



'Shock and Awe' or 'Reflection and Change': stakeholder perceptions of transformative learning in higher education

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ABSTRACT

This paper explores theories of transformative learning in the context of research-informed practice in the domains of education for sustainable development (ESD), internationalisation and citizenship. The research process draws on structured discussions from a national conference, organised by the authors, as an evidence-base. The conference comprised 80 multi-disciplinary experts from research, teaching and practice in education, transformative learning, ESD, internationalisation and citizenship within the higher education sector. The paper shares the action research process and aspires to extend critical reflection on transformative learning from the trigger (conference) event in a way that could be used in staff development and personal practice.

This research explored reflections among the conference participants on how transformative learning is defined, how it might be researched, and the implications for research-informed teaching and learning in higher education. Particular attention is given to the role of students, staff and different contexts to learning. Recurrent themes from the participant discussions were the contested nature of transformative learning and issues like: how transformative learning can be facilitated at institutional level; whether assessment was antithetic to the nature of transformative learning; and how ESD, internationalisation and citizenship might provide positive test beds for research-informed teaching around transformative learning.

Background

Conceptual frameworks around transformative learning have generated significant research¹ and debate since the early pioneering work of Mezirow (1978, 1991; see also Taylor, 2007; Scott, 1997;

Cranton, 1994; Boyd, 1991; Boyd & Myers, 1988; *Journal of Transformative Education*). Indeed, the term 'transformational' or 'transformative' learning in education has been used in varied ways and with multifarious meanings (see Table 1; Taylor, 1998). Transformative learning offers a theory of learning that is: 'uniquely adult, abstract, idealized, and grounded in the nature of human communication' (Taylor, 2002, p.5 on Mezirow, 1996). The concept represents a major theme of research and theory construction in adult education.

Table 1: Definitions of transformative learning

Theme	Definition	Source
Critical self awareness	Transformative Learning Theory describes a learning process of 'becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation'.	Mezirow, (2000, p.4)
Perspective transformation	The learner undergoes 'a conscious recognition of the difference between [the learner's] old viewpoint and the new one and makes a decision to appropriate the newer perspective as being of more value.' 'Transformative learning occurs as we struggle to solve a problem where our usual ways of doing or seeing do not work, and we are called to question the validity of what we think we know or critically examine the very premises of our perception of the problem.'	Mezirow (1978, p.105) Eyler & Giles (1999, p.133)
Expansion of conscientiousness	'Transformative learning is the expansion of consciousness through the transformation of basic worldview and specific capacities of the self.'	Elias (1997, p.3)
Concept of individuation	'Individuation involves differentiating and becoming aware of the presence of the different selves operating within the psyche. This requires an imaginative engagement with the unconscious, a working dialogue between ego consciousness and the powerful contents of the unconscious. According to Boyd ⁴ , a transformative education fosters the natural processes of individuation through imaginative engagement with these different dimensions of one's unconscious life. This engagement reflects an ongoing dialogue between ego consciousness and one's unconscious.'	Dirkx (2000)

There are contrasting views about whether all learning should aspire to be transformative in some way, or whether transformative learning is distinct and different. Eyler & Giles (1999), for example, take the view that:

Not all learning is transformative. Learning can simply involve acquiring new information or elaborating on information that we already have.... Transformational learning occurs as we struggle to solve a problem where our usual ways of doing or seeing do not

work, and we are called to question the validity of what we think we know or critically examine the very premises of our perception of the problem.

(Eyler & Giles, 1999, p.133)

More recently, discussions about education for sustainable development (ESD) and local and global citizenship have posed questions as to whether these learning contexts *need* to have a strong transformative element (e.g. Sterling, 2001). In parallel, the potential for transformative learning has been explored alongside the new paradigms of life-long and life-wide learning.

Aims

While there is a significant body of research on transformative learning, this paper specifically examines the potential links and synergies between this work and research-informed teaching and pedagogic practice (RiT) in higher education, as promoted in the UK by government (Jenkins *et al.*, 2007; HEFCE, 2005). The paper aims:

- To explore theories of transformative learning in the context of practice in the domains of ESD, internationalisation and citizenship.
- To share an action research process so that it can be used by other higher education institutions that are reflecting on what transformative learning might mean for their research-informed teaching practice.
- To extend critical reflection on transformative learning from a trigger event (here a conference) that could be used in staff development and personal practice.

Defining transformative learning

'Transformative learning' is a term that originates from Transformational Learning Theory, which was first developed by adult educationalist Jack Mezirow in 1978, with a subsequent series of publications (in 1990, 1991, 1995, 1997, 2000, and Mezirow *et al.*, 2009). Transformational Learning Theory describes a learning process of 'becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation' (Mezirow, 2000, p.4; see Taylor, 2007) in order to 'guide future action' (Mezirow, 1996, p.115; see Taylor, 2007).

Transformative learning is the expansion of consciousness through the transformation of basic worldview and specific capacities of the self; transformative learning is facilitated through consciously directed processes such as appreciatively accessing and receiving the symbolic contents of the unconscious and critically analyzing underlying premises.
(Elias, 1997, p.3)

At the core of transformative learning theory is the process of 'perspective transformation'. Clark (1991) identifies this process to have three dimensions: psychological (changes in understanding of the self); convictional (revision of belief systems); and behavioural (changes in lifestyle). At its simplest, transformative learning is learning that takes learners' knowledge and skills into a new domain, with a change or 'step jump' in cognitive and affective processes. It recognises that learning is not necessarily gradual, progressive and linear but may have significant thresholds for change in understanding and emotional intelligence.

Transformative learning is 'unsettling' in that it leads to the questioning of accepted assumptions and views, and to new ways of knowing and understanding. A key question is:

when transformative learning is the goal of adult education ... how can it best be fostered given the variables of learning contexts, learners, and teachers?
(Imel, 1998)

Other conceptual frameworks have been applied to understanding transformative learning. For example, research has debated the relative importance of the rational and affective skill domains in transformative learning (e.g. in the area of emotional learning/intelligence; Goleman, 1995). A major debate is between the utilitarian approach to transformative learning which views it as providing transferable skills and attributes (as argued by Bowers, 2005) versus the Freirian approach which views transformative learning as a liberating conscientization of the learner (Freire, 1970). The two approaches are not, however, mutually exclusive.

Others have used systems thinking as a tool in understanding transformative learning. This includes exploring notions of transitions and thresholds or step-changes in learning and intellectual development (Cousin, 2006), whether these are transient or intransient. This threshold concept argues that learning is not continuous, with similar on-going processes (Meyer & Land, 2003). For example, thresholds for learning and 'troublesome concepts'

as gateways to learning have been applied to understandings of advanced science (e.g. learning about climate change) and complexity and uncertainty (see *Planet* 2006; Hall, 2006). This poses questions around the conditions or pre-requisites for transformative learning for different learners in a range of settings, such as disciplines.

Transformative learning in practice

Although the theory is much discussed, the practice of transformative learning has been less researched, and is inadequately defined and poorly understood by practitioners (Taylor, 1998). Despite this, transformative learning is now being used as a theme for higher education conferences in the context of changing external environments to learning in higher education, taking learning *beyond* the university (e.g. into engaged work with communities). Mezirow *et al.* (2009) explore 'transformative learning in practice' with insights from higher education, workplace education and in community and social change (see Rose, this volume). The language and the challenge of accessing sophisticated concepts can, however, erect barriers to how theory and ideas in transformative learning are translated into practice within higher education, and in engaging in discussions with other stakeholders like employers or community organisations. A key question for practitioners is how to assimilate the theory and apply it to their practice. This involves exploring how research can inform the design of learning environments that increase the likelihood of transformative learning occurring. Taylor (1998) states:

What are the essential conditions and techniques for fostering transformative learning and roles and responsibilities of educators-as-facilitators and of learners in creating the environment supporting critical reflection and exploration of alternative perspectives? Most critical is establishing the roles of the teacher, the learner and the role of the rational and the affective in the transformative learning process.
(Taylor, 1998, p.viix)

Even before this, educators need to be able to engage with the evidence from research and practice and position themselves as learners.

Methodology

The research reported here explores stakeholder discussions around

the themes of a conference², focused explicitly on researching transformative learning through the three themes of ESD, internationalisation and citizenship, key areas of national policy development in UK higher education (e.g. HEFCE, 2008). The event was organised by the authors at the University of Gloucestershire (June 2009). The focus was on how transformative learning is defined and experienced, how and where it might be researched, and how this can be interpreted and applied in developing research-informed teaching and learning in higher education. The conference structure and focus is detailed in the editorial foreword to this volume.

This conference brought together 80 conference participants drawn from across the UK higher education sector, including expert researchers and practitioners who teach in higher education who had varying degrees of formal engagement with research into transformative learning. Their areas of expertise included education, transformative learning, research-informed teaching, sustainability, internationalisation and in citizenship education, from different discipline perspectives. Students also participated in discussions. Participants provided a sample from the world of higher education and practice, both selected and self-selected, with a wide range of research knowledge and experience of transformative learning. All had a common interest in the field of education.

The conference research process was carefully designed and structured to promote discussion and foster critical stakeholder/practitioner reflection as an evidence-base, in effect treating it like a large-scale focus group. At the same time, the conference was designed to lead participants through a progressive learning experience which they might find transformative in terms of their understandings in this field of education. It is recognised that there are creative tensions between the two activities of promoting developmental discussion and dialogue, and capturing the content of these discussions for the purposes of the research process. Participatory workshops and group activities involving communities of practice (teaching, researching and practitioners in ESD) provided a means of engaging staff in personal and shared explorations of the key research topics, and fresh opportunities for critical reflection and co-learning. This compares with the approach used by Peterson *et al.* (2009) in attempting to explore a research community's construction and definition of key constructs in the theory of style definitions in cognition and learning, using an e-survey (Rayner, *pers. comm.*).

The conference adopted a World Learning Café approach (theworldcafe.com, undated), with expert table hosts to engage the participants in dialogue around key questions.

- What is transformative learning? How can we recognise it and what makes it different?
- What does the academic and applied research to date tell us about the nature of transformative learning? Where are the knowledge gaps?
- How might we go about researching transformative learning? How does the nature of transformative learning influence the selection of research design and methods?
- What are the current dominant research agendas in transformative learning? How might these be progressed?
- How might this research inform our approaches to pedagogy and practice in higher education?

Questions were explored both generically and in contexts of ESD, internationalisation and citizenship. The objective of the conference programme was to promote cross-fertilisation of ideas between different disciplines and practice, integrate broad insights on the questions, and build interdisciplinary and inter-professional networks and research capacity. The analysis includes an investigation of research needs from practitioner/teacher perspectives.

During the conference, perceptions were captured from participants in various ways, and later transcribed and analysed. Participants were asked to identify six words which for them encapsulated transformative learning. These are captured in a Wordle diagram (Figure 1). The World Café discussions were expanded during the workshop sessions, with the addition of new strands and the cross-fertilisation of themes. Data were collected through creative, participatory processes capturing ideas through participants writing down or drawing their ideas, thoughts and observations on tablecloths and on 'paper stickers' posted on boards. 'Expert' table hosts were asked to add a layer to the synthesis by writing a brief narrative of their impressions of the key issues discussed immediately after the event. After the conference, all participants completed evaluation questionnaires that explored how their learning at the conference would impact on their research and practice. These responses were collated and analysed thematically. This textual material was analysed for dominant themes and selected quotes from the data are used to illustrate the arguments in the analysis below.

This links to the body of research on threshold concepts in learning (cf. Cousin, 2006; Meyer & Land, 2003). There were also synergies with the discussions around different learning types (deep, surface cf. Entwistle, 1981), cultural connotations (transformative learning as culturally defined), the permanency or transience of transformative learning, and how transformative learning is perceived and valued (see Box 1). Dominant themes were the 'unexpected' nature and challenge to assumptions of transformative learning, cultural contexts to the definitions (c.f. Bowers, 2005), and the importance of critical reflection in the transformative learning process (see Figure 1).

Box 1: Reflecting on definitions and values of transformative learning (drawn from tablecloths and table hosts)

- *There may be confusion between what might be termed 'TL lite' which involves some questioning and re-ordering of assumptions, and deep TL which involves a more profound shift of perception.*
- *Eastern philosophic traditions would not find it as unusual a topic, or experience, as we seem to.*
- *Is it always a good thing? For example, it could lead to fundamentalism.*
- *The durability of transformative learning is not guaranteed.*
- *Can involve learning from mistakes.*
- *Transformative learning makes people vulnerable in early stage.*

In exploring the language in discourses around transformative learning, participants referred to the:

quasi-religious nature of the language and terminology in the discourse reflecting spirituality, emotionality and a holistic basis for much of the discourse about transformative learning.
(Table host)

In reflecting on the nature of transformative learning, conference participants described it as '*an elusive slippery construct*', and that precise definitions were not desirable. However, there was a strand of argument that given '*a need for emotionality and affect*' in transformative learning, this is inevitable in learning that '*converts self-reference and personal identity*' (table host). This is an important issue that links to related themes of power, control, and of measurement and assessment discussed below. Engaging with the elusive nature of transformative learning can be perceived as a risk by educators, which can be exacerbated by the need to relinquish a degree of control and empower the students.

How might we go about researching transformative learning as researchers/ practitioners?

Discussions around how to research transformative learning emphasised the importance of researching and evaluating the process of transformative learning alongside the outcomes. Participants argued that the nature of the learning (complexity of ideas and the change in perspective that comes about as a result of transformation) required a rethink in research design to embrace:

mixed methodologies as well as qualitative methodologies in developing an understanding [of and] new accounts of transformative learning.

(Table host)

Innovative approaches can be used to capture experiences (e.g. digital stories and reflective diaries). There was a view that '*perhaps 'participatory research' was a requisite for appropriate research design in work with transformative learning*' (table host), and that research approaches should aspire to be longitudinal. These reflections concur with Taylor's (2007) critical review of research into transformative learning.

What are the current dominant research agendas in transformative learning?

Participant discussions focused on transformative learning at different levels in the higher education institution, from the classroom/ studio/lecture theatre through the learning design at course level to organisational change. Here the dominant research themes are explored further. It was recognised that literature around the practice of transformative learning in higher education focuses explicitly on teaching and learning. There is a research lacuna in how to facilitate institutional learning for transformation³. For example, some participants identified:

possibilities around organizational learning, institutional change and transformation. [There is a] need for research and more work with the ideas of transformative learning and learning communities within the institution?

(Table host)

This could build on the concept of the 'learning organisation' as developed by the work of Peter Senge (1990, 2000) through his 'Fifth Discipline' series of books.

How can transformative learning be promoted at institutional level?

An exciting dimension of the conference discussions was the convergence of the ESD and transformative learning agendas at an institutional level (see Sterling, this volume). Universities have the potential to engage in their varied internal and external communities in and for transformative learning to ensure: *'Transformative learning for institutions/communities as well as individuals'* (tablecloth). This divergence is reflected in the history of the development of ideas around transformation. Mezirow focused largely on individual transformation, while Freire's work, which is linked to ideas of transformative learning, saw that transformation as including a social and political process.

How should transformative learning be assessed?

At the other scale of focus from 'the institutional', the intangible nature of transformative learning and the tangible explicit and formal nature of assessment generated several questions which are not answered by existing research. Assessment tends to be framed for the cohort rather than for the individual. These concerns were focused around the difficulty of delivering judgements over a learning process that is not yet well understood, and may actually be adversely affected by the assessment. They are illustrated in extracts presented from the 'table host' notes (Box 2). Other concerns focused on the idea that transformative learning may be extremely challenging if not antithetical to the notion of assessment of learning, and to quality assurance.

Box 2: Issues in assessing transformative learning (drawn from tablecloths and table hosts)

- *Difficulties in defining, measuring and assessing transformative learning (and therefore establishing standards of quality or competence and related to this, educational interventions producing intended outcomes or impact). Can we measure it? Should we?*
- *How do we assess transformative learning without driving out the very aspects that make it innovative? How do you mark emotion? Would transformation not be constructed specially for an assessment?*
- *Should we have no assessments? Does transformative learning happen in the process of preparing for the assessment?*
- *What kinds of assessment promote transformative learning? Outcomes are unpredictable.*

- *Modern higher education is antithetical to positive transformative learning because of regulation, assessment and instrumentalism!*

What are the different disciplinary understandings of transformation?

Participants mused on the question of how to 'break down disciplinary barriers' (tablecloth) to reflect on what is common and distinctive about transformative learning. This discussion was not very productive, but may be an important area for future research. Some disciplines like adult education and psychology have a strong engagement with transformative learning (Mezirow, 1996; Taylor, 1998), but transformative learning opportunities are not so obvious in other disciplines. Related concepts are, however, being identified (e.g. discussion on threshold concepts in climate change science).

How might this research inform our approaches to pedagogy and practice in higher education?

A key question in the research literature (Taylor, 1998) and in the discussions at the conference was around the role of the students and staff in transformative learning. This raises issues of power (linked to the issue of assessment), settings for learning, and triggers for transformative learning. This is illustrated below:

Is student empowerment a necessary pre-condition for teaching transformative learning? Case examples [were] given [by participants] of intended transformative learning in a curriculum for media studies ... were contributed (several related to trips, re-location, removal from established comfort zones); ditto with an early years education comparative research project (UK-Sweden).
(Table host)

Module tutors – are they free? Educators need to be daring and take risks ... demonstrate willingness to be sincere with students, to take risks and be honest that as a tutor one is not always fully in control. It is a journey together; vulnerability [of both student and staff] has to be key.
(Table host)

Some participants suggested that reading texts '*could be a spur or a trigger to transformative learning*' (table host), while others believed that the learning context/environment was the most important trigger, particularly the need to be '*outside the classroom*' (tablecloth). This is interesting because although Mezirow and other researchers have focused on significant impacts on learners' lives, such as illness, adults

returning to education, service learning experience or international experience, Mezirow's original conceptualisation of the stages of transformative learning began with a disorienting dilemma (Mezirow, 1995).

This raises the issue of the uniqueness of the dilemma that may trigger transformative learning and the extent to which it is possible to design a learning context that encourages transformative learning to take place for a whole cohort. This is complicated by the fact that students favour different learning styles (Kolb, 1984) and may respond differently and over different timescales to their learning experiences. For some, personal awareness of transformation may come at a later stage as part of a complex and individual response to their learning experience.

To facilitate transformative learning assumes trust or faith in human nature that 'the good' will come through – rather the opposite to a deficit view of education and learning. It necessarily involves an emotional and whole-person response.

(Table host)

Settings for transformative learning

There were debates around whether or not transformative learning could be achieved in the conventional classroom. Some participants discussed their experiences of taking learners to remote locations as part of a field course. Major emphasis was given to field-based experiential opportunities for learning, particularly taking students dramatically out of their zones of prior experience and cultural norms, thereby challenging their attitudes and values. Examples given included field visits to parts of Africa where students are confronted with poverty and conditions which may be challenging to them. Staff and student participants reflected on the significance of 'uncomfortable learning' and the 'pain of displacement' (table host). However, others argued that other boundaries could be crossed locally, and pointed out that a significant proportion of students stay at home. It was suggested that the 'local' environment could make situations 'real', and that transformative learning did not always take place outside the academic setting.

The local environment can teach us a lot – we need to use it!
(Tablecloth)

Participants suggested that the boundaries could also be disciplinary, national, cultural or institutional (see Box 3).

Box 3: Settings for transformative learning (tablecloth)

- *Bringing different cultures together is transformative – but is it in both formal and informal settings?*
- *Cultural diversity – a ‘norm’ and untapped resource.*
- *To be transformative, should learning cross boundaries?*
- *Potential for positive and negative transformations.*

There were areas of commonality of view, independent of the learning setting. These included the need to present the learner with a trigger that may be unique to the student or group [or for the student to find a trigger] that encourages them to view their context or position from a different perspective. Some participants argued that critical self-reflection is an important aspect of encouraging learners to externalise their experiences, and to engage with or confront their personal responses to the learning triggers and to learn from them. This corresponds with much of the research on transformative learning. There were discussions around the conception of transformative learning as a journey and *‘whether it can be achieved in a three year undergraduate programme’* (tablecloth). This poses questions about the relationship between formal and informal or extra curricula learning, both during study in higher education and subsequently, and of traditional *‘higher education as an inhibitor of learning’* (tablecloth).

Transformative learning contexts in ESD, internationalisation and citizenship

Participants recognised that settings for transformative learning for individual students can be diverse, ranging from learning experiences during work placements to the subject of the actual learning domain (e.g. holocaust studies; sport and disability). ESD, internationalisation and citizenship are all *potential* settings for transformative learning.

ESD is transformative by definition – requires a change in world view.

(Tablecloth)

Is ESD a transformative experience? Participants queried what a ‘holistic education for a changed world view’ ... would look like?

(Tablecloth)

Work on bringing the global into the classroom. Make connections between university, student and others in developing countries.

(Tablecloth)

'Citizenship' was viewed as an implicit aspect to learning for transformation. It was also suggested that the tools teachers have available to them locally were not always considered and explored as much as they could be (e.g. in notions of 'community as classroom'). Education for citizenship was identified as a means of discussing morals, values, attitudes and roles. This was, however, qualified by the recognition that citizenship has local and global political contexts, and should it be 'democratic' citizenship that is promoted?

Citizenship in education could give students the ability to make informed choices, which could change their life experiences.
(Table host)

Areas of future research and development could focus on this issue of what are the pre-requisites for transformative learning, and whether it is something that can be 'institutionalised'.

Where now? Personal reflection and actions

An important element of the conference as methodology for this research process was the attempt to encourage participants to use personal reflection to develop an awareness of their experience, and encourage exploration of future areas of collaborative research that could be pursued. There were many responses to this in the evaluations, with indicative examples presented in Box 4. These comments demonstrated the range of links that participants have made between the agendas addressed in the discussions and their own situations in professional practice.

Box 4: Participants' reflections in evaluating their learning during the conference

- *It has helped me understand the complexities (emotive, personal, subjective nature) of transformative learning within our research. In practice, we have recently revalidated our degrees which includes much greater emphasis on challenging mindsets and understanding learning (all types).*
- *Re-evaluate, rethink the way which ESD and internationalization are integral to learning transformation.*
- *Linking raising awareness – attitudinal change and behavioural change.*
- *More motivated to design settings for transforming students through learning – although confident that I do this already.*
- *Linking raising awareness – attitudinal change and behavioural change.*

- *I would like to see the concept [of transformation] extended further – to whole curricula. This could be a valuable action research exercise.*

A reflective experimental cycle as proposed by the participants on a tablecloth (Figure 2) offers an approach for the practitioner researcher in exploring transformative learning.

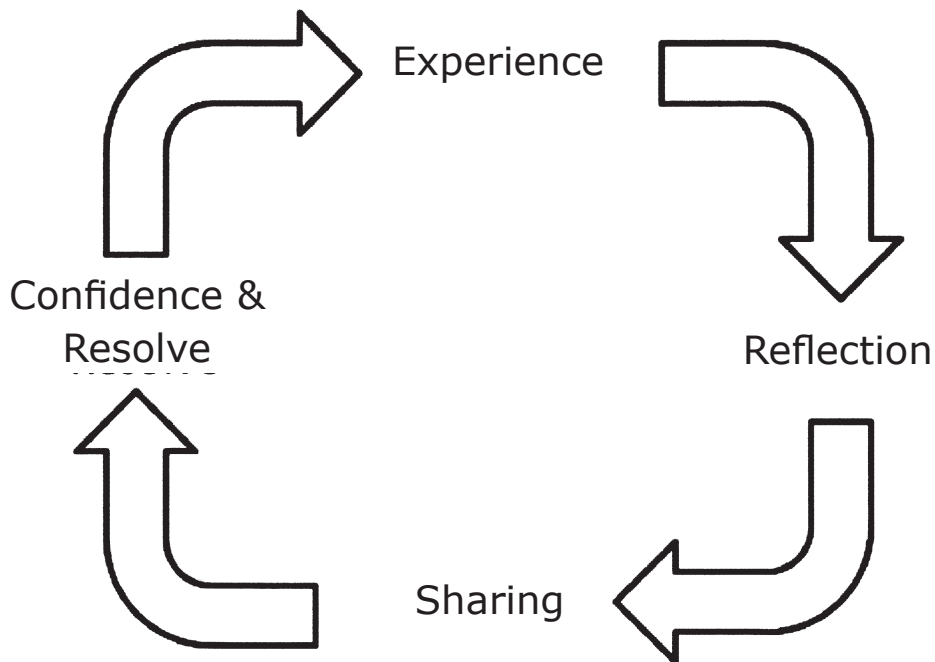


Figure 2: Workshop 'doodle': a reflective experimental cycle for transformative learning.

Conclusions

Research agendas for research-informed teaching

In identifying future research agendas, we return to the question posed at the outset about how transformative learning can best be fostered in practice given the 'variables of learners, teachers and learning contexts' (Imel, 1998).

Researching the role of the learner

From a learner perspective, one key area for exploration is what students as learners actually perceive as transformative learning.

This could include perceptions around their 'Aha' or 'Eureka' moments or their transformational journeys of travel. There are also important questions around the role of the learner in different learning settings and the relationship to the teacher, including whether or not student empowerment is a necessary precondition for transformative learning.

Researching the role of the teacher

Another area for research is focused around assessing transformative learning. Concerns were raised about whether conventional approaches to assessment had any relevance to transformative learning. This research needs to focus on identifying the learning outcomes for transformative learning, and how they might be articulated between student-staff and student-student, and in contrast to other learning outcomes.

Researching the role of the rational and the affective

Evaluative research linking the processes of transformative learning to outcomes is critical for educational development in higher education.

Researching the nature of specific learning contexts

This includes exploring what is different between these three inter-related areas – ESD, internationalisation and citizenship – in providing learning contexts which are transformative. What can be cascaded from this research to other learning settings? How can other settings for learning be integrated with the transformative learning potential of ESD, internationalisation and citizenship? A related area for further investigation is the potential for interdisciplinary learning across boundaries to be transformative.

Finally a key research area is how these three variables of learner, teacher/facilitator and context interact – a true challenge for systems research and thinking (cf. Meadows, 2009).

Critical reflections on our research

This paper initially set out to answer the question: how can research into transformative learning inform pedagogic practice in higher education? The lack of a precise definition of transformative learning did not prevent informative and progressive discussions among participants in the conference and it need not hamper researching the practice of transformative learning. Indeed, its breadth and openness encouraged discussion. Nor need it prevent research from informing practice, as the contested debates can be a progressive force in this

field of education. What is required and what does exist to some degree is an applied understanding of the concept that allows for the sharing of common meanings and investigative dialogue.

Important debates can be had about how transformative research is implemented at institutional level and whether transformative learning can or should be assessed. Alternatively, should the focus be on how the process and outcomes of transformative learning can be recognised as having occurred? This leads into issues around how transformative learning is experienced by individual learners, and how this learning is validated by teachers and students. These include issues of speed and depth of learning and the nature of the process, whether gradual transitions or step jumps or both. This has complex linkages with individuals' preferred learning styles, previous experience, personalities and world views.

The discussions around engaging with the research literature in transformative learning highlight the iterative synergetic relationship between research and practice and importance of research-informed teaching (Jenkins *et al.*, 2007). A significant learning point is the importance of continual feedback between the two activities, with a cycle of experience, research, reflect, change, experience.

This research focused on the nature of ESD, internationalisation and citizenship as learning contexts. Like transformative learning, ESD and global citizenship are contested areas. There is strong potential to cascade learning-informed research and research-informed teaching in transformative learning to diverse learning contexts. The fact that ESD is itself contested, interdisciplinary and inter-professional provides an ideal setting for this exploration and development. Most critically, research linked to practice for transformative learning needs to accommodate very different learning experiences, ranging from 'Shock and Awe' or 'Reflection and Change'.

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Notes

- 1 There are several useful accessible briefings on the history and theory of transformative learning (e.g. the ERIC digests; Imel, 1998; Dirkx, 2000).
- 2 Further information about the conference and conference resources can be found at: <www.glos.ac.uk/research/prsi/Pages/conference2009.aspx>.
- 3 See new Vice-Chancellor, Lincoln in THES 'Learning transformed me – I wanted to transform others' (3rd September 2009).
- 4 Boyd's (1989; 1991) additional perspective on transformation focused on the 'deeper emotional and spiritual dimensions of learning' (Dirkx, 2000) cf. conscious rational explanations of learning transformation.

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