

Supporting high-quality teaching in higher education through the HowU Teach self-reflection tool

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Abstract

This article introduces the development of the self-reflection tool HowU Teach for higher education teachers. HowU Teach is a research-based self-assessment tool created primarily for teachers in both science universities and universities of applied sciences. The purpose of HowU Teach is to increase teachers' awareness of their teaching and thereby enhance individual self-reflection relating to work and well-being. HowU Teach uses responses to a questionnaire as a base to generate feedback that includes

descriptions of different teaching dimensions as well as ideas on how to develop and improve teaching practices. This article defines these dimensions and presents the idea of counter feedback. The results from the pilot tests of HowU Teach were promising, and teachers identified that the instrument advanced their teaching practices. The tool is now being developed further.

Keywords: *self-reflection, higher education teachers, higher education teaching, self-efficacy*

HowUTeach -itse- arviointityökalu laadukkaana korkea- kouluopettamisen tukena

Tiivistelmä

Artikkeli esittelee korkeakouluopettajien työn tueksi kehitetyn HowUTeach -itsearviointityökalun. HowUTeach on korkeakoulu-pedagogiseen tutkimukseen perustuva, korkeakouluopettajien itsearviointityökalu, jonka avulla HowUTeach -kyselyyn vastaa-ville korkeakouluopettajalle voidaan tuottaa tutkimukseen perustuva vastapalautte

oman opetuksen ja pedagogisen asiantun-
tijuuden kehittämisen tueksi. HowUTeach-
in käytön ensisijaisena tavoitteena on lisätä
korkeakouluopettajien tietoisuutta omasta
opetuksesta, ja lisätä näin opettajien kykyä
reflektoida ja kehittää omaa opetustaan se-
kä edistää heidän hyvinvointiaan. HowU-
Teach on suunniteltu ja kehitetty erityises-
ti tiede- ja ammattikorkeakouluopettajien
työn tueksi. Artikkelissa kuvataan kyselyn
eri ulottuvuudet ja vastapalautemekanis-
mi, joka perustuu opettajien kyselyvastauk-
siin. HowUTeachin alustava käyttö on an-
tanut rohkaisevia tuloksia ja opettajat ko-
kevat, että kyselyn käyttö auttaa heitä ke-
hittämään heidän opetustaan. Kyselyä ke-
hitetään edelleen.

Avainsanat: *itsearviointi, korkeakouluop-
ettajat, korkeakouluopetus, hyvinvointi*

Introduction

unded by the Ministry of Education and Cul-
ture from 2017 to 2019, the HowUTeach project
was part of an extensive teacher education reform
that sought new solu-
tions to support current
and future teachers. The project was led
by the Centre for University Teaching and
Learning at the University of Helsinki in
cooperation with the University of Turku.
As the project evolved, Aalto University
and Häme University of Applied Scienc-
es also contributed to the development of
this research-based self-assessment tool.
Focusing on the requirements of teach-
ers in both science universities and uni-
versities of applied sciences, HowUTeach
contains different inventories that cover
teaching processes (approaches to teach-

ing), experiences of the work environment
(autonomy, peer support), and well-being
(self-efficacy). Through the use of a ques-
tionnaire and feedback, the tool aims to
increase teachers' awareness of these di-
mensions in relation to their own work
and enhance self-reflection of their teach-
ing and well-being. Based on the individ-
ual's responses to the questionnaire, the
feedback produced by HowUTeach in-
cludes descriptions of different teaching
dimensions and suggestions on how to
improve teaching practices. An extensive
analysis of higher education pedagogy
was used to develop HowUTeach, and thus it
can also be utilised as a research inventory.
This article first describes the project that
developed the HowUTeach inventory and
its content. The idea of using HowUTeach
as a self-reflection tool is also introduced.

Creating an inventory to support higher education teachers' teaching

The aim of the HowUTeach project was to develop an instrument or a collection of research instruments that could be used for many different purposes. The inventory in HowUTeach functions as a tool for gathering research data from teachers; however, it also provides teachers with research-based counter feedback. Previous research has shown that a teacher's awareness of their own approaches to teaching is important for their pedagogical development (Postareff & Lindblom-Ylänne, 2008). In the higher education context, the HowULearn inventory has already provided good examples of how counter feedback can support students' awareness of their study methods and supply constructive ideas for improvement (Parpala et al., 2018). HowULearn provides students with personalised feedback on their learning as well as guidance on ways to enhance their skills (Parpala & Lindblom-Ylänne, 2012). The feedback focuses on the student's approaches to learning, self-efficacy, and study-related burnout. Students receive the mean scores of their own answers to the scales, which measure the dimensions of their learning experiences. They also receive the mean scores of the whole group's answers to these scales. In addition, students are provided with descriptions of the different scales and guidelines on how they can improve their own learning.

HowUTeach uses a similar structure to HowULearn; however, rather than focusing on students, HowUTeach was designed for teachers in higher education with adjusted measurements for teaching processes, experiences of autonomy and peer support, and self-efficacy and burn-

out. These scales were selected for HowUTeach as previous research had identified their suitability for providing counter feedback (Parpala et al., 2018) or highlighted their importance as elements of teachers' well-being (Postareff & Lindblom-Ylänne, 2008, 2011; Cao et al., 2018). Several scales had also been used to support teachers' pedagogical development in higher education (Englund et al., 2018). Using these criteria, the inventories developed for the HowUTeach tool focus on teaching processes (approaches to teaching), experiences of the teaching-learning environment (autonomy, peer support), and self-efficacy. The final dimensions used in the HowUTeach inventory are presented in Figure 1 (page 64), and the factors and items are shown in Appendix 1. The remaining sections of this paper will further explain the dimensions and their theoretical and empirical background.

Approaches to teaching

The developers of HowUTeach used previous research by Postareff and Lindblom-Ylänne (2008) and their extensive interview data to create new items that measure the different dimensions of approaches to teaching in higher education. During this process, the original Approaches to Teaching Inventory (ATI) and Revised Approaches to Teaching Inventory (ATI-R) (Trigwell & Prosser, 2004; Trigwell et al., 2005) were also used and critically examined item by item. Moreover, new dimensions were added that were not previously included in the ATI or ATI-R. Four different scales measuring approaches to teaching were used: (1) Interactive approach, (2) Unreflective approach, (3) Transmissive approach, and (4) Organised approach.

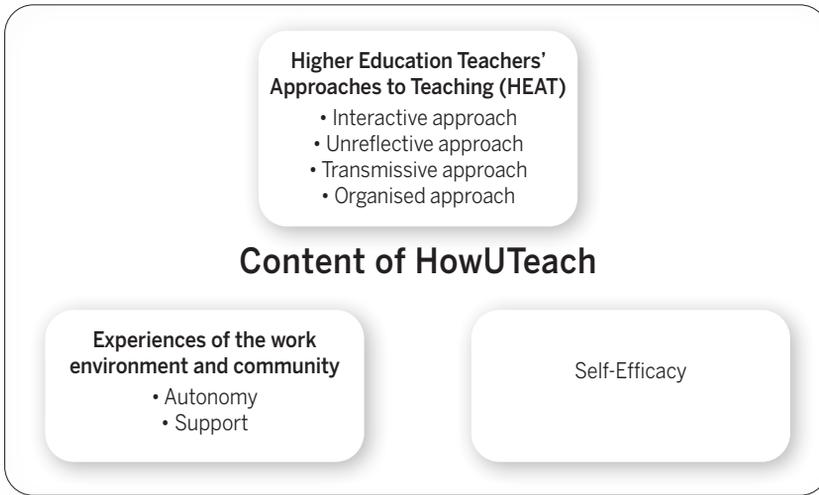


Figure 1. Content of the HowUTeach self-reflection tool

Autonomy and peer support

The psychosocial work environment factors discussed first in this project included concepts of collegial support, autonomy at work, utilisation of student feedback, the perceived relevance of teaching, and the level of interest in teaching. Research suggests that supportive communities facilitate pedagogical development (Kurtts & Levin, 2000; Englund et al., 2018). Autonomy has a positive effect on teacher motivation, and it is also considered a critical requirement in higher education (Esdar et al., 2016). Therefore, two scales measuring autonomy and peer support were developed for HowUTeach during the project.

Teaching-related self-efficacy

A scale from HowULearn (Parpala & Lindblom-Ylänne, 2012) was also adapted to the teaching context to measure self-efficacy. The initial items in HowULearn were based on

the *Motivated Strategies for Learning Questionnaire* in Pintrich et al. (1993). In every scale, the participants are asked to respond to the items on a 5-point response scale from 1 (totally disagree) to 5 (totally agree).

Counter feedback for teachers

To support educators and their teaching, the HowUTeach project developed counter feedback for each scale. The counter feedback is initiated by the teachers filling in the questionnaire then calculating their scores for the different scales. An interpretation key presents the scales and the items that they consist of. The teachers are prompted to read the descriptions of the scales and consider how high they scored in each scale. Thus, the interpretation key supports the teacher's awareness of the types of elements that are prominent in their own teaching and how these elements are defined in previous research. The next step in the development of HowUTeach is to produce more individualised counter

feedback so that high or low scores generate different forms of support and personalised suggestions for improving teaching.

Testing and piloting the instrument

HowU Teach was tested and piloted on several occasions with over 50 higher education teachers. In these sessions, the teachers were asked to fill in the questionnaire and calculate their own scores with the help of a scoring key. They were also instructed to read the counter feedback and evaluate their own scores in different dimensions. For example, they were asked to focus on the differences in their scores for the various dimensions and consider the counter feedback. The participants were then asked to reflect on whether the feedback was in line with their own evaluation of their teaching. The items and feedback were also discussed with the teachers, with a focus on how they were experienced. In these pilot tests, the higher education teachers described the feedback as useful for increasing their awareness of teaching and providing specific advice for teaching development. They also identified that the feedback could be utilised in discussions with their superiors and pedagogical leaders. The teachers clearly stated that they would benefit from using the instrument as it helped them to reflect on their own teaching and its effectiveness. Additionally, the teachers emphasised that the tool should cover online teaching as well as face-to-face contexts. Therefore, HowU Teach was also tested using a questionnaire that could be completed from both perspectives.

The pilot testing and several quantitative factor analyses have demonstrated that HowU Teach is valid and useful in de-

veloping teaching in both online and face-to-face contexts. Overall, the piloting of the tool has produced promising results. HowU Teach is currently freely available, although the resource will be developed further in various higher education contexts. For further information, please contact the authors.

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Appendix 1. Inventory and sources of items

Parts and scales of HowU Teach	Source of item
Part 1: Approaches to Teaching	
Scale: Interactive Approach, alpha .816	
In my teaching, I create situations where I encourage students to discuss their thoughts and opinions about the topic.	a
I set aside teaching time so that the students can discuss the key concepts of the subject among themselves.	b
In teaching situations, I provide an opportunity for students to deepen their understanding about the subject through discussion.	a
Scale: Unreflective Approach, alpha .712	
I have trouble understanding how I can help the students to learn.	a
The students' learning process is so complicated that it is challenging for me to understand how I can support it as a teacher.	a
It is difficult for me to understand what learning is all about.	a
Scale: Transmissive Approach, alpha .783	
The majority of my teaching time is spent transmitting information to the students about the topic.	a
My teaching is focused on the good presentation of information to the students.	b
The most important goal of my teaching is to deliver what I know to the students.	b





Parts and scales of HowU Teach	Source of item
Part 1: Approaches to Teaching	
Scale: Organised Approach, alpha .742	
I am organised and systematic as a teacher.	c
I put a lot of effort into my teaching.	c
I spend a lot of time preparing my teaching.	c
Part 2: Experiences of the work environment and community	
Scale: Autonomy	
In my daily teaching, I am free to choose teaching methods and strategies.	d
In the subjects that I teach, I feel free to decide what content to focus on.	d
I feel that I can influence my working conditions.	d
Scale: Community support	
My colleagues listen if I tell them about the challenges I face in my teaching.	e
My colleagues are open to new ideas regarding teaching.	e
My closest work community values teaching and its development.	e
Part 3: Self-efficacy	
I believe I can cope with my teaching tasks.	c
I am confident that I can manage even in the most difficult teaching situations.	c
I am certain that I have the necessary pedagogical skills to manage teaching tasks.	c
I am confident that the students learn from my teaching.	c

References and backgrounds for different items:

- a** Developed for HowU Teach and based on a previous interview study (Postareff & Lindblom-Ylänne, 2008).
- b** Modified and further developed from ATI-R (Trigwell et al., 2005).
- c** Developed for HowU Teach and based on a previous interview study (Postareff & Lindblom-Ylänne, 2008); items from HowULearn contextualised for HowU Teach (Parpala & Lindblom-Ylänne, 2012).
- d** Modified and further developed from Techno-Work Engagement Scale (Mäkiniemi et al., 2017)
- e** Developed for HowU Teach by the HowU Teach research group.