

# Promoting student engagement by strengthening the link between research and teaching in Higher Education: an early career researcher perspective

Tasnima Aktar & Laura Oxley

To cite this article: Tasnima Aktar & Laura Oxley (2019) Promoting student engagement by strengthening the link between research and teaching in Higher Education: an early career researcher perspective, *Higher Education Pedagogies*, 4:1, 167-179, DOI: [10.1080/23752696.2019.1669205](https://doi.org/10.1080/23752696.2019.1669205)

To link to this article: <https://doi.org/10.1080/23752696.2019.1669205>



© 2019 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 08 Oct 2019.



Submit your article to this journal [↗](#)



Article views: 727



View related articles [↗](#)



View Crossmark data [↗](#)

## Promoting student engagement by strengthening the link between research and teaching in Higher Education: an early career researcher perspective

Taslima Aktar  and Laura Oxley

Education, Department of Education, University of York, York, United Kingdom of Great Britain and Northern Ireland

### ABSTRACT

Having the opportunity to teach is a valuable experience to those starting out in the world of academia. In this article, the authors cast a reflective lens on their experiences of teaching and their participation in a structured programme York Learning and Teaching Award (YLTA), designed for new and aspiring academics and working towards becoming an Associate Fellow of The Higher Education Academy (AFHEA). They consider how research and teaching could be more closely linked in Higher Education and suggest benefits that could be gained from this link. In particular, they explore how strengthening the link between research and teaching in Higher Education could promote positive student engagement.

### ARTICLE HISTORY

Received 3 September 2018  
Revised 12 August 2019  
Accepted 11 September 2019

### KEYWORDS

Research in teaching;  
student engagement;  
reflection; Higher Education;  
early career researcher

## Introduction

Starting out in the world of academia can be a difficult journey. Whilst some PhD researchers will be in the fortunate position of already having experience of teaching in Higher Education prior to commencing their study, for those who do not have this experience, the chance to teach in Higher Education whilst still a PhD candidate is a valuable opportunity. Combined with additional support to develop pedagogical skills and knowledge, this creates a firm foundation from which to take the next step into academic teaching.

As PhD researchers at the University of York, UK, we chose to participate in a UK Professional Standards Framework (PSF) (Advance HE, 2018) informed 9-month Higher Education Academy accredited programme. This programme is known as the York Learning and Teaching Award (YLTA) which is designed for new and aspiring academics. In this paper, we discuss our reflections on our experiences of teaching as Graduate Teaching Assistants (GTAs) in Higher Education at the University of York and of participating in the YLTA programme. In particular, we draw on our YLTA experience to consider how student engagement can be further promoted through the closer linking of research and teaching. The first half of this paper discusses theories of

**CONTACT** Taslima Aktar  [ta647@york.ac.uk](mailto:ta647@york.ac.uk)  Education, Department of Education, University of York, York YO10 5DD, United Kingdom of Great Britain and Northern Ireland

© 2019 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 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

teaching reflection, research led teaching and student engagement, before moving on to explore our reflections on teaching practice in the second half.

### **YLTA programme and teaching as a GTA**

We found the experience of teaching and participation in the structured YLTA programme for new and aspiring academics to be hugely positive. As suggested by Park (2004), appropriate training for GTAs can enhance the learning experience for both the teacher and the students, and GTAs who engage with training develop into more effective teachers than those without this support. For this YLTA programme, we actively participated in all the YLTA training support which was divided into four strands: Supporting Student Learning in Higher Education; Pedagogic and Academic Practice; Learning and Teaching Symposium, Professional Practice; and Academic Career Development. Along with reading literature on teaching and learning theories and attending seminars, workshops and lectures offered by YLTA, we as GTAs taught in the form of seminars and workshops at the postgraduate level in the Department of Education.

The 9-month accredited programme YLTA is offered by the Research Excellence Training Team (RETT) at the University of York and upon successful completion of the YLTA, we were awarded the title of 'Associate Fellow of the Higher Education Academy' (AFHEA), UK in 2016. During this YLTA programme, we worked with other like-minded PhD students aspiring to be academics in designing, delivering, evaluating and reflecting on our teaching and demonstrating. In addition to the training support offered by the RETT, the whole process ended with the construction of an online YLTA portfolio via Google Sites as part of the final assessment. This was supervised and mentored by an academic member of staff for each YLTA participant with a view to helping develop our academic careers by reflecting on our teaching and assessing experiences.

Upon completion of our teaching commitment, we reflected on it initially in the YLTA symposia and finally in the YLTA e-portfolio to be assessed in successfully completing YLTA programme and becoming an Associate Fellow of The Higher Education Academy. The portfolio was created against the following learning outcomes: demonstrating the use of appropriate teaching methods to meet particular student needs and contexts, constructing session plans including learning outcomes, content and feedback mechanisms, explaining how pedagogic theory and research informs our own teaching, learning and assessment practice, evaluating the alignment of the design, the teaching and the assessment used in a module on which we teach, applying the principles of good marking and feedback to student work, and reflecting on an aspect of academic practice of handling a difficult situation while teaching (p.7, YLTA Handbook, 2015). Thus created, the portfolio also provided evidence of engagement with the UK Professional Standards Framework (PSF). To this end, we had to make continuous reflections on our teaching and associated practice.

### **Teaching context**

Whilst engaging with theories of learning and teaching from the scheduled seminars and workshops offered by YLTA programme, we also gained hands-on experience of

conducting classes through teaching, facilitating and engaging students in real-life situations in the Department of Education. Teaching as GTAs under module leaders in the department offered us the opportunities to prepare for the classes; managing classroom dynamics along with delivering the content and providing feedback and assessment.

For ease of reading, the two authors of this paper will be referred to as author A and author B. Whilst author B facilitated seminars for the Masters level module Research Methodology in Education in Autumn term, author A facilitated seminar workshops on the Masters level module Planning and Communicating Research in the Spring term with the same cohort of students who were developing research skills for their MA dissertation in the Summer term. In Autumn term, author B facilitated the seminars on research methodology with the aim of understanding the definitions, types, theories and methods related to research. In Spring term, author A facilitated workshops on planning a research project with the end aim of preparing a research proposal, creating information and consent forms, and completing ethics audit forms with the same cohort of students who took the previous module. Whilst the first module is mostly theoretical, the second one is focussed on practical skills. Based on their knowledge and experience from these two modules, the students were expected to finally carry out their own MA research projects and produce their MA dissertations.

### ***Models of teaching reflection***

There are several different models of reflection available for practitioners to use to inform their teaching practice. This section gives a brief overview of four models of reflection, followed by the adoption of one to illustrate how we reflected on our own teaching practice.

Whilst Dewey (1933) is often thought of as the founder of reflective practice, developing on the work of Dewey further Schön (1983) made a more explicit link between professional development and professional practice. Dewey made the distinction between the passive recall of an event and reflection as a deliberate and active process. He described reflection as ‘an active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and further conclusions to which it leads’ (Dewey, 1933, p. 118). Schön (1983) highlighted that through reflection, practitioners can make tacit knowledge known, drawing out the theory that underpins instinctive practice. He distinguished between two types of reflection: ‘reflection on action’ and ‘reflection in action’. He describes reflection in action as ‘thinking on your feet’, whereas reflection on action is a deliberate process taken retrospectively. One critique of both Dewey (1933) and Schön (1983) has been that their theories of reflection do not sufficiently take emotions into account. Boud, Keogh, and Walker (1985) make the assertion that, in order to learn from reflection, a practitioner needs to consider the emotions that are associated with the event they are reflecting on. They argue that strong emotions can have an impact on the way events are remembered during reflection and that, by ignoring the potential impact of emotions, learning from reflection may not be fully realised.

Kolb’s experiential learning cycle (1984), on the other hand, offers a four-cycle framework for practitioners to use in their reflections and we chose to use this

framework as an appropriate one to reflect on our YLTA and GTA experiences. There are four parts to Kolb's learning cycle: Concrete Experience, which involves having the actual experience; Reflective Observation, which involves reviewing the experience; Abstract Conceptualisation, which involves learning from the experience; and Active Implementation, which involves putting what has been learnt into practice. This then leads on to the cycle beginning again, as the practitioner has the concrete experience of trying the change to their practice. We decided to use Kolb's experiential learning cycle as our primary model for reflection throughout our experiences on the YLTA programme as it was felt that the clear framework offered by the four-part cycle would be the most appropriate for continuous professional development for those new to reflective teaching practice in Higher Education.

### ***Inspiring an interest in research-informed teaching***

Student engagement is deemed to be the first and foremost issue of successful teaching. A broad body of literature has found robust correlations between student engagement and positive outcomes, including academic achievement and student satisfaction (Trowler, 2010). Again, fostering student engagement in the classroom is one of the important classroom dynamics in facilitating successful learning (Trowler, 2010). In a diverse community of students of a modern university class, it is important to understand how and when to foster interactions and engagement being mindful to positive learning experience and inclusivity. In teaching, it takes different forms which we found can include engagement between learner and teacher, learner and learner, and with learning materials/activities. In the case of both teacher-student engagement and engagement with the materials, we found it very useful and motivating to link research in teaching. In our experience, the students seemed more enthusiastic and attentive in the classroom when they were exposed to real-life research works.

Connecting research with teaching, in our experience, makes the lesson more authentic and interesting. Therefore, nexus between research and teaching can be a fruitful path for promoting engagement and better learning experience in Higher Education. Simons and Elen (2007) suggest that research represents learning processes and therefore it can be functional for teaching. The researcher in this case becomes an 'expert learner' and facilitates the learning of the students.

### ***The benefits of linking research and teaching***

Staff research and student teaching can often be seen as two distinct activities. Jenkins and Healey (2013) suggest that institutional contexts may obstruct the aim of bringing a research orientation to teaching in Higher Education. To be able to be an outstanding researcher requires a certain set of skills which may not obviously overlap with the skill set needed to be an outstanding teacher (Simons & Elen, 2007). This can be seen in the evaluation criteria of the Research Excellence Framework (REF) and the Teaching Excellence and Student Outcomes Framework (TEF). These are separate frameworks with distinct criteria to be met. However, together they can support each other to improve quality in Higher Education.

Whilst the TEF assesses excellence in teaching and considers how well Higher Education institutions ensure excellent outcomes for students in regard to graduate-level employment or further study (Office for Students, 2019), the purpose of the REF is to assess research output from Higher Education institutions. All Higher Education institutions are expected to meet national quality standards for teaching and the TEF assesses what is being done beyond these standards and institutions are awarded bronze, silver or gold for teaching excellence. The REF process provides accountability for public investment in research; establishes reputational benchmarks; and informs the selective allocation of funding for research (Research Excellence Framework, 2019). Despite their distinct criteria and purposes, there are similarities between the TEF and the REF: both are intended to improve quality in Higher Education. Linking research to teaching activities can potentially drive improvement in both areas, with research supporting teaching and teaching supporting research (Robertson, 2007). However, having separate policies for research and teaching risks creating a false dichotomy and could potentially cause institutions to feel that they have to make a choice about which to focus on. Tierney (2016) postulates that a gulf can already be identified between research-focussed and teaching-focussed academics, with two distinct communities developing.

It could also be argued that teaching and research activities may appeal to different people. If someone is interested in becoming an academic researcher, it does not necessarily mean that they are also interested in teaching. On the other hand, early career academics who are interested in teaching only positions in Higher Education may find it difficult to establish a teaching-focussed academic career (Hubbard, Gretton, Jones, & Tallents, 2015). However, in the Higher Education employment market, it is often essential to be able to perform to a high standard both as a researcher and a teacher. Simons and Elen (2007, p. 622) suggest that researchers, who are also teachers in Higher Education institution, should learn to ‘design and deliver optimal research-based teaching’.

The connection between research and teaching can be traced back to that advocated by Von Humboldt in the nineteenth Century (Simons & Elen, 2007). Indeed, Elsen, Visser-Wijnveen, and van Driel (2009, p. 67) suggest that, for many academics, a strong connection between research and teaching is an ‘essential part of their job satisfaction’. Jenkins and Healey (2013, p. 131) acknowledge that, while some may see the ‘central role of the university to be teaching’, it can be considered that teaching and research are interconnected through what they term the ‘teaching-research’ nexus. ‘Researcher-teachers’, who are able to combine their own research with high-quality teaching, can benefit from this dual role (Oxley, 2016). In addition, there can be many benefits to the students who are engaging with this style of teaching (Elsen et al., 2009).

For Higher Education staff, incorporating aspects of their own research into their teaching can provide an opportunity to raise awareness in their area of expertise. Done skilfully, this is a chance to interest students in their field which may inspire those students to go on to further study in the researcher-teacher’s specialist area (Robertson, 2007). Teaching of research concepts can provide the opportunity for researchers to ‘try out’ research ideas and make sense of ideas by talking and ‘probing questions and unexpected perspectives from students’ can lead to new research ideas and directions (Robertson, 2007, p. 550). Depending on the academic level that the students are

working at, this is also a way of practicing explaining research to a non-expert audience and ensuring that it is easily understandable; thus, the process is also instrumental to encourage future public engagement events and raise awareness of the research among non-specialists.

Incorporating aspects of practical research into Higher Education teaching can enhance students' interest in the course as they are able to see how their studies could lead to 'real world' application. Students benefit from the experience of learning about cutting edge research direct from the person who is conducting it (Elsen et al., 2009). As well as being able to learn about the content of the research, students are also able to learn from the researcher-teacher's own experiences (Robertson, 2007). Sharing personal experiences, successes and pitfalls can help students to understand what a career in research involves. It could even support them to avoid the same pitfalls themselves in the future.

### **Ways that research and teaching can be linked**

In a number of ways, research can be incorporated into teaching in Higher Education. Four suggestions are offered by Healey and Jenkins (2009): research-led, research-oriented, research-based and research-tutored. They make a distinction between teaching in which the students are involved as active participants and teaching in which students are an audience. There is also a distinction made between teaching focussed on the content of the research and teaching focussed on the process of research.

Research-led teaching has an emphasis on the content of the research. In contrast, research-oriented teaching has an emphasis on the research process itself. This is another approach that treats students as an audience. Whilst the former one provides an opportunity for the students to learn about current research being conducted in the relevant discipline, the latter enables students to develop their research and enquiry skills and techniques.

Research-tutored teaching returns to an emphasis on the content of the research but encourages students to actively participate and engage in research discussions. Finally, research-based teaching gives student the opportunity to actively participate in undertaking research and inquiry, with a focus on the research process itself (Healey & Jenkins, 2009).

Healey and Jenkins (2009), however, do not advocate that any one of these ways is better than another. They acknowledge that the most appropriate way of incorporating research into teaching will vary depending on the context. All four ways could even be incorporated together in a single curricula or program.

There are occasionally barriers that need to be overcome for a researcher-teacher to effectively incorporate research into their teaching. One potential difficulty could arise if the course that the researcher-teacher is leading is not relevant to their research area. In this case, it is helpful to try and think creatively. Often there will be some aspects of their research which can be related to the course, even if this is not immediately obvious. For example, if the content is not relevant, perhaps the research methods are. Alternatively, the researcher-teacher could draw on previous projects if their current research is not appropriate to incorporate. Another potential issue is that of managing to fit aspects of research into courses already over-laden with content.

Ultimately this is an issue which the aspiring researcher-teacher will need to discuss with their course leader. In the meantime, it may be possible to skilfully weave references to research into existing course content. If used appropriately, this approach could enhance the student learning experience and further promote student engagement (Elsen et al., 2009).

### ***Defining student engagement***

There are diverse opinions in the literature about how student engagement can best be defined. Krause and Coates (2008) define student engagement as being the extent to which students engage in activities shown to be linked with high-quality learning outcomes. Along a similar line of thought, Hu and Kuh (2002) define it as the quality of effort that students devote to educationally purposeful activities which contribute directly to desired learning outcomes. However, other definitions consider student engagement to be the process by which institutions attempt to involve students in shaping their learning experience (HEFCE, 2008).

Within the context of this article, student engagement refers to the extent to which students meaningfully participate in learning experiences within the classroom, leading to the attainment of desired learning outcomes. In this respect, the definition by Krause and Coates (2008), described above, would be the most appropriate.

### ***Promoting student engagement through research in teaching***

Students' engagement can be promoted through linking research into teaching. Incorporating research is more motivating for students, and therefore more engaging (Elsen et al., 2009).

Students will be motivated to engage themselves with the content as well as the design of the piece of research done by their teachers as they will find they are learning with empirical research evidence and will learn how this knowledge is generated. Thus, incorporating evidence-informed approaches and outcome from research into teaching also ensures professional values as prescribed by UK Professional Standards Framework (PSF) (Advance HE, 2018). In addition, in the classroom the students will feel more motivated to engage with both the teacher and the material; even more so if the teachers have the opportunity to bring their own research work into the classroom (Elsen et al., 2009). Here a teacher is a resource person which is also beneficial in building trust among the students towards their teacher. When teachers incorporated their own research into their teaching, students were more likely to perceive their course as being intellectually exciting and to believe that staff were enthusiastic about what they were teaching, and students are even more motivated when they become familiar with the research done by academics at an early stage in their studies (Elsen et al., 2009).

Engaging students can be promoted by any or all of the ways suggested by Healey and Jenkins (2009), as discussed earlier in this article. More than one way of linking research and teaching can be used in a single module or programme. For example, students may be encouraged to engage in research conducted by the teachers teaching them in a research-led approach. Alternatively, a research-based approach may involve the students conducting a small-scale project of their own or participating in an on-



going project being conducted by their teacher. ‘This means that students become producers of knowledge not just consumers. Thus, students will be exposed to experiential learning which emphasises the process by which knowledge is created through experience (Kolb, 1984). The suggestion is to make an appropriate balance of incorporating four categories given the curriculum, the students one is teaching, the type of subject and the discipline as well as the departmental and institutional culture.

### ***Reflections on teaching practice***

We had the opportunity to demonstrate our use of research-led teaching theory within our teaching practice during our time on the YLTA programme. Reflecting on teaching practice was an important skill that the programme aimed to encourage and develop.

As described above, we made use of Kolb’s experiential learning cycle as our primary model for reflection. This is illustrated by the following example from author B’s teaching practice. In a seminar on research methods, all the students were international students with English as a second language and author B had not worked with them before. This was a new challenge for author B and was highlighted as an area for reflection following an occasion where some of the students had not come across the term ‘census’ before (Concrete Experience). Author B reviewed this experience by completing a Reflective Learning Log and considered that, while the students were clearly academically able, their knowledge of the English language was creating a barrier to their learning (Reflective Observation). Following this, author B decided that whenever a new term was to be introduced, particularly words that are not in common usage and may be specific to the academic discipline that they would ensure a clear explanation was given of what the term meant and would check with the students that they understood by asking them (Abstract Conceptualisation). Author B was able to begin implementing this change at the next seminar, ensuring that this barrier to learning was overcome (Active Implementation). Learning about designing a research proposal while actually conducting ‘practice’ research projects is also an example of experiential learning when learning takes place by experiencing it.

### ***Research-oriented teaching in practice***

Research-oriented teaching was the approach we used to facilitate seminars on research methods and research planning during completion of the YLTA programme. With a focus on research processes, author B was able to share her own experiences in research with the students and offer constructive guidance on conducting their own research. Author A facilitated the workshops on implementing their research knowledge in order to conduct their small-scale research projects; the students planned for their research by preparing their research proposal and completing informed consent and ethics forms. This was an appropriate method for teaching and learning in this subject area and at the level of the academic programme, which was Masters modules in educational research methods and planning and communicating research. This links to PSF Core Knowledge descriptor K2: Appropriate methods for teaching, learning and

assessing in the subject area and at the level of the academic programme (Advance HE, 2018).

During the YLTA programme, author B hoped to develop her teaching to be research-based. However, time constraints and lack of control over the course content meant that this was not possible in the time available, but it is a direction to be pursued for future personal and professional development.

### **Engaging students through engaging teaching methods**

Ensuring that appropriate teaching methods were used, within a Higher Education classroom environment, to encourage the students to meaningfully participate in learning experiences was one of the key aims of the YLTA programme. Activities throughout the YLTA programme supported participants to effectively link students' learning experiences in the classroom with desired learning outcomes. Guidance was given on developing session plans with intended learning outcomes using Bloom's 1956 taxonomy and including the rationale for each learning activity.

To engage students in developing research proposals against proposed topic ideas, author A facilitated most of the activities in collaboration, in pairs or groups, as influenced by Vygotsky's (1980) Zone of Proximal Development (ZPD) [PSF: V3: Use evidence-informed approaches and the outcomes from research, scholarship and continuing professional development]. Vygotsky's (1980) ZPD refers to the difference between what a learner can do without help and what they can do with the guidance and encouragement of a skilled partner. Encouraging the students to work collaboratively on developing research proposals gave them the opportunity to learn from each other's ideas and experiences. Students were able to support their peers in areas where they themselves were more skilled and equally able to be guided by their peers in areas where they were less confident.

Collaborative classroom strategies like group problem solving, pair discussion, buzz group activities were employed to engage students with subject material, and the progression of the activities started with revision of key concepts to creating, e.g. research design and strategy which also reflected Bloom's (1956) taxonomy of learning activities. These link to the PSF Professional Values descriptor V3: Use evidence-informed approaches and the outcomes from research, scholarship and continuing professional development. This engagement in the forms of student-material, student-student and student-teacher is also appreciated as an impactful teaching method by the observers: *[Author A] ... has good rapport with the group, and they were engaging well with the material and interacting with the session.* Both Vygotsky's collaborative learning and Bloom's taxonomy of learning foster critical thinking and deep learning among students, which also link to PSF Areas of Activity descriptors A1: Design and plan learning activities and/or programmes of study, and A2: Teach and/or support learning.

Often in the classroom, we as teachers face the difficulties of dealing with non-response, and from personal experiences in the classroom, we come up with the finding that teachers can motivate by sharing their personal knowledge and experience of their research works. Thus, in our experience, this appears to be a very effective method of fostering beneficial interaction between student-teacher, students-materials and even students-students. This made a huge impact towards the end of the module workshops

by author A, as evidenced in a student's feedback: *the knowledge was also practised with certain examples from teacher's own research experience which is much more impressive*, which links to PSF Professional Values descriptor V2: Promote participation in higher education and equality of opportunity for learners, and Core Knowledge descriptor K1: The subject material.

When facilitating seminars and workshops, author B was able to draw on personal experience of using a variety of research methods to add depth to the introductory seminars and to engage the students with how these methods can be applied in the real world and author A was able to share her own experience of preparing her own MA and PhD research proposals to inspire students and offer a sample structure of the research proposal. In preparing proposal, step by step students were developing hands-on experience of preparing research proposals on pretend research ideas prescribed by the teacher. Teaching of each step follows Blooms' (1956) taxonomy: from revising the research terms learnt in previous module author A taught to deciding on their research questions/design/methods/data collection tools for practice research proposal, with the help from teacher's knowledge and experience of preparing proposal, which links to PSF Core Knowledge descriptor K2: Appropriate methods for teaching, learning and assessing in the subject area and at the level of the programme of study.

### **Reflecting on research-informed teaching**

Encouraging students to undertake their own research and experience the different methods for themselves was possible for some seminars; for example, the students were asked to design and carry out a short interview prior to one seminar and a short, written survey prior to another. This is an example of Healey and Jenkins (2009) research-based teaching in action, with the students actively participating to learn about research processes. An observation from author B's teaching mentor on the YLTA programme included comments on how the author B had linked her teaching with her own research, suggesting that this was an effective teaching strategy. Author B's mentor commented that: *The lesson was an exploration of research methods. [Author B's] own research experience helped her guide the students from a position of strength*. The mentor linked this to the PSF Area of Activity A5: Engage in continuing professional development in subjects/disciplines and their pedagogy, incorporating research, scholarship and the evaluation of professional practice (Advance HE, 2018).

For author A, the proposed topic ideas for developing proposals in planning and communicating research module were chosen from existing MA projects in the department, so students had a direct idea of types of research work in the department and how they were conducted from these projects. While producing these proposals students were motivated by the teacher's experience of developing her own PhD proposal in the same department. It arose interests among the students as evidenced in both students' and observers' feedback. This is an example of Healey and Jenkins (2009) both research-oriented and research-based teaching, with the students learning about research design and methods while actively involved in preparing a demo research proposal with a view to creating their own research proposals for MA dissertation next term. As such, the four ways of engaging students with research and inquiry are not

independent; many subjects may contain elements of more than one approach (Jenkins & Healey, 2013).

Being able to demonstrate the use of appropriate teaching strategies to meet the students' needs and context is one of the key learning outcomes of the YLTA programme. We acknowledge that some students may struggle with the research-informed teaching approaches used. This can be a particular barrier if students have previously been used to education systems that do not encourage active participation and discussion. However, this can be overcome with supportive and inclusive teaching which encourages all students to engage. We were able to develop our skills in this area throughout our time on the YLTA programme. As commented by author B's mentor, the teaching methods employed took account of *the way [that] most of the group had come from education systems that did not necessarily encourage discussion* and that author B coped well with facilitating research-informed teaching within this group.

### **Seeking student feedback**

Whilst teaching, both oral and written feedback were sought from the students. In each of the seminars, implicit feedback was elicited by interrogation in different ways on their understanding and points of struggle. Written feedback was gathered at the end of the module to assess whether students felt the learning outcomes had been met and to ask for any additional comments. Student feedback indicated that the research-informed aspect of the teaching was motivating and interesting. Students were asked to give feedback on this aspect of teaching and the comments given were positive. A typical example of the feedback is illustrated by a student who agreed that the aims of the session were completely met by the teaching methods used and stated: *I am extremely happy with this*. Other examples are illustrated by email received from students following the end of the module, which stated: *You make research methods more interesting! We have learnt a lot from you, and I learned the procedure of the proposal design and the respective knowledge in different part ... The discussion in the class was great*. Requesting feedback from students is one method for evaluating the effectiveness of teaching, which links to PSF Core Knowledge descriptor K5: Methods for evaluating the effectiveness of teaching (Advance HE, 2018).

### **Participating in the YLTA symposium**

On reflection, the YLTA Symposium was an opportunity for us each to present what we have learnt about teaching, learning and assessment in Higher Education during the programme; an opportunity to reflect on our teaching experiences; and to think about what evidence we could use to illustrate our suitability for a university teaching position. In the symposia, author A presented on the theme 'Engaging students in learning in the modern university' while author B presented on 'Linking Research in Teaching', by consulting knowledge of teaching and learning theories and reflecting on our teaching experiences; the themes proposed by the YLTA programme. Feedback from the symposium audience, which included academics, support staff, research students and invited guests, was hugely constructive. In doing the presentations and

as reflected in our presentations, the topics inspired both of us to consider in more depth how we could integrate research into teaching to promote student engagement.

One of the key learning outcomes of the YLTA programme is to explain how pedagogic theory and research informs our own teaching, learning and assessment practice. Our experiences on the YLTA programme informed our developing teaching practice and stimulated an interest in research-informed teaching, particularly in relation to promoting student engagement. Being inspired, we also presented our ideas on our respective YLTA symposia themes at the York Learning and Teaching Forum 2016 aiming for academic staff. This experience gave us both the chance to engage with a wider audience on this topic and receive feedback from more experienced academic members of staff. These activities inspired further interest in investigating the link between research and teaching in student engagement.

## Conclusion

This article thus reflects on our experience of linking research in teaching in Higher Education and advocates the benefit of the link in promoting student engagement. There is particular relevance to those starting out in academia as it can be experienced as having conflicting demands on time (Jenkins & Healey, 2013). By intertwining research and teaching, this pitfall can be avoided. Whilst engaging students is a crucial aspect of classroom dynamics, bringing relevant research is motivating for the students; both for the authenticity of the knowledge and its generation. Student engagement can be best maintained through teaching which is relevant and fosters growth and development (Jenkins & Healey, 2013). Incorporating research into teaching is one way to meet these aims. Thus, strengthening the link between teaching and research can promote student engagement and enhance positive learning experience in any Higher Education context.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## ORCID

Taslima Aktar  <http://orcid.org/0000-0002-8058-9243>

## References

- Advance HE. (2018). *UK Professional Standards Framework (PSF)* Online. Retrieved from <https://www.heacademy.ac.uk/download/uk-professional-standards-framework-ukpsf>
- Bloom, B.S. (1956). *Taxonomy of education objectives, handbook I: The cognitive domain*. New York: David McKay Co., Inc.
- Boud, D., Keogh, R., & Walker, D. (1985). *Reflection: Turning experience into learning*. London: Kogan Page.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Chicago: Henry Regnery.

- Elsen, M., Visser-Wijnveen, G.J., & van Driel, J.H. (2009). How to strengthen the connection between research and teaching in undergraduate university education. *Higher Education Quarterly*, 63(1), 64–85. doi:10.1111/j.1468-2273.2008.00411.x
- Healey, M., & Jenkins, A. (2009). *Developing undergraduate research and enquiry*. York: The Higher Education Academy.
- HEFCE. (2008). *Tender for a study into student engagement*. Bristol: Higher Education Funding Council for England.
- Hu, S., & Kuh, G.D. (2002). Being (Dis)engaged in educationally purposeful activities: The influences of student and institutional characteristics. *Research in Higher Education*, 43(5), 555–575. doi:10.1023/A:1020114231387
- Hubbard, K., Gretton, S., Jones, K., & Tallents, L. (2015). Challenges and opportunities for early-career teaching-focussed academics in the biosciences. *F1000 Research*, 4(76). doi:10.12688/f1000research.6227.2
- Jenkins, A., & Healey, M. (2013). Research-led or research-based undergraduate curricula. In L. Hunt & D. Chalmers (Eds.), *University teaching in focus: A learning-centred approach* (pp. 128–144). Oxon: Routledge.
- Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- Krause, K., & Coates, H. (2008). Students' engagement in First-Year University. *Assessment and Evaluation in Higher Education*, 33(5), 493–505. doi:10.1080/02602930701698892
- Office for Students. (2019). *What is the TEF?* Online. Retrieved from <https://www.officeforstudents.org.uk/advice-and-guidance/teaching/what-is-the-tef/#collapse-6bd6e812-5fd5-4779-aca5-4d349d6a3774-0>
- Oxley, L. (2016). Research and Teaching: A reciprocal cycle. *Forum – University of York*, 41, 20.
- Park, C. (2004). The Graduate Teaching Assistant (GTA): Lessons from North American experience. *Teaching in Higher Education*, 9(3), 349–361. doi:10.1080/1356251042000216660
- Research Excellence Framework. (2019). *What is the REF?* Online. Retrieved from <https://www.ref.ac.uk/about/what-is-the-ref/>
- Robertson, J. (2007). Beyond the 'research/teaching nexus': Exploring the complexity of academic experience. *Studies in Higher Education*, 32(5), 541–556. doi:10.1080/03075070701476043
- Schön, D.A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Simons, M., & Elen, J. (2007). The 'research-teaching nexus' and 'education through research': An exploration of ambivalences. *Studies in Higher Education*, 32(5), 617–631. doi:10.1080/03075070701573781
- Tierney, A. (2016). Communities of practice in life sciences and the need for brokering. *F1000 Research*, 5(280). doi:10.12688/f1000research.7695.1
- Trowler, V. (2010). *Student engagement literature review*. Lancaster University: The Higher Education Academy: Lancaster.
- Vygotsky, L.S. (1980). *Mind in society: The development of higher psychological processes*. Harvard university press: Cambridge, MA.
- YLTA Handbook. 2015. Online. Retrieved from [https://vle.york.ac.uk/bbcswebdav/pid-428169-dt-content-rid-6612232\\_2/courses/YOPEN-000198/37366\\_YLTA\\_handbook%20web.pdf](https://vle.york.ac.uk/bbcswebdav/pid-428169-dt-content-rid-6612232_2/courses/YOPEN-000198/37366_YLTA_handbook%20web.pdf)