When I don't have knowledge about classroom-management, I cannot lead a class, I don't know what happens, I*

cannot support learning, neither guarantee a sufficient teaching” (Teacher 3, male, 29), or “We live in a technology time, so we have to know strategies how we can use technology in the classroom as well as we teach skills which students can use out of the classroom” (Teacher 5, female, 30) or “Communication is the key for a good teaching. I have to communicate what I expect and should also know different theories and forms of communication: How it influences my teaching, or as well students learning” (Teacher 6, male, 31).

However, the teachers also experienced uncertainties in terms of their own learning experiences and accomplishments over time, as is clear from comments like: *“In the education it was rather bad. Because in the training of the AHS in my times, where it has purely theoretically three practice hours. Then you realize right away that you didn't learn anything at all at university. Of course a book, no author can tell you now, and that by reading, that helped me zero.”* (Teacher 4, female, 42).

These findings underscore *accomplishment* as a critical element of teacher pedagogical knowledge for professional wellbeing. Owen (2016) highlighted the benefits for teacher pedagogical knowledge to schools and education systems. Tang (2018) also emphasises the importance of pedagogical knowledge for teacher sense of ‘accomplishment’ when planning interventions for teacher wellbeing.

Theme 2. Engagement with students and the learning process

‘Engagement’ also emerged as a dominant theme of teacher wellbeing. For the teachers in this study, ‘engagement’ manifested mostly as a personal connection with students in the moments of learning. It also related to engagement with the learning process itself on a more abstract level. Teachers specifically emphasised how engagement correlates with a professional and life-long learning process: *“I like working with children. To support them and to see how they develop it is a great feeling for a teacher”* (Teacher 1, female, 26). The knowledge of self-

reflection of teachers plays a crucial role for the development of engagement “*Training in personal pedagogy. Simply to look at myself as a person, what do I bring with me as a person into the lessons, what does it look like ...*” (Teacher 2, female, 45). They mention also the passion for their subject, they expand their knowledge of it, and they try out new and innovative, didactic concepts as they take responsibility for their own professional knowledge, “*And the professional level is that I still have to fulfil my duty. I still do what has to be done. There, the ideas often diverge and it would be ideal if you found a common consent. I would say that the professional provides the framework. I am a pedagogue and teach German, that is my professional knowledge and I implement that with different tricks or “not” tricks. How do I prepare it pedagogically? Prerequisite is the subject knowledge to be able to work*” (Teacher 7, male, 63).

Teachers pointed out during the interviews how they engage students based on the students’ “*strengths and weaknesses ...ethical and cultural backgrounds...language differences, class differences, gender issues, and so on*”. (Teacher 6, male, 31). They also indicated the importance of clarifying the teacher’s engagement priorities: “*It is always important to put one’s own needs aside in the classroom, because it is about the class and not about yourself. And I know that a lot of teachers are “Alphatierchen” [A-type personalities] and that is just not reasonable anymore these days. Teachers have to work much more closely together and not only the German teachers, but also across subject disciplines, that the school works and the children are doing well*” (Teacher 10, female, 29). In addition, one teacher argued that engagement can only work if less “*focused on didactics. [and] the student is the focus, [helping to] to solve problems between the students, how [students]interact with each other, with what tone they talk to each other and how they approach tasks together*” (Teacher 5, female, 30).

The teachers note the importance of close collaboration with parents and colleagues for sustainable student engagement: *“Developing learning together with parents is a very exciting process. We learn from each other here and can support the children in the best possible way through different perspectives and experiences”* (Teacher 18, female, 41).

Increasing student engagement is an important task of teachers (McKenna, Cacciattolo, & Vicars, 2013). It has been a focus in fields such as social justice and equity work (Osanloo & Boske, 2015) and music (Dillon, 2007), and more recently in learning within knowledge societies (Erstadt, 2016).

Theme 3. Relationships with students, fellow teachers and parents

The teachers considered ‘relationships’ with students, fellow teachers and parents important. For example, one teacher said: *“Learning and teaching works only with relationships”* (Teacher 18, female, 41). Another noted: *“For me, the relationship level is the most important. [although] you are never always on the same level.”* (Teacher 8, female, 43). Other teacher considered relationships as about *“How to deal with each other, what is an appreciative relationship, what is a respectful relationship, that the teacher is not above the students, but that everything is on one level”* (Teacher 1, female, 26).

“How to develop a good atmosphere for teachers, create team-building processes and platforms where they can share ideas and knowledge and also to know how to lead a school” (Teacher 11, female, 23); and *“the interpersonal level,...[spending] time with the pupils and ...also perhaps [talking] to the parents [for] solution suggestions.”* (Teacher 10, female, 29)

Teachers in this study argued that *“relationships are the key for learning“* (Teacher 1, female, 26), because teaching, *“happens on an interpersonal level. ...without the personal teacher-student relationship [pedagogical knowledge] doesn't work”* (Teacher 9, male, 31).

Evans, Butterworth and Law (2019) have argued for relationship-focused reflective practice in teacher education for managing relational conflict. Strengthening relationships may also relate to teachers' efficacy, since it has been well established that interactions between efficacy beliefs and learning to teach positively, predict the motivational force of teachers (Eren & Yesilbursa, 2019). A study by Mpofo, Ntinda & Ntinda (2015) has specifically indicated teacher-led student support as an important quality indicator in teaching and learning.

Theme 4. Meaning and positive emotion

Teachers linked their general pedagogical knowledge to sustainable learner wellbeing: *“knowledge of how to value something, whether and how to believe things and how not to believe them, or how to assess them correctly. For this teachers need a professional self-awareness.”* (Teacher 6, male, 31), *“The children need affection and confirmation. The students are happy about that, they like to come to the lessons. Of course you can't just praise them, but I think that's what the children need”* (Teacher 4, female, 42). They talked about the importance of their personal professional sense of wellbeing from their general pedagogical competencies: *“Yes, I'm currently working on myself and trying it out again and again and I'm always positively surprised”* (Teacher 1, female, 26), and sense of work role meaning *“Of course, clearly the teacher must also be satisfied. It will never be the case that the students are satisfied and that good teaching takes place and that the teacher is all set and done”* (Teacher 6, male, 31). They mentioned the importance of positive emotions, *“Then I also believe a lot of optimism. ...you simply see things in a positive light again and don't let yourself be demotivated by events or frustrations”* (Teacher 2, female, 45), and *“... when I go into a class and don't take such negative moods with me and motivate them in one direction”* (Teacher 2, female, 45), and *[with] respectful treatment of the students, the students respond”* (Teacher 9, male, 31).

Positive emotion (Fredrickson, 2006) and emotional intelligence in teachers (Vesely, Saklofske, & Nordstokke, 2014) have been closely linked to teacher efficacy and optimal learning before. Meaning is a construct that spans many life roles (Schnell, 2010; Schnell & Becker, 2006).

Our study findings indicated sustainable teacher wellbeing to relate to their general pedagogical knowledge through accomplishment, learner engagement and relationships for learner support.

There is a clear need for the strengthening general pedagogical knowledge of teachers for teacher wellbeing consistent with the SDG 3 on Health and Wellbeing, as well as SDG 4 on Quality education. In this regard, teacher wellbeing and general pedagogical knowledge would enhance the attainment of Sustainable Development Goals aimed to improve health and education outcomes, with longer term benefits to preserve our environment, reduce inequalities and supporting economic growth.

Limitations of the study and conclusion

Limitations of our study include the following. First, data was collected from only one region within a European union context. This would restrict the confirmability of findings in other parts of the European union. Second, this was a small exploratory study based on a few aspects of teacher wellbeing and general pedagogical knowledge. We recommend a large sample survey study utilizing validated measures to replicate and extend the findings from this study. We conclude from the study that the sustainable wellbeing of teachers manifests most prominently in terms of their general pedagogical knowledge competencies of accomplishments, engagement, and relationships.

Footnote:

* The study investigated wellbeing in terms of ‘general pedagogical knowledge’ (GPK), which is a well-established term in education literature. For the purpose of this article, the term ‘pedagogical knowledge’ was used predominantly.

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