



# Reflective Practice

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## Using self-reflection to support higher education teaching

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### ABSTRACT

Seeking ways to support the work of higher education teachers is important. One of the tools that can be used to support teachers' work is the promotion of reflection. Thus, the current study aimed to explore higher education teachers support opportunities provided by self-reflection. In the study, Finnish higher education teacher educators ( $N=20$ ) reflected their teaching by using a research-based self-reflection tool HowUTeach, which consists of items measuring teaching processes and well-being. The teachers responded to the items and then received feedback based on their responses. The teachers then participated in group interviews, which form the data for the present study. Thematic analysis of the interviews focused on teachers' experiences of the self-reflection and aimed to identify support opportunities the self-reflection and feedback may offer for teachers. Based on the findings, the teachers (1) experienced an enhancement and enrichment of self-reflection, (2) were expecting a more situation-specific approach to self-reflection, and (3) noted support opportunities through the deepening of reflection during collegial interaction. The study highlights that in order to support higher education teachers by promoting self-reflection, it is also crucial to provide teachers with opportunities for dialogical reflection.

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### KEYWORDS

Self-reflection; reflective practice; higher education; approaches to teaching; well-being

## Introduction

It has long been known that reflective thinking is important for teachers' learning (e.g. Rodgers, 2002). Reflection refers to an inspection of one's thoughts, ideas, and beliefs, through which something can be revealed about them (Swain, 1998). For professional development to occur, it is important to promote systematic reflection and understand what it consists of (Nel, 2021; Rodgers, 2002; Ulusoy, 2016). Husu et al. (2008) argue that concrete methods are needed for reflection to promote teacher development and teachers' awareness of important aspects influencing their work. It has been suggested that self-evaluation tools can be utilised to support teachers' reflection on teaching, especially if teachers receive constructive and useful feedback through the self-evaluation (Biencinto et al., 2021). Previous research in the higher education (HE) context has

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shown that teachers' awareness of their teaching processes is important for their pedagogical development (Ilie et al., 2024; Postareff & Lindblom-Ylänne, 2008).

The present study utilises a research-based self-reflection tool HowUTeach, designed for HE teachers (also referred to as lecturers in other contexts), to promote teaching-related reflection. Specifically, the aim of the study is to examine teachers' experiences of the self-reflection aiming to support their teaching processes and teaching-related well-being, which have been shown to be positively related to each other (Postareff et al., 2023). The research question is as follows: How do the teachers experience the use of the research-based self-reflection tool as a support for their teaching and well-being?

## Meaning of reflection in teaching and pedagogical development

Previous research emphasises the role of reflection in developing teachers' knowledge and practices. Reflection is considered an important part of teacher development because when thinking carefully about their teaching and experiences, teachers can identify different aspects of the teaching situation and gain greater awareness of their choices (Husu et al., 2008). Based on Dewey's ideas, Rodgers (2002) suggests that reflection is a systematic process that provides a deeper understanding of different experiences and their relationships. Schön (1987) also built on Dewey's ideas and drew a distinction between 'reflection-on-action' and 'reflection-in-action'. According to Schön (1987), reflection-on-action refers to thinking about a problem or issue before and/or after teaching, whereas reflection-in-action refers to thinking that occurs during the teaching process itself and is much more complicated. Previous research on primary and secondary education teachers showed that the use of self-evaluation and feedback was useful, not only for increasing teachers' pedagogical knowledge but also promoting changes in their teaching practices (Biencinto et al., 2021). Research on the pedagogical reflection of general education teachers showed that reflection is seen as a moral and habitual activity closely linked to practical situations, which should be promoted systematically (Birmingham, 2023).

The definition by Rodgers (2002) highlights the role of interaction with others in reflection, preferably with more experienced facilitators in a safe environment (see Kirkman & Brownhill, 2020). Similarly, Husu et al. (2008) suggest that in order for the reflection to be effective, external support and dialogue are needed. Social aspects of reflection, such as peer support and feedback, have been shown to be important for university teachers' learning and development (e.g. Pekkarinen & Hirsto, 2017), and it is important that opportunities for collegial support are created in university communities (Myllykoski-Laine et al., 2022). An atmosphere of support and collegiality has been found to support the development of reflective practice (Kelley et al., 2022; Kurtts & Levin, 2000).

## Teaching processes and teaching-related well-being

In the HE context, research has focused on teachers' approaches to teaching, which refer to the types of teaching processes teachers adopt (Ilie et al., 2024; Mladenovici & Ilie, 2023; Postareff & Lindblom-Ylänne, 2008; Trigwell & Prosser, 2004) and thus mirror their pedagogical awareness. In a learning-focused approach to teaching, teachers invest in teacher – student and student – student interactions to activate students' own thinking,

which is often associated with teachers' reflection on their own teaching (Postareff & Lindblom-Ylänne, 2008; Postareff et al., 2023). In the content-focused teaching the teachers may not be able to reflect their teaching profoundly, and thus, lack pedagogical awareness (Postareff & Lindblom-Ylänne, 2008). Recent studies have shown that approaches to teaching consist of different dimensions: level of interaction, information transmission, reflection, and organisation in teachers' own teaching (Parpala & Postareff, 2021; Postareff & Lindblom-Ylänne, 2008; Postareff et al., 2023). Especially an inability to reflect student learning and own teaching have shown to be related to teachers' weaker beliefs in their competence as teachers (Postareff et al., 2023).

Research on HE teachers' well-being have mainly focused on stress, burnout, and emotions (e.g. Mula-Falcón et al., 2022; Salimzadeh et al., 2017) and also more positive approaches would be beneficial. In the present study, well-being is approached through two positive dimensions, namely self-compassion and self-efficacy, and one negative dimension, namely self-criticism. Although well-being is a multidimensional concept, in the present study we refer to teacher well-being through these three dimensions. Self-efficacy refers to an individual's belief in their own competence to perform in a necessary way to reach specific goals or complete tasks successfully (Bandura, 1997). When applied to the teaching context, teachers' self-efficacy refers to 'an individual teacher's beliefs in their own ability to plan, organise, and carry out activities that are required to attain given educational goals' (Skaalvik & Skaalvik, 2010). Teacher self-efficacy has been shown to be related to teachers' well-being (Aloe et al., 2014). Furthermore, teachers with high self-efficacy also apply more student-focused approaches to teaching (Zee & Koomen, 2016). There is also some evidence indicating that self-reflection predicts self-efficacy (Yin et al., 2023).

Self-compassion refers to an orientation to care for oneself and being understanding towards oneself instead of being overly self-critical (Neff, 2003), and it has been shown to contribute positively to well-being (Bluth & Neff, 2018). Interestingly, self-reflection has been shown to predict self-compassion but through integrated self-knowledge, which requires understanding of how to reach goals and consideration of past experiences (Viskovich & De George-Walker, 2019). Self-criticism, on the other hand, can be defined as a process of negative self-evaluation and harsh self-judgement (López et al., 2015; Neff, 2003), which have been identified to be connected to burn-out and depression (Neff & Germer, 2017). Promoting teachers' self-reflection might also promote more compassionate attitude towards oneself and raise awareness and diminish the harmful ways of facing difficulties.

## **Material and methods**

### ***Data and participants***

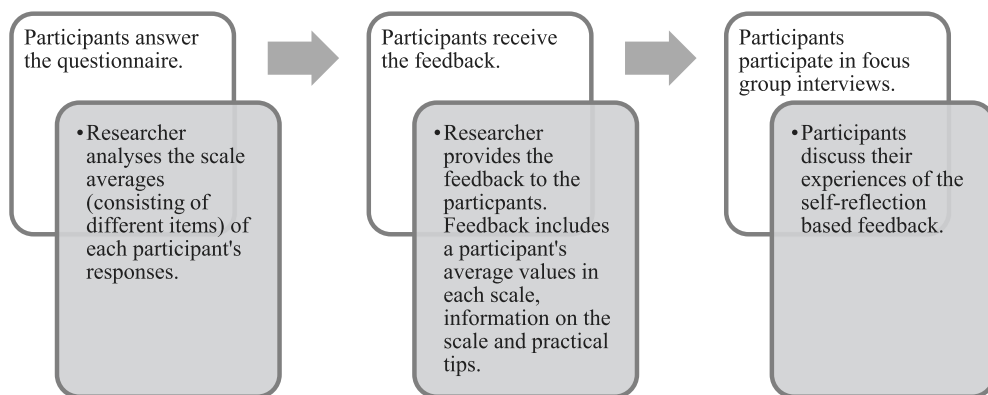
The data consist of thematic focus group interviews ( $N = 7$ ) of HE teacher educators ( $N = 20$ ). The participants were contacted by utilising email lists of departments or units to deliver an invitation to participate in the study. However, only a few teachers responded to the invitation. Thus, most of the teachers were contacted directly through personal contacts. For example, the heads of departments were contacted, who then asked members of their own staff who would be interested in joining the interviews.

Participants were informed about the study aims, voluntariness, utilisation of data and data privacy issues. Research consent was obtained from all participants.

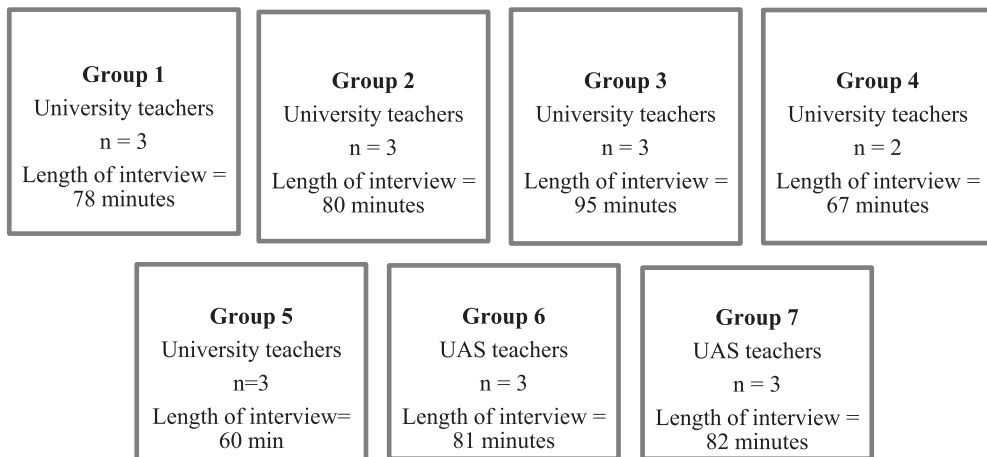
Before the focus group interviews, the participants answered the self-reflection tool HowUTeach (Parpala & Postareff, 2021), which has been designed for teachers in HE. The tool consists of Likert-scale items measuring teachers' approaches to teaching and their well-being and related feedback, which is provided after answering the items to promote self-reflection. In its present state the tool serves more reflection-on-action than reflection-in-action (Schön, 1987) as teachers are asked to reflect the items in general. In the present study, two parts from the HowUTeach were used: HE teachers' approaches to teaching (HEAT) and teaching-related self-efficacy-beliefs, both of which have been validated among HE teachers (Postareff et al., 2023). In addition, a shortened inventory measuring self-compassion and self-criticism (López et al., 2015; Neff, 2003) were included in the self-reflection, as previous research has highlighted their importance to teachers' well-being (Postareff & Lindblom-Ylänne, 2008). The participants answered the inventory from the perspective of increased distance teaching.

The feedback included descriptions of the different dimensions of the inventory and their importance in teachers' work (e.g. 'Self-efficacy beliefs mean the belief about whether the teacher is able to do their job well and influence the students' learning ...'). Moreover, the feedback provided suggestions about how these elements could be further developed (e.g. 'Remember that the belief in self-efficacy is not a permanent trait. It is possible to influence self-efficacy beliefs, for example through reflection, discussion, and learning...'). The feedback also included numerical scores to show how high the teachers scored on each scale. Thus, the idea is to support the teacher's awareness of the types of dimensions that are prominent in their own teaching and how these dimensions have been defined in previous research (Parpala & Postareff, 2021). As the original version of the HowUTeach did not include feedback concerning self-compassion and self-criticism, this was created by a pedagogical expert for the purposes of the present study.

The teachers participated in focus group interviews after receiving the feedback. The interviews focused on teachers' experiences of the self-reflection and feedback. The items and scales (Appendix 1) utilised in the present study and the interview questions related to the use of the self-reflection (Appendix 2) can be found in the Appendices. [Figure 1](#)



**Figure 1.** Data gathering process.



**Figure 2.** Information on the focus groups.

illustrates the data gathering process. The interviews lasted approximately 80 minutes on average, and they were transcribed verbatim.

The teachers in the study worked as teacher educators in three universities ( $n = 14$ ) and one university of applied sciences (UAS;  $n = 6$ ) in Finland. University teachers worked mainly as educators for basic degree students studying to be primary school teachers. UAS teachers worked as educators in adult education programmes for students acquiring their qualification in vocational teacher education, special education, or student counselling. All participants had a formal teacher's pedagogical qualification. The majority of the participants had been working in the field of HE for more than 15 years (ranging from 1 to 27 years; on average 11 years). [Figure 2](#) includes information on the focus groups.

On average, the teachers reported high values related to interactive and organised approaches to teaching and low values related to transmissive and unreflective approaches to teaching. In addition, they reported high values related to teaching-related self-efficacy beliefs and self-compassion and low values in relation to self-criticism. The reported values for self-criticism exhibited the most variation among the participants and also included some high values. [Table 1](#) presents the statistics of the sum variables based on the items in the HowUTeach questionnaire. The statistics information is provided only to show how the teachers responded on average to the dimensions of the HowUTeach tool, because this information could be important to understand the results of the group interviews, where the teachers discussed about their own results and the feedback they received.

**Table 1.** Statistics of the sum variables.

		Mean	SD	Minimum	Maximum
Approaches to teaching	Interactive	4,35	0,54	3,00	5,00
	Transmissive	2,12	0,67	1,00	3,33
	Unreflective	1,77	0,53	1,00	2,67
	Organised	4,12	0,40	3,00	5,00
Well-being	Self-efficacy beliefs	4,53	0,44	3,75	5,00
	Self-criticism	2,22	0,89	1,00	4,00
	Self-compassion	4,22	0,42	3,67	5,00

$N = 20$ . The participants answered the individual items on a scale: 1 = totally disagree, 3 = in between, 5 = totally agree.

## **Analysis**

Thematic analysis was utilised in the analysis of the teachers' experiences focusing on 'capturing something important about the data in relation to the research question' (Braun & Clarke, 2006, p. 82). The focus was on identifying the teachers' experiences of the use of the self-reflection related to their teaching processes and well-being. During the analysis, experiences of the different dimensions of the self-reflection were not inspected separately. Rather, the aim was to identify meaningful experiences related to the self-reflection in general. The interview data were first read several times for familiarisation. While reading through the data, data extracts related to the research question (Braun & Clarke, 2006) were identified in the data set and coded under different themes. Notes were written down during the analysis to aid in the identification of recurring themes. In the first phase of analysis there were many themes, including positive experiences and critical experiences of the self-reflection. Some of the identified themes were combined, as it was noted that they represented similar experiences (e.g. enhanced reflection, diversification of reflection, and reflection promoting empowerment as positive experiences).

## **Findings**

Through the group interviews, the study explored how the teachers experience the self-reflection related to their teaching processes and well-being. As the participants in the study were teacher educators and most had many years of teaching experience, most of them were very familiar with the themes of the self-reflection and their relevance for teaching.

Through the analysis of the interviews, three themes were identified, which were related to the opportunities the self-reflection may or may not offer in supporting HE teachers' teaching and well-being: (1) Realised support opportunities for teachers: enhancement and enrichment of self-reflection through the self-reflection; (2) Limited support opportunities for teachers: need for a more situation-specific approach for self-reflection; and (3) Expected support opportunities for the teachers: the deepening of reflection through collegial interaction based on the self-reflection.

In general, many of the teachers experienced the use of the self-reflection positively. However, there was considerable variety in whether they found it to be useful for their teaching or well-being. The themes are presented in the following sections along with excerpts from the group interviews.

### ***Realised support opportunities for teachers: enhancement and enrichment of self-reflection concerning teaching processes and well-being***

The first theme focuses on the teachers' experiences that reflect support opportunities they had already identified while utilising the self-reflection tool. Based on the teachers' experiences, the self-reflection had increased the teachers' reflection regarding both teaching processes and well-being. In addition, the self-reflection had diversified the teachers' reflection by providing them with new insights. This was found to be useful

for their pedagogical development but did not necessarily result in any changes in their actual teaching practices.

I have similar positive [experiences], yes. My teaching will not probably change a lot after this, but why I think this was useful is because as a teacher it is important sometimes to do these things and think about [teaching] ... it is good for your personal development. You would not otherwise stop to think about these things. (Group 1)

I was reflecting myself as a teacher in all of these. Like how I have done this or do I have this. With some themes, I thought I could do something more. So, it woke me up to think about these from a personal viewpoint. (Group 2)

As such, the self-reflection acted as an initiator for reflection, which might not otherwise take place in everyday working practice. In addition, the participants saw that an organised way to reflect the teaching-related matters may increase the depth of reflection.

At least in general, it helps you to reflect your teaching better or more specifically and consider different viewpoints based on the feedback ... what kind of teacher you are and in what matters it would be good to develop more. It does not solve concrete problems ... it gives you good tools for self-reflection and through that for the development of your teaching. (Group 2)

Thus, the teachers valued the systematic way the self-reflection promoted teaching-related reflection but also expressed that the feedback lacked concreteness. According to the findings, if the feedback does not relate to relevant and concrete issues a teacher is dealing with, it may not guide them forward.

This was useful in a way that it made me think about my own teaching and different dimension related to it ... but I did not gain anything concrete from it. (Group 2)

Although the enhancement of reflection did not necessarily result in any changes in teaching practices, the self-reflection strengthened the perceptions the teachers already had of themselves as teachers or of relevant pedagogical matters. Thus, it had a reinforcing role for the teachers.

There were many statements and themes that I have been thinking and with what I also work with, so maybe this made it visible to me, so it brought a good feeling. With some parts I felt that hey, I have developed a lot. (Group 5)

In addition to the enhancement of reflection, some of the participants experienced that the self-reflection had supported them in some way or even empowered them as teachers.

It was a pretty good tool for reflection, it was supportive, and even a little bit empowering. You get to know what kind of things you can strengthen in the future. It wasn't problem-focused but solution-focused ... It was interesting to answer the questionnaire and I think that the feedback had good influences, perhaps, related to [my] well-being. (Group 2)

Some of the participants felt that the self-reflection offered them tools for pedagogical development or even increased their well-being.

### ***Limited support opportunities for teachers: need for a more situation-specific approach for self-reflection***

The second theme focuses on the teachers' experiences regarding the limited support opportunities they identified while utilising the self-reflection tool. The results showed that some of the teachers would have preferred a more situation-specific approach so that the self-reflection would have acknowledged differences in learning environments, learning goals and students' backgrounds.

In the interviews, the participants highlighted the importance of context for self-reflection.

I was thinking that I have very different kind of courses that I teach. There are different kind of goals for the courses ... I could not think about the different kind of courses I teach but generally what my goals are and how I approach matters. (Group 1)

Something that I think about constantly, and in this, is that the assumption is that there is only a one kind of learner. In reality we have several kinds of students. The same approach does not work with everyone ... You can't make everything the same ... I did not recognise [from the self-reflection] the diversity of the students. (Group 1)

In addition, the participants noted that it is important to consider the variation between teachers when using the self-reflection as well as situational issues, such as a teacher's emotions influencing the answering to the questionnaire.

As a reflection moment, it was positive. I just keep wondering that you always answer to these inventories according to your feelings at that specific moment. Like how positive or negative feelings you have. (Group 7)

The fact that the teachers were asked to think about their teaching in general instead of a specific context caused some interviewees to worry about the risk that some might respond to the questionnaire from the perspective of an 'expected ideal' of teaching or in other ways experience a hesitation in reflection. Some interviewees thought that such instances might not have positive influences on pedagogical development or teaching-related well-being. According to the participants, including a variety of relevant themes and improving the concreteness of the self-reflection, would guide teachers, especially experienced teachers, forward.

At the same time, the generality of the self-reflection may leave room for individual variation in reflection. The self-reflection may serve as an initiator for reflection, through which the contextual issues become visible to teachers.

It was useful and made me reflect things, but of course those certain practical issues you need to think about yourself and what to develop based on specific situations. (Group 1)

Hence, through the reflection initiated by the self-reflection, individual teachers are better able to consider their personal situations and experiences and gain ideas supporting their pedagogical development.

### ***Expected support opportunities for the teachers: the deepening of reflection through collegial interaction based on the self-reflection***

The third theme focuses on the teachers' experiences of the utility of the self-reflection tool based on their collective identification of the importance of collegial discussion as part of self-reflection when aiming to support teaching or well-being. In the interviews, the participants emphasised the importance of peer interaction when reflecting on teaching-related matters. It was noted that the use of collegial discussions in reflection could reveal new insights for teaching and that interactive reflection should be systematic in the teaching profession.

I would like to have an opportunity to reflect my own teaching with a colleague or with some expert or with anyone. Then you could think about all the questions that you always have when you are teaching. You get that a little bit through collegial support, but it would be good to think if there could be regular or systematic opportunities for that practice. (Group 6)

Moreover, the participants saw that the self-reflection would work best when utilised as a means to enable interactive reflection.

The essential thing to consider is how work communities, for example, our supervisors, how this tool could be utilised in collegial discussions . . . If we would not have this conversation here now then I would not care anymore. I read it in five minutes, and nothing new. But if I was somehow forced to, for example, with my supervisor to go through it, like why do you think or feel this way. Then it could be a genuine tool for reflection. (Group 4)

This common sharing. It would open up this analysis more. Common sharing, finding the time for sharing, reflecting. We should have more that kind of things. (Group 7)

Thus, the study design and the opportunity for group discussion led the teachers to realise the importance of dialogical reflection, through which deeper reflection can occur. According to the participants, if the self-reflection was utilised to initiate reflection, the collegial discussions could then deal with more concrete aspects of teaching and work, serving as forums for sharing experiences and good practices.

## **Discussion**

The aim of the study was to examine HE teachers' experiences of the use of a research-based self-reflection tool aiming to support HE teachers. The HowUTeach tool consisted of themes related to teachers' teaching processes, self-efficacy beliefs (Parpala & Postareff, 2021), self-compassion and self-criticism (López et al., 2015; Neff, 2003), which have shown to be relevant and interrelated factors in HE teaching (Postareff et al., 2023). Thus, they promote teaching-related reflection by focusing on relevant aspects of teachers' work (cf. Biencinto et al., 2021). The findings showed that the HowUTeach self-reflection tool and its' feedback component supported the teachers' reflection. Similarly, Biencinto et al. (2021) have suggested that self-evaluation tools including the feedback, could be utilised in supporting teachers' reflection. Three themes were identified based on the teachers' experiences, which were related to the enhancement and enrichment of self-reflection through the self-reflection, a need for a more situation-specific approach for self-reflection, and the deepening of reflection through collegial interaction based on the self-reflection.

Based on the findings, self-reflection can enhance and enrich teachers' self-reflection by stimulating reflection and providing more variety for such reflection. Similarly, previous research has highlighted the importance of promoting systematic reflection in promoting professional development (e.g. Nel, 2021). Husu et al. (2018) have called for concrete methods for reflection to increase teachers' awareness of the aspects influencing their work. Considering this, the present study highlights the importance of using a valid instrument in self-reflection, as it assures that the focus is on relevant matters supported by evidence. The participants experienced the use of the self-reflection mainly positively, although there was variation concerning the utility of the self-reflection as a support for the teachers' teaching and well-being. Some teachers indicated that the initiated reflection might strengthen teachers' perceptions of pedagogically relevant matters or of themselves as teachers (see Husu et al., 2008). According to previous studies, reflection is often associated with a learning-focused approach to teaching, as teachers' reflection on their own teaching leads to increased pedagogical awareness (Postareff & Lindblom-Ylänne, 2008). Thus, in the present study, the self-reflection promoted teachers' reflection on important teaching-related matters and also provided useful knowledge about how to improve (see Biencinto et al., 2021). They noted that the self-reflection provided them with new insights, which they would not have necessarily considered otherwise. For some participants, it was an empowering experience as a teacher, which was seen as especially beneficial for their teaching-related development and well-being. However, despite the positive experience of increased reflection, some teachers indicated that the use of the self-reflection did not promote any changes in their actual teaching practices.

A limiting aspect of the self-reflection was related to the lack of clarity regarding the teaching context, which may reduce the positive influences of the self-reflection on teaching. The findings highlight the importance of acknowledging teachers' varying situations to promote relevant and influential reflection, which could be better promoted through reflection-in-action (Schön, 1987). Such issues may be related to the subject of teaching, the teaching – learning environment, and students' backgrounds.

The findings indicate that the self-reflection guided the participants to discuss relevant issues together in the interviews, and thus it was seen as a helpful tool for promoting teaching-related discussion (see Husu et al., 2008; Kurtts & Levin, 2000; Rodgers, 2002). Further, the findings suggest that instead of individual use, the self-reflection works best when utilised as a means for interactive collegial reflection, which then creates opportunities for the teachers to share experiences, learn from one another and receive support from one another (Mylykoski-Laine et al., 2022; Pekkarinen & Hirsto, 2017). The participants in the present study highly valued the systematicity the self-reflection can offer for promoting teaching-related reflection in the work communities (see Birmingham, 2023), thus enhancing professional development through systematic reflection (Rodgers, 2002).

### ***Study limitations and further research directions***

As the participants of the study were teacher educators themselves, the self-reflection was sometimes experienced as too self-evident. The teacher educators already represented the more experienced facilitators themselves, which are required for in depth reflection for professional development (Kirkman & Brownhill, 2020). For example, the importance of interaction in learning processes was something these teachers considered all the time in

their teaching. In addition, when looking at the statistical measures utilised in the study design, the participants constituted a select group of pedagogically aware professionals. Consequently, these teachers expected more support, for instance, regarding guiding meaningful interaction to promote deep learning in different kind of teaching situations. Thus, these experienced teachers would benefit more on the reflection-in-action in which thinking about teaching practice would occur during specific teaching situations (Schön, 1987). In addition to further developing the self-reflection tool based on the findings of the present study, it is important for the self-reflection tool to be utilised with HE teachers working in different disciplines and situations in future studies. This would provide more information about the applicability of the self-reflection in different teaching contexts. Finding ways to support teachers' teaching and well-being in different kinds of teaching settings is vital. Although a time characterised by increased distance teaching serves as the context of this study, the findings are expected to bring light to important aspects related to supporting HE teaching in general.

## Conclusions

The present study showed that HE teachers appreciate opportunities to receive support for their teaching and well-being even if the reflection would be general, reflection-on-action (Schön, 1987). Increased reflection can help teachers become more aware of important matters related to their work (see Biencinto et al., 2021; Husu et al., 2008) and strengthen their beliefs of their competence as teachers (see Postareff et al., 2023). However, the relevance of reflection needs to be further promoted through an acknowledgement of the varying situations the teachers are dealing with. In addition, it seems that self-reflection and processing of feedback individually are not enough, and there need to be opportunities to share experiences and engage in discussions with peers (see Kurtts & Levin, 2000).

The findings suggest that dialogical reflection initiated by self-reflection on relevant matters should be included systematically in the practices of HE organisations, which can then support both individual teachers and teaching communities (see Myllykoski-Laine et al., 2022; Rodgers, 2002). The present study is expected to give insights into broader applicability of systematic reflection to support higher education teaching.

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## Disclosure statement

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## Research consent

Informed consent was gathered from the participants to utilise their responses for the research. Information on voluntary participation and data privacy (purpose and procedures of the study, data handling and storage, guarantee of anonymity) were provided to the participants.

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## Appendices

### Appendix 1

#### Appendix 1. Scales and items of the HowU Teach self-reflection tool.

Scale	Items
1. Interactive approach	In my teaching, I create situations where I encourage students to discuss their thoughts and opinions about the topic. I set aside teaching time so that the students can discuss among themselves about the key concepts of the subject. In teaching situations, I provide an opportunity for students to deepen their understanding about the subject through discussion.
2. Transmissive approach	The majority of my teaching time is spent transmitting information to the students about the topic. My teaching is focused on the good presentation of information to the students. The most important goal of my teaching is to deliver what I know to the students.
3. Unreflective approach	I have trouble understanding how I can help the students learn. The students' learning process is so complicated that it is challenging for me to understand how I can support it as a teacher. It is difficult for me to understand what learning is all about.
4. Organised approach	I am organised and systematic as a teacher. I put a lot of effort into my teaching. I spend a lot of time to prepare my teaching.
5. Teaching-related self-efficacy beliefs	I believe I can cope with my teaching tasks. I am confident that I can manage even in the most difficult teaching situations. I am certain, that I have the necessary pedagogical skills to manage in teaching tasks. I am confident that the students learn from my teaching.
6. Self-criticism	I'm disapproving and judgemental about my own flaws and inadequacies. When I fail at something important to me I become consumed by feelings of inadequacy. When I fail at something that's important to me, I tend to feel alone in my failure.
7. Self-compassion	I try to be understanding and patient towards those aspects of my personality I don't like. When something painful happens I try to take a balanced view of the situation. I try to see my failings as part of the human condition.

The participants were instructed to respond to the items from the perspective of their distance teaching experiences. The validation of the scales 1–5 has been reported by Postareff et al. (2023). The scales 6–7 have been developed for the HowU Teach questionnaire based on K. D. Neff (2003).

### Appendix 2

#### Interview questions

- How did you experience receiving the feedback?
- Where would you place your experience of the feedback in regards it being either a positive or negative and either a useful or not useful experience?
- Did you recognise yourself from the feedback?
- What kind of emotions did you have when you received the feedback?
- How did the feedback help you to increase your understanding of your approaches to teaching and their development?
- How did the feedback help you to increase your understanding of your teaching-related self-efficacy beliefs and their strengthening?

- How did the feedback help you to increase your understanding of the meaning of self-compassion in teaching?
- How could the provided development ideas in the feedback be utilised in your own actions?
- How could the feedback be developed further?
- From what kind of teaching-related aspects you wish you could receive feedback?