Making a difference—inclusive learning and teaching in higher education through open educational resources

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Recently there has been growing concern about the ways in which professional values such as “acknowledging diversity and promoting equality of opportunity” (Higher Education Academy (HEA), 2006, p. 4) have been understood and evidenced in higher education. In this article, we outline how the Learning to Teach Inclusively open educational resource (OER) is addressing this concern by facilitating understanding of the concepts and principles underpinning these professional values. We outline a set of principles for inclusive practice and show how they underpin not only the content of this resource, but also its design, development, and embedding. We argue that while these principles were derived from research in face-to-face teaching, they are just as relevant and applicable to learning, teaching, and curriculum design in distance learning and virtual contexts. Finally, we outline three models for embedding the OER and propose a model for embedding inclusive practice through OER across HE.

Keywords: inclusive pedagogy; open education resources; student diversity; academic development; professional values

Background and context

Over the last three decades, the UK has seen the growth of research into access to, and the non-traditional student experience of, higher education (HE). However, research into the pedagogical impact of widening participation has been relatively limited (for examples of this research, see Haggis, 2006; Hockings, Cooke, & Bowl, 2010; Northedge, 2003; Williams et al., 2010). In England, the demand for research into teaching and learning environments that are capable of securing high achievement among diverse student bodies is becoming increasingly critical for the sector in light of the following drivers:

1. the coalition government’s requirement on universities planning to charge the maximum tuition fee to demonstrate their commitment to widening access
2. the recognition of a degree attainment gap affecting black ethnic minority and male students (Broecke & Nicholls, 2007)
3. the introduction of the Equality Act 2010 that sharpens focus on how we treat “protected characteristics” in HE (i.e., age, disability, gender

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reassignment, marriage and civil partnership, race, religion or belief, sex, sexual orientation)

(4) the revisions to the UK Professional Standards Framework (UKPSF) for HE emphasizing the need for university teachers to demonstrate “respect for individual learners and diverse learning communities” (Higher Education Academy [HEA], 2011, p. 3).

In response to these drivers, many universities in England are now reviewing teaching and learning policy and strategy and considering the implications of student diversity for pedagogical practice. However, there is concern among some academic development practitioners that the professional skills and values associated with teaching diverse students are not well understood in the sector. The consultation paper and review of the UKPSF for HE (HEA, 2010, p. 25) went some way to clarify what is meant by “professional values” in terms of “respect for both individual learners and diverse learning communities” and promotion of “participation in higher education and equality of opportunity for learners.” These values are now embedded in the revised framework (HEA, 2011, p. 3). However, these concepts remain open to interpretation. In recognizing that more work would be needed to develop understanding of these professional values, the Higher Education Council for England, Joint Information Systems Committee (JISC) and the HEA funded a program of development of open materials for accredited courses (OER OMAC), one of whose key themes was the development of the inclusive curriculum. OER from this program were intended for use within academic development courses, such as the Postgraduate Certificate in Higher Education, and as distance learning resources.

Open educational practice (OEP) (Andrade et al., 2011), such as that described in this article, is now recognized and promoted by global organizations such as UNESCO and the European Economic Community and adopted by HE institutions such as the Massachusetts Institute of Technology and the UK’s Open University. According to Andrade et al., the aim of OEP is “to provide educational opportunities for all citizens” (p. 11). They suggest “extending the focus beyond ‘access’ to ‘innovative open educational practices’ (OEP)” (p. 11). This higher-order educational philosophy meshes neatly with the pedagogical approach promoted in our Learning to Teach Inclusively (LTI) open educational resource (OER) and is therefore an added driver.

In this article, we outline the ways in which we attempted to develop professional values and inclusive practice through the creation and embedding of a 30-credit module for academic teachers (http://www.wlv.ac.uk/LTImodule). We begin by outlining some of the principles of inclusive learning and teaching arising from the research. These principles apply to distance learning and virtual contexts as they do in face-to-face contexts. We discuss how they underpin not only the content of the OER LTI module but also its design and development of accessible and ethically sensitive materials illustrative of inclusive approaches. In exploring the ways in which this OER package is being, and could be, reused and repurposed, we address the question: what infrastructure and interventions are effective in developing, embedding, and extending inclusive learning and teaching in practice? Finally, we propose a tentative consortium model for wider user engagement that could be developed and repurposed by other OER producers.
Research underpinning the content and design of the OER LTI module

Research and theory underpinning module content

One of the key aims of the LTI project team was to embed and extend the findings from an earlier research project led by one of the authors. This project, Learning and Teaching for Social Diversity and Difference in HE (LTSDD), was funded by the Economic and Social Research Council under its Teaching and Learning Research Programme (University of Wolverhampton, n.d.). In the LTSDD project, common forms of teaching (e.g., lecturing) were found to be ineffective in engaging groups of students from different educational, cultural, and social backgrounds. To understand what engaged and disengaged students, the research team worked closely with teachers in two types of university across a range of subjects. Fine-grain analysis of video-recorded classroom sessions, interviews with the teachers and students, focus groups, and questionnaires led to the following key findings:

(1) Teachers’ pedagogical practice is influenced by their conceptions of knowledge generation in subject communities. While these conceptions are refracted in student learning, students also bring with them alternative approaches to knowledge and learning. Pedagogical strategies that recognize this and that harness students’ experience and existing knowledge tend to enhance the academic engagement of students in mixed groups. Propositional knowledge and theory take on relevance and meaning within the context of the lives of all students.

(2) In the case of some teachers, there is a difference between espoused views about addressing diversity and actual teaching practices. Teachers need to cultivate an awareness of the diversity in their classrooms and to coordinate interaction between students to maximize intercultural learning, address inequalities, handle tension, and deal with sensitive issues. This cultivation is best approached as the development of craft skills and of reflexivity, as in Hockings (2011).

(3) Student diversity is multifaceted. Students do not fit simplistic constructions of traditional or non-traditional student. Inclusive strategies must be formulated to stretch and academically engage all students within a safe and collaborative learning environment. In so doing, they must address the needs and interests of all students.

(4) This research suggests that when teachers academically engage groups of diverse students they tend to:

(a) create safe and inclusive spaces by getting to know students individually and by setting a code of classroom conduct that is based on participation, collaboration, sharing knowledge and experience, trust, and respect

(b) use strategies that harness students’ knowledge and experience, connecting theory and propositional knowledge to students’ lives and backgrounds

(c) prepare, choose resources, and teach in such a way that is reflexive of their own identity, beliefs, and assumptions, mindful of their impact on student learning and sensitive to the differences within the student group.

These findings and the principles of inclusive learning and teaching above are explored in detail in Hockings (2011) and Hockings et al. (2010) and apply equally
in distance learning, virtual, or face-to-face learning environments. However, for colleagues to fully understand how the principles of inclusive learning and teaching might be put into practice, it became apparent to the project team that tangible examples and resources were also needed. Therefore, in 2010, when the opportunity to develop OER OMAC arose, we responded with a proposal to develop such a package specifically for the development of inclusive learning and teaching in HE. This package would draw on the findings from the LTSDD project and subsequent research and development work. It would include a repository of over 100 video clips of authentic classroom practice illustrating inclusive learning and teaching, together with interviews with staff and students across a range of disciplines. It would include an online interactive 30-credit module that would contextualize the theory and principles and trigger discussion and reflection. This OER package, LTI, was completed and launched in September 2011 and is fully available for use and reuse. (See http://www.wlv.ac.uk/teachinclusively for details of this project.)

**Inclusive principles underpinning the design of the OER package**

Our beliefs and values about diversity and equality and our research on inclusive practice were influential in our decision to produce OER for the sector and fundamental to our design and development principles thereafter.

Our use of an OER approach itself aligns with principles of inclusivity in a variety of ways and as the report “Beyond OER: Shifting Focus to Open Educational Practices” states “open educational resources (OER) are high on the agenda of social and inclusion policies” (Andrade et al., 2011, p. 11). OER are generally understood to be “digitized materials offered freely and openly for educators, students and self-learners to use and re-use for teaching, learning and research” (Hylén, 2007, p. 10). Adoption of an OER approach enabled us to make the package available freely for reuse and so not exclusive to those who pay for it. In line with OEP, we needed to make it available using technologies that allowed repurposing, and thus not fixed and exclusive to specific teacher contexts or author perspectives.

These principles also guided our approach as to how we wanted learners (whether face-to-face or distance) to engage in inclusive learning activities. We wanted to harness their knowledge and experience and encourage them to reflect on, evaluate, and question their own and others’ beliefs and practice. We know that distance educators may not have the opportunity to get to know their students face to face. The challenge for them is to construct activities and set ground rules in order to get to know students as individuals, to build rapport, trust, and openness in a virtual space in which it is safe for all to participate and engage. Thus, whether at a distance or in the classroom, inclusive teachers focus on knowing the person and what they can bring to the learning situation in terms of their experiences and knowledge. This has huge implications for the design of activities and for the variety of tools and techniques we use in order that students can share their ideas and knowledge and engage in a deep and personal way as outlined in (c) above.

Therefore, we needed e-learning tools to facilitate our constructivist and situated pedagogy (Brown, Collins, & Duguid, 1989; Wenger, 1998) that would allow for peer critiquing, dialogic and reflective learning, and personalization (see Mayes & de Freitas, 2004, for a review of e-learning theories, frameworks, and models). Moreover, since the very subject of the OER module was inclusive practice, it was
crucial that we should practice what we preached, in line with OEP, and develop a fully accessible module and ethically sensitive materials.

Open and accessible learning development

We needed to find a platform for our OER module that all institutions and individuals would be able to access freely. Our initial idea was to develop the OER through the Open University's project area, Labspace (http://labspace.open.ac.uk/), which uses Moodle, an open access virtual learning environment used by many institutions. On closer evaluation, we found this solution did not allow for the sort of collaboration and interactivity that we were seeking, nor was it sufficiently accessible to users with disabilities. We therefore decided to render the whole module in Xerte, using Labspace and the University of Wolverhampton Web site as access routes to the module. Xerte is a "fully-featured e-learning development environment for creating rich interactivity" (University of Nottingham, 2008). It is an open source authoring tool for creating Web-based learning materials, which includes a variety of learning activity types and supports repurposing. In terms of inclusivity, it provides a set of controls that allow for content to be accessed via the keyboard (using tab, space, arrow, and enter keys) as well as via the mouse. A set of options on every screen enables users to change the color scheme, the screen size, and the fonts, and to switch to text-to-speech. These features allow users with auditory, visual, motor, and other difficulties to access the content and complete the online activities. While these features are designed with disabled users in mind, the Xerte development team work on "universal design" principles, arguing that "good accessible design is good design—for everyone" (University of Nottingham, n.d.). Indeed, along with Barajas and Higbee (2003) we believe that universal design can create an "expanded vision of inclusion" (p. 286) that places the education of all individuals at the heart of what we do in HE. However, while the use of Xerte met our philosophical beliefs and design requirements, some of the standard Xerte tools were limited in terms of our pedagogical principles. For example, we particularly wanted to incorporate opportunities for reflection, collaboration, and dialogue through some form of online forum and/or individual reflective journal. At the time of writing, neither of these features had been developed by the Xerte team, so our own project e-developer created a Web-based forum and embedded it into the overall module. Although this adaptation does not strictly adhere to the same accessibility standards as the standard Xerte toolkit, we hope that the toolkit's future development addresses this limitation.

One of the other key features of Xerte is its facility for embedding video within the content. This was one of our key requirements since we wanted to use video clips of authentic classroom sessions, not only to illustrate inclusive principles in practice, but also to use them in combination with learning activities to enhance understanding of, reflection on, and discussion of the complexities, challenges, and benefits of inclusive learning and teaching. Figures 1 and 2 are examples of how we achieved this. On the first screen, checklists are used in combination with video to encourage critical observation of classroom practice. A think space and access to the online forum is provided to encourage reflection on students' own practice. The second video clip gives a powerful message to tutors from the students' perspective. On the second screen, drag-and-drop labels are used in combination with clips from
teacher interviews to develop and check understanding of this concept as it applies in practice. Users play the clips and match the labels to what they hear/see.

**Appropriate, accessible, and ethically sensitive video production**

All videos used in the module were produced in-house. Our task was to identify and video-record teaching sessions in which one or more of the principles of
inclusive practice would be demonstrated. We worked closely with university lecturers from different disciplines whose practice had been identified by staff and students as inclusive and engaging. During filming, the focus would change from students to teacher according to the activities but in all cases our intention was to capture incidents and interaction that demonstrated principles of inclusive practice. For example, in one session we wanted to film the interaction between students working on a small-group exercise. We placed a small remote microphone on the desk where they were working so that we could pick up their discussions. This group of four students is culturally and linguistically diverse: one is deaf and supported by a British Sign Language interpreter and a note-taker. This example is discussed within the LTI module (see Figure 3). The entire collection of clips from this and other sessions and interviews can be accessed from JorumOpen or via the LTI video collection (http://www2.wlv.ac.uk/celt/oer/deposit/Collection.html).

In another session, we needed two video technicians to record small-group and paired discussions while recording complex gymnastics movement. One of our areas of interest in this session was the integration of a physically disabled student in the mainstream activities. The processes of building relationships with participants, gaining their trust, developing ethical protocols for the capture and use of the video material, as well as working on pedagogical and logistical issues, were crucial to the outcome of the project. Following the recording of one of the sessions, the lecturer emailed to say:

I was quite surprised at how easily the students appeared to put out of their minds the fact that they were being filmed—they appeared to do their working in groups and presenting their solutions in exactly the same way as in other weeks ... I don’t think this had any negative effect on the learning experience, and feel that it was all a very worthwhile exercise both for me and for the students. I have shown the video to the students and they obviously enjoyed watching it!

![Figure 3. Unit 2: being reflexive, intuitive, and critical in action within diverse groups.](image-url)
Over the course of the project we video-recorded sessions in a range of subjects, including business, digital media, mathematics, pharmacy, sociology, social work, and sport. In addition, we recorded staff development sessions on deaf awareness and interviews with leading researchers in equality and diversity. Following many of the teaching sessions we also video-recorded interviews with the teachers and some of the students separately or in groups. In one case we video-recorded an interview with a group, comprising one of the teachers, two of her students, and two of the support workers, on their experiences of learning, teaching, and supporting students in diverse groups. Following this session, the teacher said:

I found it really useful to have the opportunity to speak frankly with some of my students and to learn directly from them which of the techniques I use they find the most useful. I enjoyed reflecting upon what I do and I like the fact that following reflection I am always finding ways to tweak and improve my practice and keep it fresh for student ... It was good to learn from the note taker and interpreter.

In all cases, DVD copies were made for those involved and in most cases the teachers invited us to discuss their sessions with them once they had viewed and reflected upon them. These opportunities proved to be rewarding and developmental for new and experienced teachers alike, for example:

I learned from watching the video of myself that I tend not to finish off all my sentences, as if I assume they know what I was going to say, so I move on to the next point. After nearly 30 years of teaching I never realized that I did this!

Due to the length of the teaching sessions (in many cases over 2 hours), a major task was the selection of appropriate and relevant video clips. Each clip was assigned a principle or set of meaningful tags for searching and later identification and then transcribed and subtitled. The final clips were then made available on Vimeo (http://vimeo.com/oer) for user review and feedback before they were deposited on the OER repository Jorum (http://resources.jorum.ac.uk). There are currently over 100 video clips available for preview, download, sharing, and embedding via Jorum, Vimeo, and the project Web site. The collection of clips grouped by subject area includes a full description of the classroom session, together with the issues and the principles of inclusive practice to consider when viewing the clips.

User review and evaluation of the video clips in the pre-release stage provided helpful feedback, particularly on their potential for staff development:

I heard [eminent professor of education and HE consultant] give the keynote speech at the Roehampton Learning and Teaching conference earlier this year ... At one stage he showed a [video clip from the LTI collection]. We found this particularly inspiring and would like to adapt the activity for our induction for new first [year students]. It’s of particular relevance in a Writing Journalism class. (Senior lecturer, Roehampton University)

Feedback received during the early stages suggests that the sound quality of some of the classroom clips was variable. Although we were able to address this technically to some extent, we took the view that any loss of sound quality would be more than compensated by the addition of subtitles, which also served to reinforce the inclusive principle of universal design; that is, subtitles help all users. It
must also be said that a very small number of clips do not illustrate best inclusive practice and in a minority of clips the teaching could have potentially excluded some students. However, we believe these clips are very valuable. They are not only authentic; they also trigger discussion. By scrutinizing others’ practice, within the messiness of the real-world classroom situation, warts and all, we can reflect on our own approaches and identify areas for improvement. This is true open practice. Indeed, having viewed the DVDs of their sessions, the teachers were often the first to identify where and how they could improve their practice. Until now, there has not been a body of authentic video resources such as these that are widely available for use as triggers for teachers in HE to do this. We believe that the teachers in this project will have made a huge contribution to the development of the field of inclusive practice, the development of other teachers, and ultimately, the development of students’ learning. Our challenge, having developed the package, was to encourage its use and reuse across the sector.

Exploring the ways in which OER could be reused for inclusive learning environments

Although we believe we have produced an OER package that is unique in its treatment of this area of academic development and rich in terms of its research underpinning, interactivity, and media content, our main aim was to advance the development of inclusive learning environments across the sector. Between August 2011 and March 2012 the module was accessed in 114 towns and cities in the UK and in 26 countries and that the video clips have been viewed on Jorum 1900 times. However, we do not know if the resources are being downloaded, reused, or repurposed and to what ends. In future we hope to use a resources tracker facility that may reveal more about this. In the meantime, we have some intelligence generated from dissemination events that suggests how some academic developers, educational consultants, and teachers intend to use the package. For example:

I’m going to add the link from our “inclusive teaching” VLE so that staff are made aware of this course and can access it if they wish. I am also thinking about using some of the clips to trigger discussion as part of the sessions I facilitate with GTAS and lecturing staff. I’ll suggest it as a development activity which participants can undertake as part of the AHEA pathway we run. I found the references very useful and will access some of these for my own development! (Teaching, Learning Development Unit, University of Sussex)

I’ve had a number of colleagues commenting on your contribution and clearly you’ve caused them to feel inspired with the approaches to inclusive teaching … I think you have chosen an angle on promoting inclusive teaching within the disciplines which is very attractive to us. There may be potential for using your resource in our probationary lecturers’ programme, if on closer evaluation this appears to be possible. It would certainly seem to offer an opportunity for developing teachers, to review the teaching of peers, at their own pace and at a time of their choosing. I am sure that will be most attractive. (Director of Learning and Teaching Enhancement, University of Bath)

My University is considering the organization of a large-scale professional development program for staff on effective learning and teaching for students from LSES [low socioeconomic status] backgrounds … I’ve had a look at the information on the OERs and work you’re doing … All looks fantastic and perfect for our needs. We would really benefit from your experience at CSU. (Director, Transitions, Charles Sturt University, Bathurst, New South Wales, Australia)
Have had a quick tour of your [Learning to Teach Inclusively module]—much food for thought ... as a sometimes lecturer I found your “invitations” challenging and thought-provoking in a positive reflective (non-confrontative way) ... brilliant! (Principal Policy Officer, Department of Further Education, Employment, Science and Technology, Adelaide, South Australia)

While this feedback suggests that the product was fit for purpose and repurpose, evidence suggests that OER in general are underused in the HE sector (Greenbo, Fisher, & Thille, 2011; Stacey, 2010). We felt we needed to do more to convert words into actions, and possible users into actual users if the package was to influence teaching practice and enhance the learning of all students.

At this point, much of the interest in our work had come about because of an already established reputation for research in pedagogies for widening participation and inclusive learning and teaching. This reputation and the research underpinning it gave the OER credibility among potential users and leverage in terms of reaching out to potential users. Our follow-up initiatives include working with colleagues to explore what infrastructure and interventions would be effective in embedding and extending OER for inclusive learning and teaching. We began this outreach, exploration, and embedding work within our own institution.

**Embedding and extending OER for inclusive practice in the University of Wolverhampton**

Our overall approach to extending and embedding inclusive practice is a collaborative one. We see our role as working with lecturers, subject specialists, learning and teaching champions, and senior managers to develop culturally relevant models of engagement that will be evaluated for their impact on pedagogical practice and on the development of inclusive learning environments. So far we have developed and begun to use three embedding models within our own institution.

**Model 1: developing professional values through the Postgraduate Certificate in Academic Practice**

Model 1 takes a blended learning approach, focusing on the development of professional values through the university’s Postgraduate Certificate in Academic Practice. This model addresses both an internal strategic priority for teaching staff within the university to gain a teaching qualification, and an external legislative requirement for all staff to consider their treatment of “protected characteristics” in HE (Equality Act, 2010). Teaching staff who do not have a teaching qualification are encouraged to undertake the Postgraduate Certificate, which was revised and revalidated to address the UKPSF professional values and to incorporate the issues of inclusive learning, teaching, and assessment (HEA, 2010). The OER LTI module and video resources are currently embedded within the virtual learning environment for this award and used in face-to-face sessions for discussion of practice, policy, and theory, and as self-study materials outside the block sessions. The new program started in September 2010 with some 28 new and experienced teaching staff from across the subject disciplines. As part of their assessment, participants are required to video-record their own teaching sessions and to select clips from them that illustrate aspects of inclusive practice. These clips plus additional evidence, evaluation, and reflection are then placed in and assessed through an e-portfolio. With the consent
of all parties, appropriate ethical approval and licensing, subtitling, and so on, a selection of these video clips are to be added to the LTI video clip collection to increase the relevance, subject reach, and scope of this OER resource for the wider HE community and reused within the schools for more subject-specific workshops and discussion (see model 2 below). Although it is impossible to establish a direct causal effect of the OER content, materials, and activities on the Postgraduate Certificate participants’ practice, their video clips and reflective accounts show evidence of both inclusive practice and a heightened awareness of the issues of inclusion and student diversity. The passage below comes from one Postgraduate Certificate participant’s reflective e-portfolio entry. She notes a change in her approach, marked by a new interest in her students and the application of the principles of inclusive and engaging teaching:

I had previously only had an approximate idea about the diversity of my student group as I had not really thought about it in a lot of depth. The process of documenting on the session plan aspects such as group size, age, ethnic groups etc. has made me think more about the student group that are attending my sessions. Furthermore, I previously saw my students as empty vessels that needed to be filled. I now realise that this is not the case and in doing so my style of lesson delivery has greatly changed. I now try to harness the knowledge that the students bring with them to class and attempt to build on this within the class to further their learning. I am now trying to use the sessions much more interactively and to have each teaching session provide the students with something unique that they could not get from simply reading around the subject … I now feel a connection with my students that I previously didn’t have, which has greatly increased my motivation to plan, deliver and facilitate the best learning session that I can for my students … The main message that came across from the student interviews was student engagement. This was also reinforced by the comment that one of the students made about how he had particularly enjoyed the session because he had learnt so much from the new ideas that were brought to his new group by the new people that he met.

Model 2: flexible resources customized to support local CPD activities and issues

Model 2 was developed with a school that had identified some specific pedagogical issues that had been raised by students through various channels (e.g., National Student Satisfaction Survey, School Quality and Enhancement Committee) and which the dean and her team of learning and teaching champions felt could be addressed through continuing professional development (CPD) using the OER LTI resources. Given that our approach to embedding was intended to be inclusive and collaborative (i.e., working with teachers in coming to an understanding of what it means to be an inclusive and engaging teacher in HE), our starting point for this model of embedding was the teachers’ classroom concerns (e.g., getting students to engage) rather than the students’ concerns (e.g., boring lectures) or indeed our own set of inclusive principles. However, in addressing their concerns and exploring alternative strategies, we anticipated that the students’ concerns would also be addressed. This teacher-led non-confrontational approach helped to relieve the tension, anxiety, and cynicism that some colleagues felt toward what was initially seen as a top-down directive to attend the workshops.

Prior to these workshops the three departments were asked to list and prioritize the issues that caused them greatest concern in the classroom. These included getting students to engage in class, getting students to prepare for class, increasing classroom attendance, dealing with disruptive behavior, and getting students to think
critically and analytically. While diversity and inclusivity were not raised as specific issues by colleagues, student engagement certainly was and “engaging all students” is central to our understanding of inclusive learning and teaching (see Hockings, 2010). Therefore, working from the list of staff-generated concerns, the project team then put together a series of tailored workshops facilitated by one of the project team. Our aims were to encourage colleagues to discuss their issues sensitively and openly, to explore the factors influencing student behaviors, and to collaboratively generate possible strategies and solutions to address them. Video clips were selected from the LTI collection and shown during the workshops where appropriate to demonstrate and trigger discussion about ways in which teachers had prevented or addressed similar issues. Since we had themed and tagged all video clips according to subject and issue, the process of searching for and selecting video clips to address the issues they raised was relatively quick and simple. With one or two exceptions, all participants made a commitment to try a different approach or technique for dealing with the issues on which they focused and a promise to report back on the outcome at a school-wide learning and teaching conference later in the year. In the meantime, the OER are available for colleagues to use as and when they need them. Support, planning, and resource implications of these proposed changes are being considered by senior managers as part of the university’s commitment to learning and teaching enhancement.

**Model 3: distance learning for (transnational) academic development**

Model 3 uses the OER LTI module as a full distance learning package. This is particularly appropriate for one of the schools within the university whose large transnational and franchised portfolio requires the host institution delivery teams to become fully au fait with the university’s inclusive ethos and approaches to learning and teaching. In this model, the project team is working with the International Office and the university’s partner institutions to reuse and repurpose the LTI package as a distance program of academic development. A small number of teachers and those responsible for CPD in their institutions will attend an intensive course on the approaches to learning and teaching used in UK universities. This initial course will take place in the UK using the repurposed OER materials. Thereafter these colleagues will work through the repurposed LTI package at a distance in their own institutions either as a virtual cohort or individually with tutor support from the University of Wolverhampton. The initial group will subsequently cascade their training and provide support for teaching staff who are teaching the university’s courses overseas. Although aimed at transnational partners, this distance learning model could be used within home institutions for colleagues who cannot attend face-to-face development opportunities such as models 1 and 2, or who want to gather evidence for an application for membership of the HEA by the individual route. Implementation of this transnational model started in January 2012. Minor adaptations to the LTI OER module have been made to suit overseas delivery. A review of its use as a CPD resource in one of the partner institutions will follow later in 2012.

**Effectiveness of interventions**

Having outlined these three embedding models, the question remains as to how effective they are in developing, embedding, and extending inclusive learning and
teaching in practice. It is early in our evaluation and one model is yet to be fully implemented. So far, however, these three interventions have raised a number of technical, logistical, political, and cultural issues requiring negotiation and senior management intervention. For example, model 1 would not have been implemented without a revalidation of the existing Postgraduate Certificate program. The fact that our proposed changes coincided with a planned revalidation cycle and that two of the project team were involved in the planning and teaching of the new program was key to the timely and full integration of the OER LTI module within the Postgraduate Certificate.

Model 2 also required strong academic leadership to stimulate interest in and take-up of the opportunities for CPD associated with enhancing classroom practice. While the requirement on staff to attend workshops was met with some resistance and criticisms of top-down neoliberalism, most agreed that the sessions were useful and even inspiring. Yet it is unlikely that many would have attended the workshops due to other demands without this senior management directive. Indeed there is now strong evidence that embedding and mainstreaming inclusive practice across the institution can be effective only when there is genuine commitment and support from senior managers and executive “to create the impetus for change and drive its implementation” (Bridger & Shaw, 2011, p. 3) (see also May & Bridger, 2010). Furthermore, there is also evidence that senior management commitment and policy directives play an important role in the wider use and reuse of OER across institutions. Good early engagement with key institutional stakeholders is essential for “getting institutional buy-in to OER release, particularly where it can be shown to support other, existing, priorities and strategies, such as sustainability, lowering environmental impact, or marketing” (McGill, n.d.).

Another key factor in all three models is the influence of the project team. In all three models, one of us has taken a leading or consultative role in taking the principles and the product forward in some way. For example, as developers and researchers we are able to select appropriate video clips from the large repository, not just by using the search facilities, but also by drawing on our deep knowledge of the clips acquired through months of working with the data. Similarly, our knowledge of the field of inclusive learning and teaching in HE informs the way we reuse and repurpose the LTI module to suit the particular requirements of the client group. We are unsure at this stage as to the extent to which these embedding models are dependent on there being a so-called expert in these areas. However, this is something we intend to explore in order to sustain the wider use of the OER LTI package beyond our own institution.

Toward a tentative model of embedding for sector-wide inclusive practice through OER

So far we have focused on the embedding and extending the principles of inclusive learning and teaching in HE through the use and repurposing of the OER LTI package within the University of Wolverhampton. The three models for embedding are still under evaluation, but already there are promising signs of enhanced inclusive learning and teaching particularly among participants in model 1.

We will continue to develop these models working with colleagues to embed the OER and principles of inclusive practice in-house. However, the main aim of our future work is to extend and embed the use and reuse of the OER package.
beyond our own institution in a sustainable way. Our vision is to work with the HEA and colleagues in HE institutions in the UK (teachers, academic developers, equality and diversity staff, and, where possible, students) to develop a consortium of training, development, and research centers, specializing in inclusive learning and teaching in HE. These centers would reuse and repurpose the OER LTI package for their particular contexts and explore alternative models for embedding the principles of inclusive practice through OER in their own institution. As they roll out their programs of development, a second aim would be to co-construct a framework to evaluate the effectiveness of these programs on the academic engagement of learners within participating HEIs. Once established, the consortium of inclusive practice centers would offer seminars, training and development, and consultancy to the wider sector. We see this knowledge exchange and capacity-building stage as key to the development and sustainability of our work.

In the long term, we believe that use of OEP and OER will enable learners to have “greater access to higher education material than ever before, at their pace and time and from anywhere in the world” (Scott & Tomadaki, 2007). The OER LTI used across the HE sector will contribute toward social inclusion by cultivating an awareness of the complexity of student diversity among university teachers whose traditional forms of pedagogy often fail to maximize intercultural learning, address inequalities, handle tension, and deal with sensitive issues. By developing the craft of inclusive pedagogy, by building and sharing understanding and knowledge about “complex and often deeply embedded differences in practices, ethnicity, and belief alongside class, locality and gender,” we believe the OER LTI can help the HE sector “stimulate new forms of representation and participation and enhance our practice of democracy?” (Economic and Social Research Council, 2009, p. 20).

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Notes
1. To access to the Learning to Teach Inclusively module via Labspace go to http://labspace.open.ac.uk/course/view.php?id=6224. Alternatively the module and whole video collection can be accessed via the University of Wolverhampton Web site at http://www.wlv.ac.uk/LTImodule
2. To access and download video clips in original quality go to Jorum (http://resources.jorum.ac.uk), then “Browse by Author” and “University of Wolverhampton.” Alternatively go to the project Web site at http://www.wlv.ac.uk/LTImodule and select LTI Video Collection. Search by subject or issue.

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References


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