

RESEARCHING EDUCATION THROUGH EMBODIED KNOWLEDGE: MA STUDENTS' PRACTICE-BASED DISSERTATIONS

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ABSTRACT

This paper argues for the potential of visual arts practice as a way to research educational phenomena within the field of art education. Drawing on aesthetic and semiotic theory an attempt is made to provide a framework for understanding how embodied and metaphoric action can help interpret education in practice. An examination of two installations by students following an MA in Art and Design in Education demonstrates how embodied practices (here, making in art, craft and design) can be reconfigured as a mode of enquiry into education. Specifically the argument centres on the ways students explore their situated, pedagogic practices by deploying interdisciplinary, multimodal strategies for representation, analysis, interpretation and metaphoric equivalence, a process that complements social scientific methods.

CONTEXT: PRIVILEGING THE WRITTEN WORD

Although learning is increasingly recognised as a multimodal, social process (Kress et al. 2000; Cope and Kalantzis 2000) researchers within the field often follow monomodal, abstract procedures when enquiring into educational phenomena. Their preferred qualitative methodologies: action research, discourse analysis, ethnography, tend to favour words (speech and text) as primary data and/or as a means to describe and analyse visual and actional phenomenon (Prosser 1998; Rose 2007). Such methodologies also encourage the use of writing and/or number to formulate and present findings and to make recommendations and inform policy. In this way writing becomes the privileged vehicle for theorising and evaluating pedagogic practice, reinforcing and perpetuating the traditional mode of social scientific research. Bernstein (2000) suggests 'that the key to pedagogic practice is continuous evaluation... Evaluation condenses the meaning of the whole device... The purpose of the device is to provide a symbolic ruler for consciousness' (p. 36). The limitations of language-based analysis and evaluation therefore potentially limit consciousness by overlooking other forms of knowledge production. In claiming this I do not wish to belittle the central position of written language as a significant form of knowledge production within the field, only to question the way it is privileged. The hierarchical monomodality that underpins this emphasis has been critiqued from a number of quarters, notably by Kress and Leeuwen (2001) who note the rupture between the everyday practices of an increasingly digitally literate population and the singular musings of academe. But this hierarchy is particularly felt by educationalists whose habitus, dispositions and professional skills gravitate towards modalities other than word and number and this is notably the case with art and design educators.

For instance, many of the students who join the MA in art and design in education at the Institute of Education, University of London are practising teachers or artists working in education and they are particularly skilled at representing experiences and designing the built environment in multimodal forms (acoustic, kinaesthetic, [olfactory] tactile, visual). Within the field of art education, there is little problem in recognising the legitimacy of such activities as a form of knowledge production. However, in educational research, this form of knowledge is often deemed inappropriate. Presumably, this non-recognition relates to the way in which such practices, although they may be educational in themselves, do not explicitly investigate, analyse or evaluate artistic practices as educational processes: they do not represent the process because they are the process. But these processes are a form of knowledge embodied through action on and with materials designed for and within specific physical and cultural environments; the persistent prejudice against such forms of knowledge requires a firm rebuttal through a short detour into aesthetic theory.

Theoretical position

1) Embodied subjectivity

In his examination of Western aesthetics Crowther (1993) seeks to determine why humans have invested so much (disinterested) energy in making beautiful and sublime works of art. He argues that such artefacts serve little purpose in most practical senses although they may have a representational and thus ideological function. He takes an historical perspective claiming that the special cognitive abilities which have ensured human survival have evolved into a form of self-consciousness that allows one to 'ascribe experience to oneself' (p. 150); he goes on to claim that art is 'nothing less than the conservation of human experience itself' (p. 7). The basis for the evolutionary process of self-consciousness is a type of self-knowledge circumscribed by three embodied

actions: 'attention', 'comprehension' and 'projection'. The first, *attention*, is a fundamental type of wakefulness in which people's senses are fully engaged with the phenomenal world, a capacity that is pre-reflexive and within which the subject experiences an 'ontological reciprocity'; a knowing how (to be in the world). By *comprehension* Crowther means the organisation of perceptions into concepts, particularly categories of sameness and difference, through which people orient themselves in relation to their environment; knowing that (this is so). *Projection* is the ability to organise the spatial and temporal matrix of experience into a history using the memory and imagination to structure the past and potential future; knowing what was and might be. Crowther develops these understandings by positing three further capacities which he determines differentiate human from animal consciousness: *reversibility*, that is the knowledge that one is seen as well as a seeing agent, in other words that one is in the world at the same time as being of it; *species-identity*, a sense of 'shared existential space' (p. 151) through which, in interaction, people construct identities and negotiate boundaries; and *personal freedom* which is the recognition that one can choose and make decisions, a capacity that Crowther argues 'brings with it notions of responsibility, culpability, and achievement' (ibid.): a self-conscious person is thus a seeing/seen being who must negotiate the need to belong with the desire to act as an autonomous agent.

For Crowther self-consciousness is the necessary condition for humanness, and it is this selfsame capacity that is central to the reflexivity of contemporary (educational) research, whether it is called 'reflection-in-action', 'metacognition', 'meta-reflection' or whatever (Schon 1987; Bourdieu and Waquand 1992; Reinharz 1992). Self-consciousness is also the basis for making and appreciating art for, although *enhancement* – or gaining pleasure through perceptual and cognitive contemplation – is an immediate stimulus in the search for aesthetic experience, *reflection* is also a consequence:

In this, the relation between the necessary factors in self-consciousness is made into a concrete and sensible object of experience, that is, rather than being articulated in experientially private or intellectual analytical terms alone, it is encountered as an object in symbolic form at the level of perception itself. This means that self-consciousness is able to articulate and comprehend itself in a way that draws on both the senses and cognitive powers functioning as a unified field. It comprehends itself, in other words, at the level which is most fundamental to us – that of our reciprocal interaction with the world as embodied subjects (Crowther 1993, p 154).

But this reflection is not only a product of reception alone, it is a crucial element within the productive process itself, a person's actions upon and within the world, and this fact of embodiment is central to Crowther's thesis. Drawing on Merleau-Ponty he is able to claim: 'our most fundamental relation to this world is not that of an inner "thinking subject" gazing out upon an "external" world. Rather we *inhere* in the sensible. Our engagement with Otherness is achieved through the body's sensori-motor capacities operating as a *unified field*' (p. 1). Matthews (2003) finds instances of this kind of attentive, bodily engagement in children's painting:

...when young children use paint, their movements are far from merely mechanical in the muscles and joints; they look at what they do, and can vary what they do intentionally. They show and use knowledge; knowledge about the body and its potential in terms of action within specific contexts (p. 22).

It is just this kind of knowledge, produced through the capacity of the mind/body/environment to act as a unified field, that is denied within logocentric pedagogies. Indeed a similar charge can be laid at logocentric research methodologies, with their emphasis on abstract and analytical procedures reported through the transparent

medium of text and thus rendered 'objective'. What has been specifically denied in this historical process is the work that has gone on to develop the printed word as a transparent medium, as Elizabeth Grosz (1995) asserts:

The self-images of knowledges have always been and remain today, bereft of an understanding of their own (textual) corporeality. They misrecognise themselves as interior, merely ideas, thoughts and concepts, forgetting or repressing their own corporeal genealogies and processes of production. Knowledge is an activity; it is a *practice* and not a contemplative reflection. It *does things* (p. 37)

Polanyi (1964) has shown that embodied, practical knowledge, what he calls 'tacit' knowledge, is vital to human existence. By tacit knowledge he means something like the bodily ability to act in relation to things (which includes denotative speech) although his classic example is riding a bicycle. Such knowledge is the precondition for most social and aesthetic practice in that '*we can know more than we can tell*' (p. 4, italics in the original). It follows that not all practice is representable through language nor can it necessarily be taught through linguistic means. In this sense he might agree with Kant who contested in his Critique of Judgement (1790): '... by an aesthetic idea I mean that representation of the imagination which induces much thought, yet without the possibility of any definite thought whatsoever, i.e. a *concept*, being adequate to it, and which language, consequently, can never get quite on level terms with or render completely intelligible' (1988, p. 147). There are thus many historical instances and localities outside the contingencies of everyday life (those of the court, religion, city state, academy, avant-garde, internet) where people have attended to the needs of self-consciousness in highly specialised, non-linguistic, or partly linguistic, ways; art is only the most-concentrated, intended, individuated and embodied of self-consciousness' diverse manifestations.

Works of art are then, in the widest sense, a means through which people seek to gain recognition from others and transcend the finitude of their existence. The artefactual world is invested with and helps to produce a people's identity, sedimentations of personal and communal histories and futures that, in their least utilitarian form, as art, exemplify freedom within inherent constraint. As Crowther puts it: 'in such a work we have a concrete particular which is charged with semantic and conceptual energy. It is this integral fusion of the sensuous and the conceptual which enables art to express something of the depth and richness of body hold in a way that eludes modes of abstract thought...' (1993, p. 5).

What MA students are invited to do is to work with and in-between corporeal and abstract modes of thought/action, between constraint and freedom. This work is not necessarily achieved within the 'unified field' that Crowther theorises, because students have already experienced the disjunction between the different imperatives of aesthetic action and institutional pedagogies. In the present historical circumstances this disjunction produces a tension that often becomes the focus for investigation.

2) Multimodality

Before looking at the educational implications of this disjunction, both in the context of art education and in relation to research into the same, I wish to develop my argument with reference to semiotics, specifically Kress and Leeuwen's notion of multimodality (2001). I do so both because it is timely in relation to a historical moment of transition, the turn towards the visual/aural that has accompanied modern and contemporary modes of multi-media communication, and because, to some extent, the authors' theoretical position is critical of and counter to

the transcendental aspects of the aesthetic theory outlined above (although both have materialist foundations). However, I am going to focus on points of convergence and shall begin with a point of agreement.

In outlining the aims of a theory of multimodality the authors make a claim for embodied consciousness, they state:

A semiotics which is intended to be adequate to a description of the multimodal world will need to be conscious of forms of meaning-making which are founded as much on the physiology of humans as bodily beings, and on the meaning potentials of the materials drawn into culturally produced semiosis, as on humans as social actors. All aspects of materiality and all the modes deployed in a multimodal object/phenomenon/text contribute to meaning (p. 28).

In their work on visual semiotics (2006) the same authors have demonstrated how conventions of visual representation cohere over time and in specific cultural circumstances to form lexicons and grammars that in some ways echo the way language is structured. But they also point to differences:

What difference in kinds of meaning is produced in the use of different modes and materials – the kinds of meaning usually referred to as emotive, affective, aesthetic, and the kinds of meaning referred to as semantic, rational, logical, ideational? (2001. p 28).

These differences can be deeply felt by art and design practitioners who may find the criteria for scholarship: categorisation, comprehensiveness, exactitude/pedantry and systematic consistency, counter to the empathetic integrity and intuition they may often bring to their work. However, the more explicitly discursive practices of the MA invite students to consider their making not as an autonomous, passion-led and potentially solipsistic activity but as a multimodal text intended to contribute to knowledge in the pedagogic field. Within the limitations of a given space, both the traditional bound report, and a finite, equitable area within the studio complex, students following the exhibition option articulate and/or respond to specific educational discourses through the organisation and transformation of materials as carriers of meaning and as resources for meaning making. What materials they select and the processes whereby they appropriate, juxtapose, transform and install them sets up a multi-layered text, which, as Kress and Leeuwen discuss in relation to the house as text, creates new modes and possibilities for discursive formations: 'articulatory modes which were formerly tangential, marginal, or not fully utilised and developed as modes are being drawn into the centre of semiotic practice. Here they provide new materialities and a more insistent appeal to the sensory/bodily aspects of communication' (p. 36).

For example, Kress and Leeuwen look at instances from publishing to demonstrate how colour is used to suggest particular meanings (2001, pp. 25-29). In this respect, colour is not, in itself, a mode but becomes one only once it is given attention to as a material that can be applied to a socially specific design. Such designs are an aggregate of signs organised by sign-makers into a 'text' to denote or connote meaning(s) grounded both in the particularities of each sign (with their specific sensuous and referential affordances) and in their interrelations within the ensemble. This intertextuality inevitably brings with it allusions to wider discourses, which may be more or less direct depending on the rhetorical devices that sign-makers believe will be received by specific audiences in the ways intended:

... we see colour as a signifier (in the way in which we see all semiotic resources as signifiers at the point of sign making), which is drawn into sign-making, and is given its signified by the maker of the sign in the

context of the specific discourses in which and through which the sign-making happens. This means that, as with all signifiers, the signifier material neither fully specifies what the signs which are made can be or will be... nor means that the potentials of the signifier material are completely open... Rather, a specific colour, as signifier, has, first of all, of itself, a potential for meaning as a signifier due to and in its materiality and interaction with the physiology of bodies (p. 59).

Now all signs need a material signifier, a sensuous form through which the concept (signified) is made available for interpretation (signification), but the modality of each signifier has particular affordances. A spoken word, 'oasis' comprising distinct phonemes is produced orally and received aurally, but its significance may move the interpreter away from the sounds as sensuous form to some proximate, distant or imagined object, say urban parkland; in this sense the spoken word is primarily a symbolic resource requiring the interpreter to have knowledge of the rule by which to decode it within its specific social context and thus arrive at the object to which it refers, at least to a proximate one. Now colour may not work in this way because of the insistency of its materiality both as carrier of and destination for its meaning. If blue is used to refer to airiness and summer days (as in Kress and Leeuwen's example), it does so through indexical rather than purely symbolic means, relying on the lived experience of the interpreter to move from blue, to sky to blue again and on to sea, to blue, to shadow, to blue and so on. Crowther refers to this process as a recognition of 'an original or exemplary sensuous particularity' (1993, p 117) attended to and comprehended 'not, that is, through any intellectual operation of subsumption, but by taking up on our own account the mode of existence adumbrated before us' (Merleau-Ponty in Crowther 1993, p 104).

The MA installation space with its organisation and display of similar or diverse materials therefore provides students with a complex and inexhaustible vehicle for the deployment of multiple modes, and puts into play a whole host of assumptions and presumptions about what constitutes knowledge, research and its comprehension and assessment, particularly in the degree of sensuous attention and abstraction, immediacy and reflection required to make and interpret its juxtapositions and configurations, disunities and convergences, fixities and ambiguities.

THE EDUCATIONAL IMPLICATIONS OF EMBODIMENT

Within the school curriculum and within the academy the arts hold both a marginal and elevated position, for while they do not conform to the criteria of science, they answer both more fundamental and idealistic needs. It may follow that by engaging in making works of art, craft and design students gain insights into the embodied nature of their existence and of the way that learning takes place through a personal engagement with the affordances of material resources (the stuff of life) in dialogue with historical traditions (the valued) and future possibilities (the not yet thought); this is the fundamental dimension in which their inherence, with all its constraints, is realised as a potential. However, with these historical traditions and futures in mind, it is not surprising that the focus of radical educators has been on the non-equitable power relations of most social formations within patriarchy, a process of critique that has exposed the structures of privilege that dominate social institutions such as education (Foucault 1961; Bourdieu and Passeron 1970; Freire 1990). This has entailed the development of highly sophisticated analytical tools which have been used to reveal the unconscious processes through which humans are enculturated to their practices, whether through ideology (Althusser 1971; Bourdieu 1993) psychodynamic processes (Freud 1923) a combination of the two (Zizek 1989) or a more fluid

understanding of desire (Deleuze and Guattari 1972). The alienated world, the object of this critique, is however, constructed and lived by people who, after gaining survival, seek recognition, pleasure, fulfilment. The idealistic function of art relates to this need, the way art is made and used by people to imagine a sense of non-alienated labour, and beyond this how it makes possible the hope, not of its sense, but of its sustainability, a recuperation of the same. This is a huge claim but Crowther (1993) for one, makes a powerful argument for its validity albeit an unfashionable one within the institutional theories of art that dominate contemporary discourses in the field (Bourdieu 1984).

MA students are encouraged to think seriously about the significance of embodiment as a means to explain the difference and complementarity of art practices, but they are also advised to approach the transcendental aspects of the theory with a degree of scepticism, questioning the basis of such beliefs and their claims for rationality. In this way they are invited to engage with the critical turn, a historical necessity for the project of social justice (Giroux 1992), by self-consciously positioning their making within the structures that the project of critique has exposed. Students often choose to further question these structures as they are played out within the field of art education: the apparatus of display, methods of pedagogy, spatial organisations, power relations and modes of distinction. They do so by foregrounding the hidden mechanisms by which such systems have become naturalised; for example the way valued but denigrated modes of domestic display provide a malleable, educational resource that sustains patriarchy while simultaneously questioning it by embodying a matrifocal sensibility (Caroline Saynor 2006). But students are also critical of the way their making may be being corralled into a process, systematic research, which can be antithetical to its usual goals. They therefore sometimes choose to question the analytical tools themselves: positing ambiguity as a goal, deploying aleatory procedures, fabricating non-linear, post-causal structures, valorising humour and parody, collapsing boundaries and hierarchies (Dafiotis 2006).

Because, however, the context of their making, the imposed criteria as it were, is limited to educational research, MA students who choose to follow an exhibition option have to deploy pragmatic strategies to realise their research in the form of a display/installation. Now, say that one student's work is predicated on *site-specific sculpture* and that the site of their choice is elsewhere to the exhibition site, then the way of recording the work in situ becomes in itself a methodology through which to analyse what s/he deems significant and representable, it codifies and presents through a combination of (let's say static) modalities what may be a temporal, kinaesthetic and contingent occurrence. Likewise, a significant number of artists today work in ways that may be described as *socially engaged*, for example where they work with a community to explore, represent and communicate perceived or emergent needs (Lacy 1995; Bourriaud 1998; Kester 2004). Here the student might construct an exhibition that conforms to documentary conventions, with their supposedly objective, impartial criteria, or they might expose the partiality of this selective process by presenting the whole mass of data and asking their collaborators to continuously remake the exhibition day-on-day, re-using and re-configuring available resources or intervening into existing displays. Here questions of authorship are severely questioned, as are clear distinctions as to what constitutes art, education and/or research.

Instances

I wish to look at two instances where students have engaged with the spaces between pedagogic and making practices and discuss how such engagement adds up to a form of educational research. The instances I have chosen revolve around two of the most intransigent strengths/weaknesses of art education and educational

research, the privileging of the word over other modes and the clear distinctions and territories established and reinforced to keep disciplinary boundaries in place (see Addison 2003).

Instance One

Jo is an art teacher at an international middle school. She comes from a highly educated, literate family where language is enjoyed and used in exacting and playful ways. She also has a background steeped in multimodal making through her experience on both a BA and MA in fine art. Although the curriculum of the International Baccalaureat, which her school follows, might seem even more logocentric than the English National Curriculum, she claims that she experiences greater freedom in designing students' pedagogic experiences than the peers she has spoken to who work in the state sector. Nonetheless, the place of the word in her family habitus and the significant, inhibiting effect of word as theory during her first higher degree, have foregrounded the uneven power relations between word and image within academic institutions and this imbalance became the basis for her research.

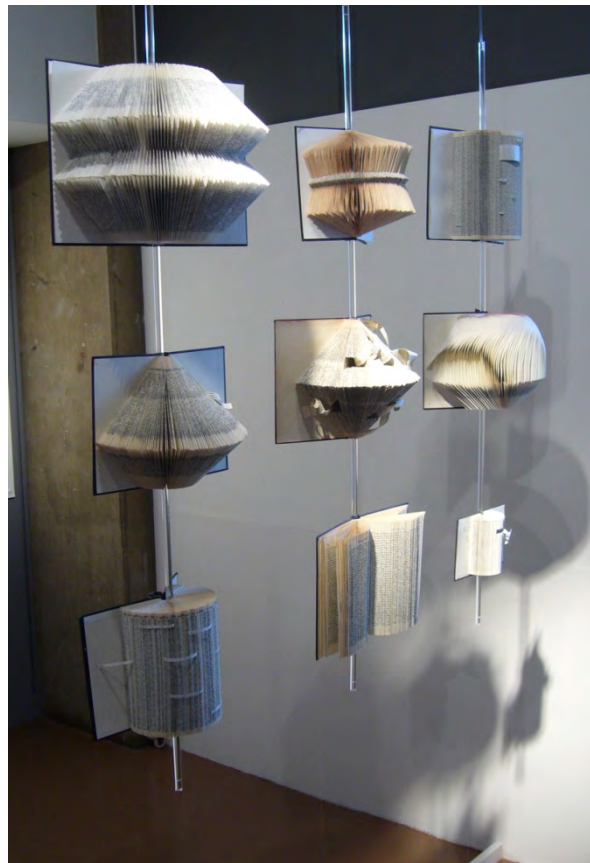


Figure 1. Jo Evans, installation 2007

This took a number of forms. First Jo aimed to question the sanctity of the word as enshrined in its most corporeal manifestation, the book. Like John Latham in his 'God is Great 2' (1992; Tate) she did physical damage

to the sacred object, but, in place of bisection and burning, cut into it, fanning out its leaves, bending and reconfiguring its morphology and its texts. Further, the books she selected are no ordinary books, but dictionaries, the site of scientific exactitude and definitive meanings. What emerged is an extraordinarily pristine and robust series of sculptures which she installed to suggest a library schema, those fortress-like edifices of collective and cumulative knowledge that symbolise and reproduce the hierarchical primacy of the word. Second, she deployed, in two ways, a transcript of a conversation that took place between herself and her ten-year-old students in which they discussed one of these sculptures. She projected back from the grid of book/sculptures extracts from the transcript realised as a woven text (in her report she spends some time looking at the etymology of 'text' noting its original relationship to 'textiles'). These skeins of filigree words are unreadable except where light renders them visible through their cast shadow. Jo extracted statements from the discussion transcript which she deemed significant and thereby excluded most of the talk from the display, a process of selection that mimics the way the voices of young people in institutional settings are subject to the attentional focus of authority/research. This same transcript is however presented in her written report unedited, printed alongside an analysis of her working practices, a contrapuntal device that interrupts, complements and occasionally converges with the linearity of her academic prose. But this choice transgresses institutional rules, as she makes evident in her reflections:

The format of this dissertation, combining a written component with art practice, provided a further challenge and I found it difficult to envisage how the two would function together without one being merely an illustration or explanation of the other. This became particularly apparent when reading the ... rules for binding a dissertation, which in their rigidity prevent any experimental combination of word and image, thereby forcing image into an illustrative role (Evans 2007, pp. 4-5).

To overcome this limitation she decided to produce a fourth bound report (one more than stipulated) embodying the way she would have wished all of them to be presented for assessment and dissemination, a report that she chose to integrate within her installation. This artefact demonstrates the ways in which assessment criteria can restrict possibilities. Indeed, in this instance, had Jo adhered to the rules, her research findings would have been constrained to a theoretical possibility alone, the possibility of questioning and indeed collapsing the opposition between word and image. In its fourth manifestation, as both installation and report, possibility becomes act(uality).

Jo's research process can be seen as a multifaceted one in which she deploys a raft of methodologies and practices to help her ask the questions she poses. In this way she is able to interrogate entrenched oppositions in such a way that the power relations they produce and maintain are put into doubt, denaturalising historically accumulated privileges and embodying sameness and difference in one installation. While acknowledging and obeying the rules her work also highlights their inadequacies and thereby questions the authority of the institution. Significantly, her practice-based methodologies, by engaging with processes of sensuous making and the taxonomic and spectacular functions of display, not only state but demonstrate the truth of her findings.

Instance two

Victoria Hurr studied at a school of architecture and has since taught art at secondary level in both the independent and state sectors. Her pedagogy is driven by a desire to extend the possibilities of making within the context of schooling and particularly to demonstrate how different forms of knowledge can migrate across disciplinary boundaries to question and revitalise conventional and orthodox practices.



Figure 2 Victoria Hurr, Fold 2006 (see attached image)

Her research took a theoretical text, Deleuze's philosophical meditation on the fold (1993), as an incitement to revisit her own making by taking an action, folding, and subjecting it, and thus herself as actor, to an exploration of its structural and metaphoric possibilities. By utilising the architectural modelling process of cutting and folding paper Victoria made concrete some of the implications of Deleuze's thinking, particularly the way in which the fold undoes oppositions such as inside/outside, centre/periphery, above and below. In addition to the development of a type of 'soft', architectonic sculpture these spatial reconfigurations allowed her to reconceptualise both the physical spaces of art educational practice and the symbolic spaces that bound disciplinary practices, especially those between the visual arts and science. The source of the paper that she selected for folding was threefold: the assessment matrices for the GCSE, architectural plans for both the IoE library and her school's art and science departments, and her own ongoing exploratory/reflective diary. The two former sources were indicative of the types of reductive, limiting and thus inadequate schema often imposed on usage in order to predict and determine types of practice. Initially she traced the plans to simulate and replicate the reproductive protocols of schooling but then subjected these tracings to procedures of folding which yielded what she calls (after Deleuze) 'deterritorialisations'. This process of remapping, juxtaposition, correspondence and interchange set up new relations and, at the level of metaphor, the possibility of a more fluid pedagogy.

In practice, within her teaching, Victoria appropriated and displaced both mathematical procedures and the aleatory practices of some contemporary artists to encourage her science/art students to investigate and play with disciplinary-bounded forms of knowledge. In this way outcomes were not predetermined by prototype or constrained by theoretical categories but conditioned by a combination of material and spatial constraints and the degree of energy students were able to give (often related to degrees of emotional investment).



Figure 3 GCSE students' automatic drawing machines 2006

Likewise, Victoria's research methodology was extraordinarily open-ended, a fluidity developed in response to Deleuze and Guattari's notion of rhizomatic method, one 'entirely orientated toward an experimentation in contact with the real... [which] fosters connections between fields. The map is open and connectable in all of its dimensions. It is detachable, reversible, susceptible to constant modification' (2004, p 13). This flux injected an element of risk into Victoria's final installation specifically in relation to the soft sculpture whose 'end' point was neither defined through the realisation of a pre-determined outcome, nor by some form of aesthetic 'resolution', rather it emerged through a series of actions, folds and suspensions, articulated within self-imposed material, spatial and temporal constraints (the stash of paper, available studio space and the time-tabled period for installation).

CONCLUSIONS

These embodied investigations entail implementing a model of continuous action and reflection-in-action (Schon 1987) in which a productive dynamic is set up between learning through making, thinking about making and learning through making, and representing these relationships. This dynamic results in a series of interdependent, embodied actions that offer a different temporal sequence to the post-event deliberations of much analytical educational research. Within this model the key issues for research are not necessarily determined prior to the research design, rather they emerge from the dialogue between artistic and pedagogic

practice as afforded by the students' negotiated research brief. Students are then invited to reconfigure the various embodied outcomes in the form of an installation, a practice that is semantically and syntactically rich (as demonstrated by the examples proffered here) and which offer descriptive, analytical, embodied and metaphoric understandings of educational phenomena.

In relation to Crowther's framework for self-knowledge (1993, see above) it could be said that through practice-based research students engage with his three categories by following a series of deliberate (or semi-deliberate) and sequenced acts. They *attend* to an aspect of their pedagogic practice because it is of interest to them, it presents a problem to be solved, or it provides an immersive ground out of which issues worthy of investigation (of interest within the field, or related fields) might emerge. Students *comprehend* the situation under investigation by organising their perceptions in relation to events as they happen (using field notes, lens-based records) as they occurred (reflections, interviews etc.), by exploring the field of practice (both pedagogic and artistic through literature/exhibition reviews) and by recognising emergent concerns (conceptualised through codings, collections, collaborations, practice-based experiments/explorations). They *project* this experience by constructing a multimodal, intertextual dissertation (the exhibition and written report/thesis), which forms a dialogic unity where theory and practice are mutually informing, interdependent and interpenetrative. For Crowther such acts, along with art, might appear to be a conservation of experience (1993) but it can be added that they are not only capable of representing but producing experience.

The significance of Kress and Leeuwen's deliberations suggest that as in all social situations meaning is made through and across modes, it therefore becomes incumbent on researchers both to acknowledge this truth while seeking ways to represent/embody the richness and thickness of such meaning making in ways that approach the phenomena themselves. A dialogue between two privileged modes (word and image) in combination with attention to material and actional culture is at least a start.

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