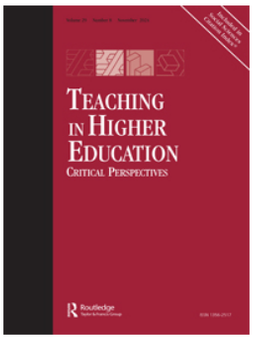

Taylor & Francis
Taylor & Francis Group

Teaching in Higher Education
Critical Perspectives

ISSN: 1356-2517 (Print) 1470-1294 (Online) Journal homepage: www.tandfonline.com/journals/cthe20

Developing as a teacher: changing conceptions of teaching and the challenges of applying theory to practice

Gwyneth Hughes, David Baume, Ayona Silva-Fletcher & Linda Amrane-Cooper

To cite this article: Gwyneth Hughes, David Baume, Ayona Silva-Fletcher & Linda Amrane-Cooper (2024) Developing as a teacher: changing conceptions of teaching and the challenges of applying theory to practice, Teaching in Higher Education, 29:8, 2168-2183, DOI: 10.1080/13562517.2023.2212589

To link to this article: https://doi.org/10.1080/13562517.2023.2212589

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

Published online: 22 May 2023.

Submit your article to this journal

Article views: 4394

View related articles

View Crossmark data

Citing articles: 4 View citing articles

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=cthe20

TEACHING IN HIGHER EDUCATION
2024, VOL. 29, NO. 8, 2168–2183
https://doi.org/10.1080/13562517.2023.2212589

Routledge
Taylor & Francis Group

RESEARCH ARTICLE

OPEN ACCESS Check for updates

Developing as a teacher: changing conceptions of teaching and the challenges of applying theory to practice

Gwyneth Hughes[a], David Baume[b], Ayona Silva-Fletcher[c] and Linda Amrane-Cooper[d]

[a]IOE, UCL's Faculty of Education and Society, University College, London, UK; [b]Centre for Online and Distance Education, University of London, London, UK; [c]Royal Veterinary College, London, UK; [d]Academic Practice in Online and Distance Education University of London, London, UK

ABSTRACT
This paper reports on the development of a lecturer's conceptions of teaching through formal training and explores how evolving conceptions of teaching impact on their plans and practices in teaching. In this study, lecturers who are participants in the University of London Postgraduate Certificate in Higher Education (PGCertHE) wrote narratives of their teaching development. The changes are described in terms of models of development of higher education teachers proposed by, chiefly, Kugel. Participants show clear evidence of conceptual development in terms of these models, but their changes to practice were less well developed within this study period. The paper identifies six different approaches to applying theory to practice and proposes that understanding these different stages in context is helpful for transforming lecturer practice in the longer term.

ARTICLE HISTORY
Received 11 February 2022
Accepted 4 May 2023

KEYWORDS
Teacher development; conceptions of teaching; theory to practice; postgraduate certificate in higher education

Introduction, contexts and rationale for the study

There is an increased expectation that teachers in further and higher education should be trained in teaching, learning and assessment to enhance the quality of teaching (Hénard 2010; Parsons et al. 2012). This has become a global trend. In some countries, it is a national legal requirement for teachers in universities to be qualified to teach. This applies to all higher education teachers in Denmark, Ethiopia, Finland, Norway, Sri Lanka and Switzerland. Some countries such as the UK, the Netherlands, Sweden, Japan, Thailand, Ireland and Australia have national frameworks and minimum standards for teachers in higher education such as the UK Professional Standards Framework (Advance HE 2011), but a teaching qualification is not compulsory. In countries such as Germany and Switzerland, a teaching qualification is mandatory for medical faculties and universities of applied sciences. In some countries there are institutional policies that stipulate teaching qualifications as probationary requirements and for further promotions (Parsons et al. 2012).

CONTACT Gwyneth Hughes gwyneth.hughes@ucl.ac.uk IOE, UCL's Faculty of Education and Society, University College, London, UK

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (http://creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

Postgraduate Certificates in Higher Education teaching and learning (PGCertHE), and broadly similar long-term teaching development courses offering sustained training and qualification, have been running for university teachers in the UK and other countries for over 4 decades (Chalmers and Gardner 2015). Although there is a general agreement that these longer-term training programmes are beneficial for staff, and have a significant impact on their approach to teaching (Stes, Coertjens, and Van Petegem 2010) and overall quality of teaching (Hénard 2010; Strang et al. 2016), evidence of the impact of such programmes on actual changes in teacher performance, or on the effects at an institutional or student level, is lacking (Stes et al. 2010; Parsons et al. 2012; Chalmers and Gardiner 2015). Studies tend to indicate that participants gain in confidence from undertaking such a PGCertHE (Butcher and Stoncel 2012; Ödalen 2019), but the contribution of this kind of programme to improving the conceptions of teaching required to change teaching practice is not well-established (Gunn and Fisk 2013).

One of the most useful larger-scale studies on the impact of teacher development courses in Higher Education is Gibbs and Coffey (2004), which explored changes in teacher conceptions of teaching and changes in their students' approaches to learning using a control group. Compared to the control group, more of those who experienced teacher training described themselves as student-focused and described their students taking a deeper approach to learning. However, the effects, although statistically significant, were quite small. A Swedish study produced similar findings (Ödalen 2019). Even when there is a measurable impact of postgraduate courses on conceptions of teaching, the extent to which theory underpins change in practice is sometimes unclear. However, Ho's work (1998, 24) reports that 'a lecturer's conception of teaching plays an important role in his/her decisions about teaching'.

A study of a University of London (UoL) PGCertHE programme explored in-depth accounts of learning from a group of participants taking the first module of this online programme. At the time of writing (January 2022), 373 course participants had undertaken or were currently undertaking Module 1 of the PGCertHE and 306 for Module 2. Course participants were studying in 26 countries on four continents.

The programme was designed using a student-focussed and interactive pedagogy, including the use of online tools such as a discussion forum, reflective journals and peer review workshops. The approach to learning is ipsative (Hughes 2014) meaning that participants are expected to record their development in learning and teaching from their current practice through reflective work and working with peers. In an evaluation of the programme, peer review was strongly associated with enabling learning (Hughes 2019). An ipsative approach is important because in this international programme participants will have different teaching cultures and starting points (Welikala and Watkins 2012). Participants undergo an experiential learning cycle by becoming 'students', and thus have first-hand experience in understanding how their own students learn, how best to utilize different teaching methods and how assessments can drive learning.

The assessment tasks draw on both theory and practice. An assessment criterion for Module 1 was stated in the Module handbook as: 'Critical application of appropriate learning theories to practice'. This is therefore an ideal programme for exploring the

potential impact of professional development courses on conceptions of teaching, on teaching skill development and on transforming teaching practice.

Models of teaching development

There are several models of development of teachers' conceptions of teaching, including Fox (1983), Ramsden (1993), Kugel (1993), Trigwell, Prosser and Taylor (1994), Kember (1997), Ho (1998), Pratt (1998), and Nichols (2005). Models of how teachers develop share a conceptual shift from focus on the teachers and teaching to focus on the learner and learning (see for example Biggs and Tang 2011; Kember 1997; Guskey 2004; Trigwell and Prosser 1996; Kugel 1993).

The most useful models identify stages of development. For example, Guskey describes a five-stage professional development evaluation which includes Participants' Reaction, Participants Learning, Organisation Support and Change, Participants' Use of New Knowledge and Skills and Student Learning Outcomes. Stes, Coertjens, and Van Petegem (2010) further elaborated Guskey's level 2 to include: impacts on teacher attitudes (changes in attitudes towards teaching and learning); impacts on teaching conceptions (changes in ways of thinking about teaching and learning); impacts on knowledge about teaching (acquisition of new or enhanced concepts, procedures and principles); and impacts on skills of teaching (acquisition of thinking/problem solving, psychomotor and social skills).

A recent analysis (Baume and Rofe, in submission) identifies, among various published accounts of teacher development, six elements or dimensions. In brief these are the person on whom the teacher focuses their attention, the object that is the focus of the teacher's attention, the teacher's intention or purpose, the teacher's practice, the theories, conceptions and / or models of teaching and learning that the teacher espouses and with some overlap enacts, and the values or principles that inform and underpin a teacher's practice, all within a matrix of awareness of and connection or relations among the teacher's location on these six dimensions. Of the accounts analysed, Kugel identified four of these dimensions, more than any other authors. This may explain the usefulness of Kugel's account in its offering more points of contact than other accounts.

The analysis of PGCertHE programme in this study mainly uses the Kugel framework (1993) to follow teachers' development during the module, not only because of its detailed breakdown of dimensions of teaching, but also because participants are introduced to this framework early in the course, and many use it in their reflections as teachers.

Kugel's model – five stages of development

The Kugel (1993) model includes five stages of development and the focus of each stage along with the transitions between the stages. The model is summarised in Table 1.

The Kugel framework can be mapped onto established theories of learning. In stages 1–2 of the framework teachers are focused on their professional identities as academics through disciplinary knowledge and students are positioned as 'other' in this process. As they move from stage 3–4 they recognise that students are important but they vary in the depth of their approach to learning (Marton and Säljö 1984; Biggs and Tang 2011). As a

Table 1. An overview of Kugel's account of how professors develop as teachers.

Stage or Transition	Focus or change of focus	Quote from Kugel (1993) paper
Stage 1	Self	'When they first step up to the front of a classroom as its teacher, most of them share a common feeling–abject terror. The question uppermost in their minds is "Will I survive?"' (Kugel, 1993:117)
Transition 1–2	From self to subject	'After professors have developed good ways to present their material, they may continue to worry about their mastery of the material they are presenting. Do they know enough? Have they read enough? … They begin to think about how deep and rich it (the subject) really is … . And they think of themselves as passing on to their students their own knowledge, skills and understanding.' (118)
Stage 2	Subject	'If [the teacher] looked at their teaching from their students' point of view, they might be able to see what was going wrong. As they pack more and more into their lectures, their students sit there, trying to write it all down. [Students] have little time to think about what they are writing and make it their own.' (119)
Transition 2–3	From subject to student	'Why, the professors at this stage may wonder, aren't the students interested? Why aren't they getting it? `It's clear to me', thinks the professor. `So how come it's not clear to them?' 'It's interesting to me. So how come it's not interesting to them?' … (119–120)
Stage 3	Students as individuals	'As their attention shifts to their students, they begin to notice that they are not an undifferentiated mass of identical people. They begin to see that they are individuals with different interests and abilities. And they begin to realize that those differences will have to be dealt with if the material is to get across.' (320)
The Phase Transition:	From teaching to learning	'After a while, however, [teachers] usually master the role of the teacher in the classroom, at least to their own satisfaction. Now they no longer have to think much about how to do it and they can pay more attention to what they are doing it for–their students' learning.' (321)
Transition 3–4	From student as receptive to student as active	'Students into whose minds information is poured can often regurgitate what was poured in, especially if their grade depends on it. They remember the facts (but not for long). But they don't see the connections. Perhaps the students' minds are less like pails to be filled than like muscles to be strengthened by exercise. Perhaps learning is something students do rather than something that is done to them.' (322)
Stage 4	Student as active	'Getting your students to do things in class–rather than just doing things to them–is not always easy. You have to pay careful attention to what you, the professor, do not do. Professors who want their students to do more in class have to practice holding back and to realize that sometimes, in education as in architecture, "less is more".' (323)
Transition 4–5	From student as active to student as independent	'As students take greater control of their own learning, they notice something that their professors noticed when they first started teaching. You have to understand something better to teach it to somebody else than when somebody else teaches it to you.' (324)
Stage 5	Student as independent	'Now, here [teachers] are some years later, trying to help their students learn the material without their help. If they (students) learn how to learn, they can learn new things and different things that they may need in their lives. That does not mean that students should only learn how to learn. What they learn still matters, but it is not the only thing that matters and, from the viewpoint of this stage, it may not even be what matters most.' (325)

consequence, the teacher can make a difference in motivation by encouraging students to be active and reflective (Ashwin 2015). Underpinning a move to stage 5 is an understanding of learning as a socially constructed process where teachers facilitate dialogue for learning rather than transmit knowledge (Laurillard 2002) and students become self-

regulating (see Zimmerman 2002) and manage their own learning. Kugel presents the framework as linear and cumulative, but for some teachers understanding the theories of learning is very challenging (Quinn and Vorster 2015) and so moving through the stages is not inevitable for all teachers.

There is some evidence that professional development can change beliefs about the importance of student-centeredness (Rienties, Brouwer and Lygo-Baker 2013), but this might depend on the starting position of the participants – experienced teachers may already be focussed on their students, but with a range of practices – so a more nuanced understanding of teacher development is required. Kugel (1993) offers this in the 5 stages of the model. However, Kugel is not widely tested empirically, and this paper goes some way to ascertain if the stages described by Kugel do match with the experiences of teachers.

The first question that underpins this study is therefore: In terms of the Kugel framework, how do participants demonstrate development in their conceptions of teaching?

There is evidence that changing perceptions is an important precursor to changing practice (Ho, op cit). But modelling stages of conceptions of teaching is not the same as charting changes in actual teaching practice. Guile (2019) has explained that knowledge must be reconceptualised for the workplace, which in this study is the higher education classroom. Boud and Brew (2017) also argue that becoming a teacher is not about acquisition of skills and knowledge that can be transferred into the required setting. Their 'practice' focus on teacher development and views teaching as a social activity that is dynamically constructed from previous experience, colleagues, disciplinary practices, student–teacher interaction and a range of artefacts such as assessment and course designs. Thus, a simplified and decontextualised relationship between theory and practice could be seen as another limitation of the Kugel framework.

The paper next explores how teachers might reconceptualise theory as practice, and offers new ways of understanding why there may be a disjuncture between theory and practice for many of these professionals. This in turn leads to the identification of our second question, on conceptions of teaching, plans and practice.

Conceptions, theories, plans and practice

Conceptions

'Conceptions of teaching and learning' is in itself a sophisticated concept. We may hold, in the important sense of enacting, conceptions without yet being able to articulate them, certainly without having previously articulated them. For example, a lecturer who unthinkingly chooses to lecture – perhaps because it was the way they were taught, perhaps because they are unfamiliar with other possible ways of teaching, perhaps because lecturing is 'the way we do things here' – has, or at any rate enacts, a conception of teaching as, at least in part, telling.

'Changing conceptions of teaching' is therefore also problematic. These changes may not be changes from one explicitly held, stated and / or practised conception to another, but rather a change from tacit conceptions embedded in practice to conceptions which are variously made explicit and or applied to planning and practice. Given the explicit attention to theory and conceptions in relation to practice that the PGCertHE gives,

we would hope not to see only a shift to new tacit conceptions. And indeed we rarely see such shifts. Participants are (to varying degrees, but generally visibly) explicit about their changing conceptions of teaching and the implications of these changing conceptions for their practice.

Conceptions and theories

There is no obvious clear distinction between 'conceptions of teaching and learning' and 'theories about teaching and learning'. (It may be suggested that conceptions are in some sense owned, held enacted, whereas theories may remain 'out there', separate. But it is not easy to see such a distinction. For example, a conception of teaching as 'encouraging students to undertake appropriate and productive learning activities' is intimately related to a theory which says that 'undertaking appropriate and productive learning activities is an effective way to learn'. For this reason, we have taken a broad approach to 'conceptions of teaching and learning', to embrace 'theories about teaching and learning'.

Reflective practice

This Postgraduate Certificate, in common with many others, promotes reflection on practice as a means to developing and enhancing teaching drawing on the reflective learning cycles proposed by Kolb (2015). These cycles of reflection include stages of observing and evidencing practice, analysis, reflection, thinking conceptually, planning and taking action (Ashwin 2015). Ashwin also explains how reflection requires questioning of everyday assumptions, appropriate contexts, opportunities to collect evidence and dialogue (which may be internal self-dialogue or external) and these were all present in the design of the PgCertHE. While we have presented above how Kugel has identified discrete steps or shifts in conceptions of teaching and shows how teachers start to question their own practice alongside the conceptual shifts, details of how practice might develop – perhaps also in stages and likely to be context-dependent – are missing from the framework.

Our second question is therefore: How do participants on the programme connect theories or conceptions of teaching with their own practice, or plans for change in practice?

Methodology

The assessment approach taken in PGCertHE is based on participants undertaking critical reflective analysis in the first of the two 30 credit modules. They then prepare a plan for an enhancement of learning, teaching and/or assessment in the second module. (We refer to students on the PGCertHE as course participants, to avoid possible confusion with the students whom the participants teach.) This paper concerns our exploration of outputs from the first module, entitled Supporting Learning, Teaching and Assessment. The module requires participants to submit two course work assignments: an online learning activities review; and a Reflective Narrative in which they describe and analyse their development as a teacher.

The research team consisted of 4 academics who had contributed to the writing of the programme and who have tutored on the programme on at least one occasion. The team

identified a set of diverse participants from two cohorts of the module. These were selected on the basis of marks, geographical location, type of institute in which they worked, subject discipline and gender. Both coursework assignments had been submitted by each participant selected. The participants were informed of the study before they began their programme and were assured that the research would have no impact on their assessments. All were given an opportunity to opt-out if they wished. The 12 participants whose work was selected for analysis were all given pseudonyms for data sharing, analysis and reporting. Ethical approval was obtained from the RVC Social Science Ethical Review Board.

Narrative accounts based on selected quotations from the participants were derived by the researchers from two assignments on the first module 'Supporting Learning, Teaching and Assessment'. Both assignments asked participants to reflect on their learning. The early first assignment was a short critically reflective account of 3 online activities they had found useful in fostering engagement and facilitating learning. This included a discussion of relevant literature and implications for their own practice. The second assignment, submitted at the end of the module, was a longer reflective account of their learning on the programme that was expected to draw on literature and theory to demonstrate an understanding of learning and teaching with information and evidence of change in practice (planned or implemented or both). They were also invited to provide a supporting appendix. Assignment 1 and 2, respectively, comprised 1000 (+/−10%) and 4000 (+/−10%) words. Therefore for each student some 5000 words were analysed.

An initial proforma was completed by the researchers for each participating student to select examples of:

- Change in conceptual thinking
- Change in teaching and learning planning
- Changes in teaching and learning practice.

The analysis considered both what the participants were themselves saying about their practice, which they sometimes articulated in relation to conceptual frameworks such as Kugel (1993), and what the research team interpreted as evidence of change, again with reference to Kugel (ibid). Key texts referred to by the student and/or influential activities from the programme were also noted.

These participant accounts were then summarised by the research team into narratives of the selected participant's development over the module. Initial pilot analyses were exchanged amongst the team and discussed to ensure a good level of inter-rater reliability.

In the sections that follow we discuss the findings that demonstrate shifts in the participants' thinking about teaching using Kugel's framework followed by a discussion of the findings relating to participants' approaches to reconceptualistion of knowledge for practice.

Findings 1: narrative analysis of participants' Kugel shifts

Excerpts from two narrative analyses selected at random are presented below to illustrate Kugel (1993) stages, and transitions or shifts between stages. A summary of all the

Table 2. Summary of participants and their Kugel (1993) shifts during the module.

Pseudonym	Background	Grade	Kugel (1993) stage shift
Ali	Male teaching in developing country	Fail	Kugel 2–3
Manal	Male teaching at UoL overseas teaching centre	Pass	Kugel 2–4
Moses	Male UK institution with industry experience	Pass	Kugel 2–4
Ayam	Male teaching in a developing country	Merit	Kugel 2/3–4 with some reference to level 5
Fred	Male teaching at UoL overseas teaching centre	Merit	Kugel 3–4 with some implicit practical evidence for level 5
Cilla	Female and European teaching on UK programme	Merit	Kugel 1/2/3–4 and 5
George	Male and European teaching on UoL programme	Merit	Kugel 1/ 2–4
Tom	Male Private UK institution	Distinction (for main assignment)	Kugel 3–4
Natasha	Female teaching in a UK institution and TNE in China	Pass	Kugel 3–4
Wassim	Male teaching at UoL overseas teaching centre	Merit	Kugel 2–4 and 5
Diana	Female teaching at UoL overseas teaching centre	Pass	Kugel 3–4
Daniella	Female UK clinical educator	Merit	Kugel 3–5

Note: Male = 8 and female = 4 (Male representation in the programme is 55% over last 3 years).

participant narrative analyses is given in Table 2 before these, all of which demonstrated Kugel shifts to some extent.

Excerpt 1 Ayam

Ayam appears to be an experienced teacher with successful teaching practice in a developing country, but he had not been aware of what makes teaching successful until now. The theoretical ideas introduced on the module clearly helped him to articulate an understanding of good teaching. He described the:

> … limited knowledge I had just few weeks ago on theories of learning and teaching. Now I know that I was talking about 'Teaching as telling or transmission' and 'Teaching as organising student activity'.

Here we have a Kugel (1993) shift from a focus on the subject and viewing the student as receptive to transmission (levels 2 and 3) to the student as active (level 4). It seems at this stage that Ayam is using the conceptual ideas introduced in the module to analyse his existing practice, rather than develop new practice.

By the second assignment he is just beginning to think about student self-regulation which is consistent with a transition to Kugel (1993) level 5:

> So now, when I look back at my previous teaching practices in the light of understanding, skills and ability that I have acquired from this module so far, I feel that I was just good in communication and 'transmission of knowledge' … Otherwise, crucial elements of teaching learning such as critical reflection, feedback-feedforward, learning engagement etc. were completely missing in my teaching practices. Concepts of self-managed and self-regulated learning were miles far away.

Now Ayam is referring to changing teaching practice, and there was some evidence of this in his account. He reportedly plans to introduce activities attributed directly to the module:

> I have also considered (tutor name's) suggestion as in the Mini Lecture 2 that 'introduce activities after lecturing for every 10–15 min'.

He also described his new role as moderator:

> I provided students 'weekly topics' in the very beginning of the semester and instructed them to get prepared in due time. I also instructed them that one person would initiate his/her view on the topic while others must either support or challenge his/her view. My role as a lecturer was just to moderate their discussion (guide on the side). In this approach, I found that students were more engaged – they communicated with each other, they shared their ideas, they commented, they agreed, they disagreed, they brought a lot of relevant examples into discussion and so on.

On relating theory to practice, he was aware that teaching practices have a basis in theory from course readings when he explained:

> Now with full confidence, I am able to connect those discussion with Kolb's circular model or Bruner's spiral model or constructivism. Moreover, now I have better understanding in terms of engaging students in those activity-based learning.

This is a rich account of shifts in conceptual thinking and awareness of education theorists and there are new plans. However, as with the other accounts, evidence for impact on his actual practice is limited, probably because of the timescale of the module (22 weeks) which does not give time to put new ideas into practice. Where he has changed practice, he has noticed an impact in that the students were more engaged.

Excerpt 2 Cilla

Cilla, as an experienced teacher, was one of the few participants who explicitly referred to the Kugel (1993) stages. She was self-critical by admitting to starting with a '"blame the students" (Biggs and Tang 2011, 18) approach'.

> … from practising reflection, I realised that I am perhaps still stuck at Kugel's (1993) stages 1, 2, and 3 (Concern with self; Concern with subject; 3 Concern with students as absorbers) although I also think that have started to move – tentatively – to Kugel's stages 4 and 5 in my teaching practice.

She drew on her own experience of learning on the module and the module texts to realise she took a surface approach to learning (because of time constraints) but was now taking a more satisfying deeper approach:

> Also shifting from a surface approach to learning – that was 'tedious and unrewarding' (Ramsden 2003, 58) – to a deep approach inevitably gave me a higher sense of 'involvement, challenge and achievement, together with feelings of personal fulfilment and pleasure' (Ramsden 2003, 57).

She uses self-critique to plan for change as she demonstrates her shift in conceptual thinking from Kugel (1993) 1–2 (teacher as expert knowledge transmitter) through a transition from level 3–4 (students as active) to an appreciation of students as independent learners for level 5:

> How can I transition from sage on the stage to guide on the side (King 1993)? What should I do to 'get the students actively involved in their own learning' (Kugel 1993, 323)? And also, how to make them 'learn how to learn' (Kugel 1993, 325)?'

Her plans were prompted by a large number of activities on the PGCertHE module, and she produced a short lesson plan with activities.

In addition, she planned the use of formative assessment:

> It has contributed to the idea of moving away from lecture mode to more student-centred teaching, to the importance of writing clear LOs (Learning Outcomes), of the role of formative assessment. And even though I have not been able to put all that I have learnt into practice yet, I very much look forward to the start of the new academic year.

In encouraging the shift from teacher focus to learner focus, the module also increased her awareness of student diversity. She was 'appalled to realise' that she had not taken students' (diverse) prior learning into account – and she notes that developing a class diagnostic will be useful in this respect. Cilla also used the ideas presented concerning student diversity 'and tried to apply Perry and Marton and Säljö's scales to one of my classes'. Thus, now that she has developed conceptually, she is motivated to put her new ideas into practice.

Findings 2: relating theory and practice

For their second assignment, participants were asked to give examples of their teaching practice and apply theory to explore what they were doing. Because the teaching and learning part of the module was over a limited period of time (20 weeks), many of the participants would not have opportunities to significantly change their practice during this time: in these cases, they were encouraged to present future plans for change of practice. Some participants' teaching role was limited as a distance learning tutor and they did not have opportunities to change any curriculum design or assessment. However, all participants might be expected to undertake learner support and/or tutoring, so all could potentially meet the assessment criteria for applying learning theory to practice.

Ayam's narrative provided examples of new practice and Cilla's demonstrates intention to develop practice. It is worth unpicking the idea of 'relating theory to practice', based on the narratives above. Further reading of the narratives provided insight into 6 different ways of relating theory to practice.

(1) Realising that named teaching practices had some basis in theory
(2) Using theory to analyse and critique their own previous and current teaching practice, and / or the broader cultural and educational contexts in which they have practised / practise
(3) Using theory to critique/review the PGCertHE course
(4) Using theory to plan future changes to their own practice
(5) Using theory to make changes to their own practice
(6) Using theory to evaluate the effectiveness of their new practice/changed practice

Illustrations of these are reported in Table 3.

Table 3. Different ways of relating theory to practice.

Link between theory and practice	Example quotation
Realising that named teaching practices had some basis in theory	'I now understand this kind of task [when I would ask the students to perform activities such as brainstorming as a group] to be an example of "social constructivism". Social constructivism is a key principle of modern teaching pedagogy drawing on a broad church of theorists including Dewey, Bruner, Piaget and Vygotsky' (Tom)
Using theory to analyse and critique their own previous and current teaching practice, and / or the broader cultural and educational contexts in which they have practised / practise	'One of the biggest challenges that I feel faced by myself in teaching a class is moving on from the practice of just "delivering" a lecture to the students and adopting the active learning approach to teaching.' (Ali)
	'I feel my feedback to them in such cases (where students lack academic reading skills) is not accessible and hinders their understanding what is a good performance (Nicol and Macfarlane Dick, 2006).' (Natasha)
Using theory to critique/review the PGCertHE course	These three activities (of the PGCertHE module) were successful in facilitating learning, first because they showed the benefits of peer-to-peer learning (Baume and Scanlon principle 6).' (Cilla)
Using theory to plan future changes to their own practice	'It (the module) has contributed to the idea of moving away from lecture mode to more student-centred teaching, to the importance of writing clear LOs, of the role of AL (Assessment for Learning), formative assessment. And even though I have not been able to put all that I have learnt into practice yet, I very much look forward to the start of the new academic year.' (Cilla)
Using theory make changes to their own practice to and/ or justify previous changes to practice	'After this (conceptual) progression now I give mini lectures to introduce concepts and incorporate problem-solving activities in between lectures which allows me to give students formative feedback' (Diana)
Using theory to evaluate the effectiveness of their new practice for student learning	'My (previous) role as a lecturer was just to moderate their discussion (guide on the side). In this (new student-led) approach, I found that students were more engaged, they communicated with each other, they shared their ideas, they commented, they agreed, they disagreed, they brought a lot of relevant examples into discussion and so on.'(Ayam)

All the students who passed the module demonstrated at least one of these theory-to-practice connections, as this was one of the marking criteria mentioned earlier. Using theory to critique own practice was very common in this sample, whereas examples of actual change in practice, justifying change or evaluation of practice were rare although plans for changing practice were more often mentioned. As noted previously, participants had very different opportunities to change their practice over the course of the module. It takes time, and confidence, and sometimes also permission, to make changes to classroom practice. And some teachers have much more freedom than others to make changes to practice: some participants were distance teachers only and distance learning courses are often more highly prescribed than face-to-face courses, although some face-to-face teaching institutions also require teachers to use set teaching materials, sometimes including detailed scripts and class timetables.

Further discussion

All the participants reported at least one upward Kugel transition between stages in their conception of teaching. This upward transition seems very likely to be directly influenced

by the module, as the participants refer to literature associated with the topics included in the Module such as assessment, and to module activities – particularly the peer review workshops. For some higher performers, including Ayam, Cilla, George, Daniella, Wassim and Tom, there was a strong shift to levels 4 and 5, although it is worth pointing out their assignments were not judged on progress alone, and other factors will have influenced the performance outcomes, such as writing skills.

It was not only high-performing participants who showed a conceptual shift. Participants who started off at Kugel levels 1 or 2, such as Ali or Moses, made a shift in conceptual thinking towards level 3, and from teaching to learning. Diana, who obtained a pass, showed a more modest shift from 3 to 4. It may be that she could have gone further, but was limited in some way, perhaps by time or academic writing skills. All participants showed evidence of motivation to change their practice, including Ali who did not meet the pass standards in time for the assessment. The aim of the module and the assessment to have an ipsative component seems to be working, in that the starting point of the student is recognisable and acknowledged.

There is less reported impact on participants' plans and new practice than there is on conceptual thinking. This is consistent with other literature (Gunn and Fisk 2013). Conceptual thinking and actions may be out of step. For example, Ayam understood self-regulated learning, but was not yet putting this into his practice, while Cilla was highly self-critical but making only tentative steps to change her practice in this short timescale. Fred was strong on introducing new level 4 or 5 practices without articulating why these are important and appeared to be changing practice without understanding why and how it works. This lack of understanding is not desirable, as successful practice may not be transferable: what is appropriate in one student context or discipline may not be useful in another. However, any inconsistency between theory or conception and practice provides a possible teaching moment, a possible learning moment, through surfacing, exploring and seeking to resolve the inconsistency.

From this study it seems that there may be four possible stages for applying theory to practice before a change in practice emerges – the first four of the six approaches described above. These are each valuable steps, and should be recognised, even if a significant change in practice is not reported by the teacher and the stages may not all be prerequisites for change. It is worth noting that the diversity of university contexts, disciplines, artefacts such as course handbooks and unknown lecturer experiences – in the 'black box' of academic life (Zukas and Malcolm 2019) – means that there could be wide and unpredictable differences in the ways teachers apply theory to practice.

The relationship between theory and practice can work in the other direction. Critiquing, extending or making innovations in theory can be responses to reflected and analysed experience (Kolb 2015). The present study does not distinguish the direction of the theory-practice relationship, but it seems likely that both directions could contribute to an iterative process.

The rapid switch to online teaching and learning during the COVID-19 pandemic illustrates nicely a 'practice-based' approach (Boud and Brew 2017) to development as there was not time to run formal development courses. The pandemic may also have provoked radical change in conceptions of teaching, but it is too early to tell at the time of writing. However, the pandemic has produced an increase in individual and collective languishing (Eisele 2020) where staff are struggling to keep up. Germanier, and Puhr

2023 recognise that particularly post-pandemic university teachers have to negotiate new changes in online teaching and under stress and some may be flourishing while others are not, and this might also influence the opportunities to rethink the concepts underpinning practice.

It is also worth noting that assessment was not mentioned by some students, for example, George, while others such as Cilla clearly align assessment and teaching. This is not surprising as the participants at this stage are only halfway through the programme. In addition, not all participants may have planned or be undertaking summative assessment, this semester, or indeed ever. However, they all could explore how feedback, sometimes called formative assessment, might be addressed for the activities they design. Developing assessment literacy, that is understanding the processes that surround assessment, is challenging (Douglas Smith et al. 2013; Price et al. 2011). This module may only have just started participants on this particular journey.

Conclusion and recommendations

Although this is a small study of 12 participants, the richness of their accounts has provided us with insight into how the programme influences participants' thinking about teaching and has an impact on their professional practice and ultimately on the learning of their students. The diversity of the group, the use of technology for ipsative and peer assessment and the detail of individual development trajectories mean that this study adds to other work on the impact of PGCertHEs and other teacher training courses.

Kugel's stages of teacher development are very useful for understanding different types and rates of development of a diverse cohort, and future groups could be encouraged further to apply the levels to their reflections on progress as one of these participants did with some success. Building on shifts in conception of teaching, the six approaches of the 'theory into practice' framework suggested earlier provide a new approach to tackling the seemingly intractable problem of transformation of university teaching practice.

We recommend that developmental courses for university level teaching staff prompt, recognise and validate the steps that can occur before a change of practice is implemented and evidenced / evaluated. These include: a recognition that practice is underpinned by theory; that theory can be used to critique practice, although not necessarily lead to an immediate change in practice; that development in teaching is context dependent and may need planning, negotiation, and time to approve and implement; and that justifying and evaluating change may be challenging.

A criticism of using assessment narratives as data could be that participants might report development in thinking and practice to meet the assessment criteria and that the accounts might not be authentic. However, in our case participants' self-critique, and details of the self-reflections, which also make direct and informed references to texts and activities from the module, indicate that these are genuine and reliable reports of learning. Many participants provided, in the appendices to their assignments, convincing evidence, including student evaluations, of their enhanced practice.

Finally, the paper has not explored in depth what triggered the changes. Peer review and guided reflection and feedback are clearly important, and some key texts such as Kolb are mentioned frequently. But using theory to inform practice needs opportunity and investment in time, which the participants may not all have; or they may not feel

sufficiently confident, or supported by their institution, to take risks that might produce unsuccessful changes. This could be why it was a challenge for some to demonstrate evidence of change of practice. Further continuing support and guidance, beyond formal courses from educational developers and institutional leaders in learning and teaching, are essential for continuing teacher development. An understanding of Kugel's shifts and of the six different stages for connecting theory and practice could be invaluable for these wider stakeholders in an uncertain post-covid landscape.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Centre for Online and Distance Education, University of London.

References

Advance HE. 2011. *UK professional standards framework (PSF)*. York: Advance HE. https://www.advance-he.ac.uk/guidance/teaching-and-learning/ukpsf.

Ashwin, P. 2015. *Reflective teaching in higher education*. London: Bloomsbury.

Baume, D., and J. Rofe. in submission. "Dimensions of development as a teacher in higher education.".

Biggs, J., and C. Tang. 2011. *Teaching for quality learning at university* 4th ed. London: Society for Research into Higher education.

Boud, D., and A. Brew. 2017. Learning to teach as the development of practice. In *Theorising learning to teaching in higher education*, eds. Brenda Leibowitz, Vivienne Bozalek, and Peter Kahn, 77–92. London: Routledge.

Butcher, J., and D. Stoncel. 2012. The impact of a postgraduate certificate in teaching in higher education on university lecturers appointed for their professional expertise at a teaching-led university: 'it's made me braver'. *International Journal for Academic Development* 17, no. 2: 149–159. doi:10.1080/1360144X.2011.620107.

Chalmers, D., and D. Gardiner. 2015. The measurement and impact of university teacher development programs. *Educar* 51, no. a: 53–80. doi:10.5565/rev/educar.655.

Douglas Smith, C., K. Worsfold, L. Davies, R. Fisher, and R. McPhail. 2013. Assessment literacy and student learning: The case for explicitly developing students 'assessment literacy'. *Assessment and Evaluation in Higher Education* 38, no. 1: 44–60. doi:10.1080/02602938.2011.598636.

Eisele, P. 2020. Languishing but not giving up: Suggesting a surrender-struggle continuum as the missing piece of the mental health puzzle. *Journal of Mental Health & Clinical Psychology* 4, no. 3: 17–21. doi:10.29245/2578-2959/2020/3.1211.

Fox, D. 1983. Personal theories of teaching. *Studies in Higher Education* 8, no. 2: 151–163.

Germanier, R., and R. Puhr. 2023. Flourishing or languishing? Exploring the lived experiences of faculty negotiating the challenges of synchronous and asynchronous delivery. In *Synchronous and Asynchronous Approaches to Teaching: Higher Education Lessons in Post-Pandemic Times*, eds. P. Kumar, and J. Eisenberg. Palgrave Macmillan.

Gibbs, G., and M. Coffey. 2004. The impact of training of university teachers on their teaching skills, their approach to teaching and the approach to learning of their students. *Active Learning in Higher Education* 5, no. 1: 87–100. doi:10.1080/02602938.2011.598636.

Guile, D. 2019. The concept of "recontextualization": implications for professional, vocational and workplace learning. *Learning, Culture and Social Interaction* 23: 100343. doi:10.1016/j.lcsi.2019.100343.

Gunn, V., and A. Fisk. 2013. *Considering teaching excellence in higher education: 2007-2013 A literature review since the CHERI report 2007*. York: Higher Education Academy.

Guskey, T.R. 2004. Continuing professional development: does it make a difference? *Educational Leadership* 59, no. 6: 45–51. https://doi.org/10.1111/j.1362-1017.2004.00071.

Hénard, F. 2010. *Learning our lesson: Review of quality teaching in higher education*. Paris: OECD. Accessed February 3, 2022. http://www.oecd.org/edu/imhe/44058352.pdf.

Ho, A. 1998. A conceptual change staff development programme: Effects as perceived by the participants. *International Journal for Academic Development* 3, no. 1: 24–38. doi:10.1080/1360144980030105.

Hughes, G. 2014. *Ipsative assessment: motivation through marking progress*. Basingstoke: Palgrave Macmillan.

Hughes, G. 2019. *Systematic peer reviewing versus a discussion forum for promoting online learner success: evaluation of innovative learning design for postgraduate students*. Paper presented at the World Conference on Online learning, Dublin, November. https://wcol2019.ie/conference_papers.

Kember, D. 1997. A reconceptualisation of the research into university academics' conceptions of teaching. *Learning and Instruction* 7, no. 3: 255–275. doi:10.1016/S0959-4752(96)00028-X.

Kolb, D. 2015. *Experiential learning* (1st ed). Upper Saddle River, NJ: Pearson Education.

Kugel, P. 1993. How professors develop as teachers. *Studies in Higher Education* 18, no. 3: 315–328. doi:10.1080/03075079312331382241.

Laurillard, D. 2002. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. London: RoutledgeFalmer.

Marton, F., and R. Säljö. 1984. Approaches to learning. In *The experience of learning*, eds. F. Marton, D. Hounsell, and N. Entwistle, 39–58. Edinburgh: Scottish Academic Press.

Nicholls, G. 2005. New lecturers' constructions of learning, teaching and research in higher education. *Studies in Higher Education* 30, no. 5: 611–625. doi:10.1080/03075070500249328.

Nicol, D., and D. Macfarlane-Dick. 2006. Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education* 31, no. 2: 199–218. doi:10.1080/03075070600572090.

Ödalen, J., D. Brommesson, G. Ó. Erlingsson, J. K. Schaffer, and M. Fogelgren. 2019. Teaching university teachers to become better teachers: the effects of pedagogical training courses at six Swedish universities. *Higher Education Research & Development* 38, no. 2: 339–353. doi:10.1080/07294360.2018.1512955.

Parsons, D., I. Hill, J. Holland, and D. Willis. 2012. *Impact of teaching development programmes in higher education*. HEA Research Series.

Pratt, D. 1998. *Five perspectives on teaching in adult and higher education*. 1st ed. Melbourne, FL: Krieger Publishing Co.

Price, M., J. Carroll, B. O'Donovan, and C. Rust. 2011. If I was going there I wouldn't start from here: a critical commentary on current assessment practice. *Assessment and Evaluation in Higher Education* 36, no. 4: 479–492. doi:10.1080/02602930903512883.

Quinn, L., and J.-A. Vorster. 2015. Pedagogy for fostering criticality, reflectivity and praxis in a course on teaching for lecturers. *Assessment & Evaluation in Higher Education* 41, no. 7: 1100–1113. doi:10.1080/02602938.2015.1066756.

Ramsden, P. 1993. *Learning to teach in higher education*. 1st ed. London: RoutledgeFalmer.

Rienties, B., N. Brouwer, and S. Lygo-Baker. 2013. The effects of online professional development on higher education teachers' beliefs and intentions towards learning facilitation and technology. *Teaching and Teacher Education* 29: 122–131. doi:10.1016/j.tate.2012.09.002.

Stes, A., L. Coertjens, and P. Van Petegem. 2010. Instructional development for teachers in higher education: impact on teaching approach. *Higher Education* 60, no. 2: 187–204. doi:10.1007/s10734-009-9294-x.

Stes, A., M. Min-Leliveld, D. Gijbels, and P. Van Petegem. 2010. The impact of instructional development in higher education: The state-of-the-art of the research. *Educational Research Review* 5, no. 1: 25–49. doi:10.1016/j.edurev.2009.07.001.

Strang, L., J. Bélanger, C. Manville, and C. Mead. 2016. *Review of the research literature on defining and demonstrating quality teaching and impact in higher education*. York: Higher Education Academy in partnership with RAND Europe. https://www.heacademy.ac.uk/system/files/resources/defining_and_demonstrating_teaching_quality_and_impact.pdf.

Trigwell, K., and M. Prosser. 1996. Congruence between intention and strategy in science teachers' approach to teaching. *Higher Education* 32: 77–87. doi:10.1007/BF00139219.

Trigwell, K., M. Prosser, and P. Taylor. 1994. Qualitative differences in approaches to teaching first year university science. *Higher Education* 27, no. 1: 75–84. doi:10.1007/BF01383761.

Welikala, T., and C. Watkins. 2012. *Improving intercultural learning experiences in higher education*. 1st ed. London: Institute of Education Press.

Zimmerman, B.J. 2002. Becoming a self-regulated learner. *Theory into Practice* 41, no. 2: 64–70. doi:10.1207/s15430421tip4102_2.

Zukas, M., and J. Malcolm. 2019. Reassembling academic work: a sociomaterial investigation of academic learning. *Studies in Continuing Education* 41, no. 3: 259–276. doi:10.1080/0158037X.2018.1482861.