

Haggis, T. (2004) Constructions of learning in higher education: metaphor, epistemology, and complexity in J. Satterthwaite & E. Atkinson (Eds) *The Disciplining of Education: New Languages of Power and Resistance*. Stoke on Trent, Trentham pp.181-197.

Constructions of learning in higher education: metaphor, epistemology, and complexity

Tamsin Haggis, University of Stirling

Despite the voluminous literature on teaching and learning across the different sectors and domains, there is a marked tendency to simplify learning rather than deal with its complexity. Richard Pring (2000) has commented on the tendency in educational research to ignore the complexity of learning. Future educational research, he asserts, must attend to what it *means* to learn and that requires a careful analysis of many different sorts of learning.

Cullen *et. al.* 2002:115 (Tavistock Report)

Although the complex nature of learning is discussed in some recent studies (see Savin-Baden, 2000; Light & Cox, 2001), the literatures of mainstream higher education pedagogical theory (eg. Prosser *et. al.*, 2003; Biggs, 1999), and related policy documents which make use of such theory (eg. HEFC, 1999; 2001) continue to work largely with the established model of learning associated with the idea of deep and surface approaches to a university learning task¹. This model has expanded over the years to include a wide variety of different research interpretations, and also, in some cases, an increasing variety of elements (eg. Entwistle, 2000). Despite this attempt to address the complexity of factors involved, however, the overall conceptual framework remains largely unchanged, arguably reflecting a fairly uni-dimensional, institutional perspective, which reflects institutional agendas (Haggis, 2003). As policy initiatives bring increasing numbers of non-traditional students into a changing higher education sector, the certainties underpinning this view of learning are being challenged, arguably suggesting the need to look again at what is understood by learning (and, indeed, non-learning) in this context.

This chapter sets out to explore the ways in which learning in Higher Education is discussed by a group of learners, as opposed to how it is discussed by theorists and policy makers². This will be done through examining metaphors in the talk of a group of mature students who are about to embark upon a university access course. Questions will then be raised about the type of analysis which underpins this discussion, and an alternative analysis will be explored which will attempt to look at description and metaphor from a

¹ For a good overview of the original research in this area see Marton & Saljo, 1984/997.

² The work of mainstream researchers in this area is also based on student perspectives, but these are largely elicited and theorised in relation to the specific conceptual framework described by the term 'phenomenography' (see Marton & Saljo, 1984/1997). The early work in this field did involve interviews, but student perspectives in many contemporary versions of this tradition are often elicited by means of questionnaires rather than by talking to students themselves.

different epistemological perspective, that of complexity and non-linear/dynamic systems theory (Cilliers, 1998; Bosma & Kunnen, 2001).

The analysis forms part of a longitudinal study which aims to explore individual narratives about learning in Higher Education, first on an Access³ course, and then at undergraduate level. Its focus, overall, is the processes involved in study (reading, writing essays etc.), analysed in conjunction with the participants' stories about school, family, employment and post-school learning history. Narratives about these processes are considered in the context of ideas expressed about learning, talk about the nature and purposes of higher education, and in the context of work and life beyond the university.

This chapter reports on one aspect of an analysis of the first round of interviews, which were conducted before the participants had begun their Access course. A new cohort of university Access students in Scotland were invited to take part in the research project by letter, which was sent out after they had been accepted onto the Access course, and before they had begun the first block. 12 participants (6 women and 6 men, aged from 26 to over 60) came for an initial group meeting to discuss the purpose, nature, and limits of the project. The participants were later interviewed individually. These interviews aimed to explore the various contexts surrounding the participants' decision to enter university, and focussed on questions around topics such as family background, educational experience, qualifications, employment history, and talk around concepts such as 'learning', 'student', 'teacher' and 'essay'. All the topic areas were covered in each interview, but the order and direction of the questions was determined by the responses of each individual (for further discussion of the methodology and analysis see Haggis, forthcoming)

Metaphors of learning: a standard data analysis

Research in the area of metaphor suggests that, far from being mere figures of speech, metaphors 'constitute an essential mechanism of the mind' (Martinez *et. al.*, 2001:965). The creation and use of metaphor, it is argued, helps people to 'see what is invisible, to describe what otherwise would be indescribable' (Thornbury, 1991:193). Furthermore, metaphors have power. As 'blueprints of thinking' (Martinez *et. al.*, 2001: 966) metaphors mark out not only the shape of our thoughts, but also the nature and scope of our action, in both creative and restrictive ways (ibid; Hudson, in Taylor, 1984). Analysis of the use of metaphor in talk about teaching and learning, from this perspective, seems to hold potential for understanding different articulations of the nature and meaning of learning in new ways.

In this analysis, participant talk was analysed in a general sense for occurrences of imagery and metaphor. In addition, the participants were asked directly, towards the end of the interview, if they could think of an image which summed up where they felt they were now in their lives. Both these images, and the use of metaphor overall, appeared to cluster into two main categories: expanding/enlarging, and tunnelling/climbing.

Expansion/enlarging

With the first group, metaphors of expansion, there were ideas of widening, broadening and moving outwards.

I'm really looking forward to *widening*, widening my outlook on life (Graham)

I think learning is *expansion* of the mind, to take in new things (Jack)

³ Access courses in Britain, run by both Further Education colleges, and by universities, provide a route into university for mature students who do not have standard entry qualifications.

Other people could always take things *further*... really *map things out*. Education to me means that you learn on a *broad*, a *wider* aspect. ... I think it enables you to think *laterally* (Sheila)

I'm going to be wanting to know *the bigger picture* (Sandra)

There were also metaphors of roundness, completeness, and wholeness, as well as ideas of depth, clarification, opening and sharing.

University is being taught at a different *level*. It's more *complete* – they've spent years doing it, they want to do it...it'll be a lot more enjoyable, because the *further down* you go, the more enjoyable it gets. Before you were taught at a *surface* level, just for an exam.... It gives you the grounding to learn the subject from *all directions*, to know the *round* picture, not just the *surface* (Sandra)

I think (learning) makes you a much more *rounded* person...I would hope that learning takes away prejudices (Sheila)

You know, when you wake up in the morning and you see daisies, they're really, really quite *clamped up*, and you're just waiting on that sunny day to come along and *open up*, because that's what I need to do... very much so, I do feel I need to *open up*...(Patricia)

One person in this group talked about making a new building from the rubble of a breakdown; another of feeling like a racing pigeon about to be let out; and a third of being like a dormant volcano about to erupt.

Tunnelling and climbing

Tunnelling and climbing represent a rather different orientation to starting university. For Will, who has been a security guard for the last 20 years, it is his life so far which is the tunnel:

I could have done better at school...now I want to prove myself...get to a kind of *light* at the end of *the tunnel*. Now I'm in my 40s feel I like I want to do something, catch up for previous years

For Jane, on the other hand, a 26 year old mother of four, university study itself is the tunnel:

University is like a *mission*, you come out the end of the *tunnel* with your degree. It's a *test* to all of your senses...your social instincts... organising yourself

However, she also talks about 'loving' learning, which she describes as 'like a ladder, you go up every time you learn something'; the ladder will take her to where she wants to go in life. Sandra, a well-qualified nurse, uses metaphors of both expansion and climbing:

I've *crossed the fence*. I was always on the other side of the fence looking over. Like you're an outsider....and now I've crossed that fence. I'm still at the bottom of the field, ...but, I'm over the fence.

Others use metaphors of height in the sense of 'rising above', or reaching up:

Learning is also about *rising above* the knocks in life.... not letting it *drag you down*. Learning at university is like, a *higher sphere*... there are brilliant minds at university (Jack)

When the participants' metaphors of learning are compared to those of the official discourse (Lillis, 2001) of higher education learning theory (Prosser & Trigwell, 1999; Biggs, 1999; Entwistle, 2000; Prosser *et al.*, 2003) a number of differences emerge (see table). The first is the difference between *deep* in the official discourse as individual, specialist knowledge, whilst in the participant discourses deep is related to ideas of expansion and growth in a multi-directional sense, connected to ideas of breadth and widening, as well as sharing and relationship with others. The second area of difference is in the idea of *progression upwards*, or *height*. In the mainstream discourse, the student is directed in an apparently straightforward, linear way, towards a clearly defined cognitive goal (students who do not do this exhibit 'pathologies' or 'dissonance', leading to 'shallow' outcomes). In the participant discourse, movement is over, upwards and through, in the sense of battling against obstructions (social, relational, personal), and is directed towards brightness, light, new atmospheres, and new spaces for the imagination. The third contrast is the difference between learning as something of the *mind*, in the first case, compared to learning as something involving a totality of *mind, body and being*, in a philosophical and ontological sense, for the participants. Finally, there is the contrast between the overall metaphors of *moulding and producing*, in relation to institutional agendas, compared to ideas of *expanding, clarifying, mapping, tunnelling and climbing* in relation to personal agendas. Learning in the first sense is constructed as a means for achieving institutional outcomes, whilst in the second, it appears to be seen as a tool for the creation of new identities and selves.

Responding to the standard analysis

The comparison of metaphor types in these different discourses arguably begins to surface aspects of these different conceptualisations of learning that might not be easy to see using other forms of analysis. Comparison in relation to types, or categories, creates space for new types of questions to be raised; in this case, for example, about the ways in which the institutional orientation towards learning, and the values associated with such learning, might differ significantly from the orientations and values of some mature learners. This makes possible further questions, perhaps in relation to the idea of fit between learners' orientations and those of the institution. Will those whose orientation is characterized by ideas of 'expansion', which appear to have some links to the top levels of the 'conceptions of learning' model in the official discourse⁴, be more successful than those who express ideas of tunnelling and struggle, which institutional models do not acknowledge? And will the subject specialisation of disciplinary learning provide the broadening and opening of personal horizons that is hoped for, or will the narrowness of such knowledge-based specialization lead perhaps to alienation, or disappointment?

Discussion of the implications of this analysis beyond these questions, however, is potentially problematic. It could be argued that learner discourses are bound to be different from theoretical discourses, because they have been generated in different ways, for different purposes. From this perspective, the 'official' picture of learning is a general abstraction, which should be used as a heuristic, rather than seen as a description of reality. The second picture, in this view, has been created from the accounts of a small group of individuals, and, as such, is problematic because it has limited applicability to other situations. What, those that argue in this way might ask, can the significance be of an analysis that relates to such a small sample of new learners in higher education?

This familiar question exhibits underpinning epistemological assumptions which reflect conceptions of scientific rigour, and habits of scientific analysis, which are so taken for granted that they are rarely commented upon. Cross-sectional analysis, resulting in the identification of categories (whether themes in qualitative data, or the results of factor analysis in more quantitative studies) is simply the way that this kind of data analysis is usually done. This approach takes for granted the fact that, in order to create a theme or category, a piece of the data has to be removed from the context in which it was originally

⁴ The top layers of the 'conceptions of learning' model include learning as 'the abstraction of meaning', 'an interpretive process aimed at understanding reality', and 'developing as a person' (Marton & Saljo, 1984/997)

expressed: to create a category such as ‘metaphors of enlargement and expansion’, for example, the metaphors have to be taken out of the narrative context within which they were originally located. This process of de-contextualisation, necessary in order to find themes in common across different accounts, however, is arguably not really consistent with contemporary awareness of the *context-specific* nature of phenomena, of the *locatedness* of things. In addition, theming and categorising are about creating patterns of *sameness*, which obscure and silence the ways in which things are *different*. Recent approaches to the study of learning, such as those based in theories such as social constructivism, situated learning, and some recent theoretical perspectives in adult education, further education and higher education, however, express a concern with difference (as opposed to commonality), specificity (as opposed to generalisability), and the effects of context (as opposed to abstraction). The epistemology which underpins much research into learning does not seem to be congruent with these concerns.

One reason for this appears to be the power of the discourse of ‘science’ which underpins abstracting, generalising approaches. It is difficult to find different epistemologies which are able to compete with the power of this discourse, with which it might be possible to begin to create different kinds of understandings about learning. The deterministic and probabilistic assumptions which underpin many current constructions of educational research, however, are based on only one conception of science. There are other equally scientific epistemologies, such as those that underpin relativity, quantum, chaos and complexity theory. These types of theorising, although all different, are often underpinned by *non-determinist* assumptions, which have resulted in a range of different descriptions of fundamentally non-linear processes and patterns in phenomena.

These epistemologies have potential implications which are only just beginning to be explored in educational research. Complexity theory (Cilliers, 1998; Byrne, 1998), for example, points to the importance of *local interactions*, and to the *interconnectedness* of different elements in a local situation. This could be seen as focusing attention on the existence of many elements within individual contexts of learning which processes of abstraction and generalisation are forced to modify, in order to fit them into a category, or indeed, if they won’t fit, to completely ignore. It also allows for recognition of a multiplicity of *connections* between elements, connections which have to be severed in theming and categorisation processes. From the perspective of theories of complexity and emergence, local elements constantly interact, and, through feedback, change and re-form each other in a continuing, non-linear, and unpredictable ways. This leads to the powerful and somewhat disturbing suggestion that meaningful order may be created by emergent processes which are fundamentally unpredictable, and/or untrackable.

The possible implications of some of these ideas in terms of data analysis is the focus of the research project from which this analysis is drawn. In terms of the data discussed above, it might be asked how the stories of the participants in this study would look if, instead of focussing upon creating themes out of groups of de-contextualised elements, different *local* elements of each story were looked at together, *without* necessarily any intention to try to articulate the precise nature of the relationships between these different elements?

Analysis in context: specificity, difference and the emergence of meaning

When the participants’ use of metaphor is examined in relation to the different elements of each individual’s story, there are two things which emerge in comparison to the analysis which underpins the first part of this chapter. The first is that the categories which can be created in a cross-sectional analysis (eg. metaphors of expansion or tunnelling) can no longer be sustained as discrete entities. In this second analysis, boundaries between categories refuse to be neatly drawn; categories mix and interweave, and constitute each other in ways that can only make sense in terms of the context within which the story is being told. Furthermore, the elements of the data which had been clustered together, suggesting the existence of a group of *like* phenomena (eg. ‘expansion’), uncouple themselves into kaleidoscopic pictures of *difference* at the level of individual, contextualised constructions of meaning. Freed from the

constraints of cross-sectional categorisation, however, patterns of meaning, so hard to sustain *across* different accounts, begin to emerge *within* accounts in quite clearly defined ways.

Jack

Jack (36) has mixed memories of school, which he left at 15, with no particular goal in mind. His father, a postman, died when he was 13. When he was about 17, his mother, who worked in a rubber works, fell ill, and from that time until the time of the interview he was her full-time carer. During this time he read a great deal. When his mother died, the year before the interview, Jack had a breakdown. Finding his way through this with the help of a counsellor, and influenced by his student nieces, Jack has emerged from this experience determined to become a historian. Considering that he has no school qualifications, and no post-school learning experience, he is extremely confident about this next step in his life

I feel I'm ready to take on the world, actually... The whole thing I actually lacked over the course of my life was self-confidence...But now, I think it's just with the experience of last year, when my mother died, you know,...em... I feel like, well, I've been able to take that on, overcome it, I feel I can take just about anything on.

So it's the experience of managing to live through that, and pick yourself up...

Exactly. The way I see it is like there's just a huge bomb that exploded, and there's just all the rubble that was left behind, you know,...and....then we cleared all the rubble away and just started building again, you know...starting anew and afresh... I'm renewed and reinvigorated.

For Jack, learning is 'expansion of the mind to take in new ideas', and 'building up knowledge throughout life', both of which can happen either 'in the classroom' or in 'life in general'. He does differentiate between the two: classroom knowledge 'can help you with career prospects', whilst the other kind of learning is about 'rising above the knocks in life', such as the murder of a close relative, and the death of his mother. However, these two different aspects to learning are not necessarily separate:

I suppose that's what I mean by academic learning, you're being taught by people, and you're sitting by people, who are being taught with you, who are trying to learn the positive things in life. They're trying to do maybe some good, in life...rather than experience the bad side...

Jack feels that there are 'people with brilliant minds' at university, and that being taught by them will make him 'even more intelligent':

...that's what I mean by expanded knowledge, your mind and that, opening up to new ideas, new situations, that kind of thing. I always feel it's good to broaden the mind, take on new ideas...

This sense of renewal and expansion, however, incorporates a very practical goal. He wants to:

...get something better for myself out of life, you know. Maybe possibly a good career as a historian. That would be an excellent achievement.

Jack's apparently 'instrumental' focus on university as the path to a worthwhile career is pragmatic, philosophical, and ontological, all at the same time. University seems to be the start of a new way of *being*, which he hopes will make his experience of his existence more positive.

Sandra

Sandra (30s), who has negative memories of school, expresses these as frustration that her mother made her help with her catering business every day, rather than encouraging her to do school work. She suspects that her mother was jealous of her opportunities, after getting pregnant with Sandra when she was 16. Since school, Sandra, as a nurse, has done a whole range of professional courses, and is thus successful in educational terms. But this is not how she talks her about her life. She is frustrated and desperate for change. Multiple things seem to have come together to make university seem important, and possible, now: a change of circumstances in returning from abroad to find unsatisfactory work, divorce, her child now at the age that it is possible to arrange childcare. In addition her sense of irritation with those she deems apathetic at work seems to have reached an intolerable level:

Five years ago I got a sense of learning being important, exciting. My husband loved his work, he used to get up at 4.00 am to study and enjoyed it. I've never felt that way. ...I want to know the big picture... people who are educated want to do their work, it comes across. I've seen that, in you, in other students, in my husband. Other people are just doing a job, complaining all the time...

Sandra talks about feeling up until now that she has never reached 'what she's supposed to be'. However, having got 'over the hurdle' of feeling 'small and insignificant' on her first day in the university (she nearly turned round and went home again), she now has clear, and strong, feelings about her current situation:

I can feel it, this is the right place for me to be. It's a new feeling, bigger than getting married.....

I've crossed the fence. I was always on the other side of the fence looking over. Like you're an outsider....and now I've crossed that fence. I'm still at the bottom of the field, ...but, I'm over the fence.

What was the fence?

Just barriers, a lot of barriers, that you just go up against all the time, just in life, everything. And you just knew that there's more, and you're able to do more...but you were always just held back. Whether its family, work, anything....

What do you see now that you're on the other side of the fence?

Eh... a lot of struggles, a lot of falling down.....Yeah, I'm not in that house yet, and I've got a long way to go to get there.

So there's a house.

At the top of the field there's a house.... And once I reach that house. ..I'll feel...complete.

Sandra uses images of 'completeness', as well as those of depth, height, hurdles and barriers. These different ideas are entwined together in complex ways. Apart from her own search for a kind of wholeness, for example, she talks about university learning as being both 'at a different level' and also 'more complete'. She talks of learning becoming more enjoyable 'the further *down* you go', and of her previous teachers teaching 'at a *surface* level', where no-one answered her questions. Despite her expressed lack of satisfaction with the formal learning she has done so far, her past engagement in professional courses nonetheless involved more than simply a desire for professional advancement. She

did extra courses because she wanted to know ‘the *round* picture...from all directions’ of her subject (she contrasts *round* with *surface*), so that she could ‘help people as best as possible’. Like Jack, Sandra’s view of learning at this stage is highly complex, involving existential, instrumental, intellectual and emotional desires which have coalesced at this point in her life into a sense of absolute clarity and determination. Her very personal, philosophical agenda, however (which seems to be characterised by wanting *more*, of just about everything), is not only about herself, but incorporates relational and social desires.

Graham

Graham (30s) tells a different kind of story about alienation from his family, and from school experience. He moves schools, his dyslexia is misdiagnosed, he has an alcoholic teacher, and a stepfather (also a teacher) who is always comparing him negatively to his brother. In his teens, Graham seems to assert himself by resisting any further education; he fights the YTS mandatory college attendance and gets a special dispensation not to attend any classes. He eventually develops a liver problem from drinking. Trying to keep him out of the pubs, his mother, who works in a shop, buys him a historical novel. This chance intervention seems to change everything. It sparks an interest in history that links back his grandfather, the one person he mentions being close to, who used to take him to Edinburgh castle. He begins to read more and more history, until his partner eventually persuades him, in his 30s, to do a university evening class. He finds the teacher inspiring, and begins to consider the possibility of studying history at university.

Currently working 12 hour shifts in a chicken farm, Graham is tired of not ‘getting on’ in life:

(I’m looking forward to) Just a total change, of lifestyle, I think ... I’m just looking forward to ...being like everyone else, you know, sort of.....coming in, doing my work, enjoying what I’m doing,and then em.....having a little bit more time off, ..having a sort of brighter future...

Though again this could be categorised as an ‘instrumental’ desire to simply get a better job, Graham also talks about *widening* his current outlook on life, which he sees as *narrow*. For Graham, learning is about ‘having knowledge that you wouldn’t have in everyday life’; finding out what philosophy is, for example, and understanding politics. It is also about sharing what you learn with other people – colleagues who ask about Mary Queen of Scots, and tourists who want to know about Scotland. His dream is to work with visitors to Scotland, and perhaps to become an author. He talks of ‘giving back’ what you learn to others, and also about learning being ‘nice and refreshing’, compared to working on the chicken farm. Though he is terrified of losing his pay packet once he becomes a student, he has a clear image of where his is in his life at this point

...racing pigeons, when they’re just getting let out... they can go anywhere, you know what I mean?

For Graham, learning at university appears to be the beginning of an attempt to reconstruct his place in the world; financially, socially, and existentially. Like both Jack and Sandra, learning incorporates simultaneously ideas of discovery, stimulation, and the possibility of a more satisfying work life. In contrast to many academic models, learning for Graham, as for Sandra, is also crucially connected to the ability to relate to others in specific ways, and indeed to the possibility of communicating with *new* groups and communities.

Looking at talk about learning in context also creates space for discussion of stories that cannot be forced into any kind of category. Patricia (43,) for example, is coming into higher education with a paralysing fear of education that reaches back to her experience of an oppressive convent school in Ireland. She describes herself as waiting, like a blank sheet, trying to talk herself into positive thinking, wondering where university learning is going to take her. She wants to ‘get the piece of paper’ to verify her many

years as an unqualified social worker, but she also hopes university learning will show her something in herself that others have seen in her, that she cannot see herself. Her image is of a field of clamped up daisies, waiting for the sun. Rose (40s), after an adult life in journalism and horticulture, now wants to be a psychologist. Her definition of learning is 'joy', and her image is of a blackbird singing. Simon (30s), after a decade or so of running his own driving school, now wants to take the path that his parents persuaded him away from in his teens, towards becoming a biologist. Simon's definition of learning is 'getting and processing information relevant to the topic', in all situations, whether crossing the road or doing a degree, and his image is the cross on his printer test page. These orientations towards learning are characterised by difference, rather than similarity. Each person, seen within their own context, appears to be an 'exception' to the kinds of rules which might be created by other kinds of approach to analysis. Their exceptionality, however, cannot be said to be random or meaningless.

Conclusion

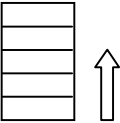
This chapter has used two types of analysis to explore metaphors in talk about learning in Higher Education. The focus on these two areas in the more conventional analysis raised a number of questions about the differences, and the similarities, between learner discourses and the official discourses of Higher Education learning theory. It was then suggested that this analysis, whilst providing some useful insights, nonetheless created only one possible picture. Searching for a way in which it might be possible to illuminate more of the situated, located nature of learning, theories of complexity and emergence were introduced as a possible way of creating a different kind of framing. This approach does appear to contain possibilities for the creation of a different kind of perspective on learning. Examining descriptions and metaphors in context suggested that each individual account of learning was characterised by *difference*, in contrast to the similarity groupings which emerged from the first analysis. The difference in metaphor and story, however, was not random or idiosyncratic at this individual level. Seen in relation to other elements of each participant's story, the use of description and metaphor was part of a patterning in each case which articulated something of the *meaning* of learning in higher education for each participant. Further exploration of this type of patterning could contain possibilities for the development of additional perspectives on higher educational learning, which might help to bring important aspects of learning out of the shadows inevitably cast by mainstream pedagogical theory (Rowland, 1993).

References

- Biggs, J. (1999) *Teaching for Quality Learning at University* Buckingham, Open University Press
- Bosma, H. & Kunnen, E.S. (Eds) (2001) *Identity and Emotion* Cambridge, Cambridge University Press
- Byrne, D. (1998) *Complexity Theory and the Social Sciences* London, Routledge
- Cilliers, P. (1998) *Complexity and Post-modernism* London, Routledge
- Cullen, J., Hadjivassiliou, K., Hamilton, E., Kelleher, J., Sommerlad, E., Stern, E. (2002) *Review of Current Pedagogic Research and Practice in the Fields of Post-Compulsory Education and Lifelong Learning* London, The Tavistock Institute
- Entwistle, N. (2000) Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts *Paper presented at the Teaching Learning and Research Project Annual Conference* Leicester, November, 2000
- Haggis, T. (forthcoming, 2004) Meaning, Identity, and 'Motivation': Expanding what matters in understanding learning in higher education? *Studies in Higher Education* 29.3
- Haggis, T. (2003) Constructing images of ourselves? An investigation of 'approaches to learning' research in higher education, *British Educational Research Journal* 29, 1. pp. 89-104.
- H.E.F.C. (1999) *Institutional Learning and Teaching Strategies* 99/55 Bristol, Higher Education Funding Council
- H.E.F.C. (2001) *Strategies for Learning and Teaching in Higher Education* 01/37 Bristol, Higher Education Funding Council

- Light, G. & Cox, R. (2001) *Learning and Teaching in Higher Education* London, Paul Chapman
- Lillis, T. (2001) *Student Writing* London, Routledge
- Martinez, M., Sauleda, N. & Huber, G. (2001) Metaphors as blueprints of thinking about teaching and learning *Teaching and Teacher Education* 17 pp.965-977
- Marton, F. & Saljo, R. (1984/1997) Approaches to learning *The Experience of Learning* Edinburgh, Scottish Academic Press
- Prosser, M. & Trigwell, K. (1999) *Understanding learning and teaching* Buckingham, Open University Press
- Prosser, M. Ramsden, P. Trigwell, K, Martin, E. (2003) Dissonance in Experience of Teaching and its Relation to the Quality of Student Learning *Studies in Higher Education* 28, 1. pp. 37 - 48
- Rowland, S. (1993) *The Enquiring Tutor: Exploring the Process of Learning* London, Falmer Press
- Savin-Baden, M. (2000) *Problem-based Learning in Higher Education: Untold Stories* Buckingham, Open University Press
- Taylor, W. (Ed) *Metaphors of Education* London, Heinemann
- Thornbury, S. (1991) Metaphors we work by: EFL and its metaphors *English Language Teaching Journal* 45. pp.193-200

Metaphor comparison

Metaphors of the 'official discourse'	Metaphors used by participants
<p><i>Deep & surface (approaches to learning)</i></p> <ul style="list-style-type: none"> • Understanding the subject. • Subject in a lot of detail (specialist knowledge valued). • University learning task • Independent learning, autonomy 	<p><i>Round and surface</i></p> <ul style="list-style-type: none"> • Enjoyable engagement with subject • Complete, round, whole – personal understanding of self and world • Relational – sharing knowledge, knowledge to help others <p><i>Width and opening, as well as depth</i></p> <ul style="list-style-type: none"> • Branching out, thinking laterally, broader, wider • Mapping, answering questions about the world • Opening up
<p><i>Moving upwards: hierarchy of conceptions of learning</i></p>  <ul style="list-style-type: none"> • Articulated around one dimension (view of knowledge) • Clear progression from one cognitive level to another • Coherence between conception, approach, outcome • Pathologies, dissonance, incoherence, confusion, aberrance, deviance, disintegration 	<p><i>Climbing over, battling through obstructions.</i></p> <p><i>Rising up to rarified atmospheres</i></p> <ul style="list-style-type: none"> • Articulated around multiple dimensions, expressed in relation to life path <ul style="list-style-type: none"> • A life that makes better <i>sense</i> (Jack, Sheila, Nigel) • A life that is <i>fairer</i> (Will, Graham, Nigel) • A life that <i>has more</i> (Sandra, Susan, Tim, Simon) • A life that <i>relates</i>, that <i>shares</i> (Sandra, Graham) • A life that <i>gives me a job</i> (Kathleen) • Struggle, challenge
<p><i>Mind</i></p> <ul style="list-style-type: none"> • Meaning as subject knowledge • Disembodied, de-contextualised 	<p><i>Body, mind, and being</i></p> <ul style="list-style-type: none"> • Learning as an expression of desire • Learning as authoring the future • Learning as the creation of new kinds of being
<p><i>Policy and institutional agendas: moulding and producing in an educational context</i></p> <ul style="list-style-type: none"> • Which teaching approaches produce the better outcome? • How does assessment affect outcome? 	<p><i>Personal agendas: enlarging, expanding, clarifying, opening, mapping in context of wider life</i></p> <ul style="list-style-type: none"> • HE learning as an answer to philosophical/ existential questions and desires