

CREATIVITY: A HIGHER ORDER CAPABILITY

Investigating:

How creativity is made teachable in design education.

By

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C02042: Doctor of Education (EdD) Dissertation

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CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledge within the text.

I also acknowledge that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Date

10 November 2005
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ACKNOWLEDGEMENTS

Personal interest in Creativity: A Higher Order Capability emerged whilst completing the Master of Education (in Adult Education) degree at the University of Technology Sydney (UTS). Preliminary research was initiated at masters level into debates surrounding professional education and the increasingly problematic qualitative challenges associated with adequately addressing holistic creative development of self-motivated and self-directed learners within a rapidly narrowing competency based training framework in Australia and elsewhere. International investigations into ways and means of preserving and enhancing creativity constitute matters of ongoing concern in my professional field of design education. Hence, the proposed pedagogic differentiation of creativity as a higher order capability was timely and provided a basis for entry into the Doctor of Education program at UTS. I wish to acknowledge the academic guidance of my supervisor Professor Paul Hager as well as the intellectual and practical support I received as a postgraduate student in the Faculty of Education at UTS.

I am currently employed as Director of Education at the Whitehouse Institute of Design. This is a prominent post-secondary provider of private design education and training located in Sydney, Australia. The responsibilities of this professional position demanded up-to-date knowledge, reconciliation and implementation of evolving research and policy dimensions in design education in relation to school, vocational and higher education curriculum development and course delivery. This professional experience has provided me with invaluable insight into cross sector educational priorities and practices during a period of extraordinary change. This change affected all sectors in different ways in response to rapid advances in innovative technologies, market globalisation and environmental consciousness that impact directly on the social relevance and cultural practice of design and design education. I acknowledge the personal support and encouragement of my employer and the co-operation of my professional peers in allowing me to bring this EdD research into Creativity: A Higher Order Capability to fruition. In particular I acknowledge Leanne Whitehouse for permitting me the time and flexibility to complete my studies. Various professional colleagues acted as impartial expert readers on final draft chapters. Also Professor Richard Buchanan, of Carnegie Mellon University USA, critically reviewed the 'Operational Model of Creative Questioning'.

Concurrent with my employment and EdD candidature I have also served as a member of the NSW Committee of the Australian Council for Private Education and Training (ACPET). In this capacity I acknowledge access to advanced research, privileged analyses and delegated participation in various executive forums and national consultation meetings. My representation of ACPET at these events contributed to Industry Training Advisory Board (ITAB), NSW State Government and Commonwealth Government development and revision of policies, procedures and implementation in vocational training and higher education with a focus on the creative industries. This includes an extended period sitting on the Board of Art Training NSW and the CREATE Australia (ITAB) steering committee for development of Phase 1 of the national Visual Arts, Craft & Design Training Package to Certificate IV level. While this experience did not specifically inform my doctoral research into creativity, it provided a critically significant point of departure for building pedagogic arguments discussed in the thesis.

As a member of the Design Institute of Australia (DIA) I acknowledge DIA support of my EdD research by circulating a questionnaire to members via the DIA email network. Return of unidentified completed practitioner survey forms was directed in hard copy through the UTS Faculty of Education to comply with the anonymity specified as a condition of approval by the UTS Ethics Committee. The DIA facilitated distribution of the survey instrument. The DIA had no input into development of the questionnaire and no access to data contained in survey returns. Analyses of the practitioner survey data provided in this thesis have not been published. I acknowledge that information gained from the qualitative survey of Australian design practitioners has been used to substantiate the perceived importance of creativity in design practice and design education and to help identify directions for further research.

Privately I acknowledge the significant logistical, emotional, intellectual and pedagogical support and encouragement of my partner Ian Tudor with whom I share a lifetime in arts and education as equals in all things. His invaluable contribution to my doctoral work began with the impetus to continue studying. He offered a mirror of critical reflection for testing my pedagogical assumptions and assertions. He was a tireless participant in all manner of research conversations and willingly provided expert facilitation of advanced information and communication technologies including the technical support and back up across multiple locations and computer systems needed to successfully complete the EdD project.

Finally I acknowledge the love and tolerance extended to me by my mother Jean Brown and my two adult daughters Rebecca Tudor and Imogene Tudor from whom I have stolen the time required to undertake this investigation over a period of six years.

PREFACE

The Doctor of Education (EdD) is a professional doctorate. It is distinguishable from traditional PhD studies by an applied academic focus on designated areas of professional practise. An important goal of EdD research is to produce ‘useful knowledge (that makes) a contribution to the development of professional workers *in the field*’ (Brennan 1998, pp. 69-76). Creativity: A Higher Order Capability is a primarily conceptual EdD thesis. It concentrates on explicating the multidimensional relevance and operational roles of human creativity at the intersections of three professional domains in Design, Education and Design Education. The thesis explores conceptual and theoretical underpinnings for creativity in design education using new and existing knowledge to inform and potentially improve creative practises in teaching and learning. The thesis does not present a procedural approach to design or teaching practises. It does not research or recommend particular formulae or techniques or ‘recipes’ for selecting design content or sequencing design exercises or setting interesting learning assignments or making studio or classroom activities more measurably creative. Instead the thesis draws on very wide ranging research to examine the holistic nature of human creativity as ‘lived experience’ for design practitioners, teachers and students. The thesis expounds the situated dynamics impacting self-knowledge and identity formation in design disciplines. This is coupled with analyses of interpersonal design development and action, in terms of integrated creative embodiment, which both determines and sustains creative ‘performativity’ in relation to pedagogy and ongoing professional design practise throughout life. In this respect the thesis moves beyond a cognitive preoccupation with ‘creative thinking’ and procedural ‘problem solving’ processes. Instead this EdD investigation seeks deeper philosophical, physiological, psychological and sociological insights into what it means and feels like to knowingly ‘be creative’ and actively teach for creativity in design education. This has pedagogical relevance in community learning environments, schools, vocational colleges, universities, other higher education institutions and professional development contexts including teacher education. Emphasis on design education in the thesis necessitates a primary focus on visual experience, perception and communication. The specificity of other applications of creativity in music, dance, theatre, literature or the sciences for example falls outside the scope of this dissertation. Nevertheless, many underlying pedagogic principles for better appreciating creativity as an embodied higher order capability may also be pertinent to improving practises in other creative arts fields and associated professional domains.

Completion of this thesis on Creativity: A Higher Order Capability coincided with recent re-engagement with the importance of creativity in arts and education through major national and international initiatives. For example, the Prime Minister’s Science, Engineering and Innovation Council (PMSEIC) convened a Working Group on *The Role of Creativity in the Innovation Economy* to report late 2005. Also the Australia Council for the Arts hosted a national symposium titled *Backing Our Creativity: Education & the Arts – Research, Policy & Practice* in Melbourne 13-14 September 2005. This event represents the first symposium on creativity in education and the arts to be held in Australia in over a decade. Furthermore, the regional Australian mini-summit is a precursor to the UNESCO World Conference on Arts Education titled *Building Creative Capacities for the 21st Century* to be held in Lisbon Portugal in March 2006.

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ABSTRACT:

Creativity: A Higher Order Capability is a qualitative inquiry that marshals various interpretive strategies to address the problem of 'how' creativity is made teachable in design education. Theoretically, the themes of creativity, design and design education are contextualised and interrelated using selected historical and philosophical approaches. Of most relevance in building a more holistic appreciation of creativity, than that previously offered in the psychological research for example, are certain philosophical insights expounded in differing phenomenological traditions. In particular, theoretical insights into the experiential nature of creativity are drawn from an interpretation of 'being' offered by Martin Heidegger, coupled with a richly physical and sensate analysis of 'embodiment' proffered by Maurice Merleau-Ponty and the socially constructed 'intersubjectivity' provided by Alfred Schutz.

This research explores creativity in terms of higher order capability by focusing attention onto the role of qualitative human attitudes, values and beliefs, which contribute the indispensable emotive underpinning needed for individuals to acquire meaningfully enacted design knowledge, skills and processes through specialised educational practices. Other, more narrowly defined, scientific views of creativity are also canvassed, especially in relation to cognitive psychology and neuroanatomy. Pertinent avenues of educational theory are examined in relation to creative teaching practice. Most notably this includes Lev Semenovich Vygotsky's 'cycle of imagination', the culturally pragmatic perspectives of John Dewey, the principles of 'reflective practice' advocated by Donald Schon and the socially situated learning in 'communities of practice' articulated by Etienne Wenger among others.

It must be acknowledged that much relevant literature dates from the modernist era. This calls for close reading and critical review. Therefore a broadly postmodern perspective has proved useful in tempering and reconciling the researcher's own presuppositions with overly deterministic or contradictory assertions and recurrent reductionist tendencies in the literature. This also helps, when discussing creativity in terms of education, to expose many biased, limited and unhelpful assumptions that persist in confounding and inhibiting serious pedagogical engagement with creativity as an overt focus of teaching and learning. A more expansive understanding of creativity has been synthesised from differing historical and theoretical analyses of creativity. These have been compared with the implicit understandings of practising designers. Recent attitudinal data was obtained using a qualitative questionnaire circulated through the Design Institute of Australia (DIA) asking practitioners for opinions on the nature and relevance of creativity in design practice and design education in Australia.

The present study has seven chapters comprising an Introduction, followed by discussion of Design Context; Design Education; Understanding Creativity; Creativity, Philosophy and Education; Targeting Creativity in Design Education and a brief Conclusion. This draws together a weight of evidence from disparate sources to support the proposition that creativity is not a rare, indeterminate, unitary or linear consideration. Rather, it is asserted that creativity is best understood holistically as a fully physical, emotional and cognitive, as well as iterative and generative, human capability of a high order that is potentially

shared by all design teachers and learners working within overlapping communities of practice.

The cultivation of creative confidence in heart, body and mind through targeted teaching strategies requires development of multidimensional, highly interactive and participatory educational approaches. It is argued that such pedagogical approaches must begin with an awareness of the characteristically adaptive and fluid nature of creativity in response to change and the particularities of content, opportunities and circumstances governing each and every application. Teaching strategies may then be developed to prompt and sustain affective engagement with what it means and feels like to ‘be’ intentionally creative in a given field. This investigation argues that this can most readily be achieved when teachers and learners engage proactively with ‘potentialities’ via the production of future-oriented modes of learning. Creative modes of learning deal not so much with ‘what is’ but with ‘what-might-be’ using rhetorical questions such as ‘*What if?*’ and ‘*Why not?*’. Open-ended strategies like this operationalise creativity in education to stimulate curiosity and exploration, and guide praxis in design or indeed in any other field of endeavour where creativity is considered advantageous.

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