# Developing Personal Creativity through Lifewide Education

# **Norman Jackson**

# **SUMMARY**

In this chapter I set out a rationale for why higher education should be more concerned with the creative development of people. I outline four propositions that, if adopted would enable higher education to encourage and support students' creative development more effectively than is currently being achieved. I consider the nature of everyday personal creativity drawing on the work of Richards (2007) and Rogers (1961) and use the 'four-C model of creativity' proposed by Kaufman and Beghetto (2009) as a framework for understanding the significance and influence of a person's creativity. I identify the focus for personal creativity as the situations we encounter or create in our daily life and our ability to appreciate the opportunity and potential they hold. I relate this way of thinking to theories of learning and personal development that are holistic, action- and capability-oriented, self-regulating and selfactualising. It is in acts of self-actualisation (that include but go far beyond formal education) that individuals' personal creativities are revealed. I am attracted to Arten Sen's democratic idea that our capability represents 'the real opportunity that we have to accomplish what we value', and I connect this visualisation of personal engagement to the different spaces and places we occupy everyday of our life. I argue that by adopting a lifewide concept of education to embrace all the spaces and places for learning, personal development and self-actualisation in a person's life, higher education could do much to further the creative development of the students it serves and help build a more creative society.

# The social challenge

I am writing this article just a few weeks after London and many other cities in England have witnessed a breakdown in law and order as many young people have seized the opportunity in a riotous situation to destroy property and livelihoods and loot shops and warehouses. These acts are manifestations of a wicked problem within our society: a problem that manifests itself when people believe that they have the potential to achieve a better future for themselves and family.

'[the] future [that people aspire to] is not going to be delivered unless we change many of the ways in which we think and behave as citizens ..there is as it were a gap between our aspirations and the path we are currently on....'

<sup>&</sup>lt;sup>1</sup> Matthew Taylor (RSA Chief Executive) June 30th 2011. http://www.qaa.ac.uk/Newsroom/Events/Documents/Podcast%20Matthew%20Taylor.mp3

'a better future relies not just on security, economic growth and good government, but also on the development of more capable and responsible citizens' [with a stake in their own future!]

There are no simple solutions to such deeply rooted social problems but we need to recognise that such enhanced capability (which includes our creativity) and self-awareness of ourselves as responsible and engaged members of society can only be gained through deeper engagement with the world and considered reflection on our place and presence within it. Our formal educational structures have a pivotal role to play in contributing to both of these personal and social changes but these too also need to change if we are to create a more creative, self-aware and socially engaged society. My central educational argument is that formal education has to become more involved in the holistic development of people as they develop themselves informally through the whole of their life experiences. As a society we have to adopt not only a lifelong commitment to our own development as people but also to embrace the opportunities for continuous and transformative development that a lifewide approach to education affords. In this essay I consider the value of a lifewide approach to education in terms of the opportunities it affords for the development of capability that includes our creativity, in the belief that such an approach holds the potential for addressing some of the deep issues confronting our society.

# The problem with creativity in higher education

In thinking about creativity in higher education I found it helpful to problematise the idea (Jackson 2008) and embed it in the more familiar 'wicked problem' (Rittel and Webber 1973) of how we prepare learners for their future life. Directly or indirectly, the problem<sup>3</sup> of how we prepare people for a complex, unpredictable and ever changing world is the main force driving educational change in higher education and it will always be so. It goes to the heart of the moral purpose of education - to make a positive difference to students' lives. Helping students to recognise, develop and use their creativity is part of this 'wicked problem' and higher education teachers and educational institutions have an important role in students' creative development, particularly when creating educational designs within disciplinary contexts for study.

But the problem of creativity in higher education is not chronic, in the sense that most teachers and decision makers believe that there is an issue to be resolved. The problem is more a sense of dissatisfaction with a higher education world that seems, at best, to take creativity for granted, rather than celebrates the contribution that creativity makes to academic achievement, self-expression and personal wellbeing. The problem is not that creativity is absent but that it is omnipresent. That it is subsumed within analytic ways of thinking that dominate the academic intellectual territory (Jackson 2008). The most important argument for higher education to take creativity in students' learning more seriously, is that creativity lies at the heart of performing and learning in any context and the highest levels of performance involve the most creative acts of all.

But what institutions do in response to this challenge is only one part of the educational equation. Students are busy preparing, developing and actualising themselves through the

Revised August 27th 2011

2

<sup>&</sup>lt;sup>2</sup> Matthew Taylor June 2011 RSA keynote speech 'Enlightened Enterprise' http://www.businessgreen.com/bg/opinion/2077883/-enlightened-enterprise

<sup>&</sup>lt;sup>3</sup> More accurately the challenge and opportunity

many things they do outside formal education every day of their lives. I maintain that it is in these acts of self-actualisation (that include but go far beyond formal education) that individuals' personal creativities are revealed. The idea of lifewide education (Jackson 2011a<sup>4</sup>) embraces in an educational sense all the spaces and places for learning in a person's life. It is both appealing and valuable because it enables institutions to adopt a broader concept of learning and personal development, with more potential to recognise and value students' creativity than can be recognised within the boundaries of a study programme.

In this article I try to crystallise my thoughts and connect them to the thinking of others around four propositions which I believe have important consequences for higher education. My first proposition is that we all have unique creative capability and that being creative is integral to who we are and who we become. My second is that higher education should be concerned with students' developing as whole people, of which their creative development is a part, to enable them to realise more of their potential - to actualise themselves. My third proposition is that our everyday lives hold the promise and potential for our personal creativity. By this I mean the whole of our lives not just the part that is defined by study or work or any bounded space. My fourth proposition is that higher education could do much more to enable students to develop their creative potential and use their personal creativity if we adopted a lifewide concept of education. My belief is that if we act intelligently and creatively on these propositions we will ultimately create a more inventive, adaptive, resourceful and fulfilled society.

'If I had to define life in a word, it would be life is a creation' Claude Bernard<sup>5</sup>

# **Everyday - personal creativity**

If we believe in and act upon Claude Bernard's wise words we can make higher education a better place for nurturing students' creative development. We are the creators of our own lives and much of our creativity is invested in the process of being and becoming who we want to be. My central thesis is that higher education could and should play a more significant part in facilitating and supporting this fundamental process of becoming a person.

Vygotsky (2004:7) argued that 'any human act that gives rise to something new is.... a creative act, regardless of whether what was created is a physical object or some mental or emotional construct that lives within the person who created it and is known only to him.' If we accept this perspective then we are all more or less continuously creating.

Ruth Richards points out in the introduction to her book on 'Everyday Creativity', that our personal creativity which we utilise day to day, is an integral part of who we are, how we live our lives and how we create meaning and purpose in our lives. To deny its existence is to deny our very being. But how do we identify everyday creativity? Any creative act must satisfy two fundamental criteria (Barron 1969) namely: *originality* - something that is new like an idea, behaviour or something we have made, and *meaningfulness* - the act or result has meaning and is significant to us.

We humans are often 'everyday creative,' or we would not even be alive. To cope with changing environments, we improvise, we flexibly adapt, we try this and that. At times, we

<sup>&</sup>lt;sup>4</sup> Building on the earlier concept of a lifewide curriculum Jackson (2008)

<sup>&</sup>lt;sup>5</sup> Cited by Garisson F. H (1928: 997)

change the environment to suit us - whether we are making a living, raising a child, feeding the family, writing a report, or finding our way out of the woods when we are lost. Far from being a minor or specialised part of our lives, our everyday creativity - our originality of everyday life- is first of all, a survival capability. It is also a universal capability. But,.....our everyday creativity offers us more: It offers a dynamic process and a powerful way of living. When developed, it can open all of us to new depths, richness and presence.

Richards (2007:3)

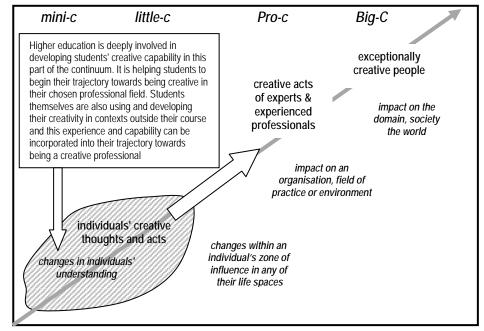
In his theory of creativity Rogers (1961:350) describes the everyday process of creativity as 'the emergence in action of a novel relational product, growing out of the uniqueness of the individual on the one hand, and the materials, events, people, or circumstances of his life on the other.' He placed the locus of this action in 'man's tendency to actualise himself, to become his potentialities' (*ibid*: 351).

By this [creativity] I mean the directional trend which is evident in all organic and human life - the urge to expand, extend, develop, mature - the tendency to express and activate all the capacities of the organism, or the self.....It is this tendency which is the primary motivation for creativity as the organism forms new relationships to the environment in its endeavour most fully to be itself.

Rogers (1961:351)

If we agree with Rogers (as I do) then we understand that a concern for students' creative development is fundamentally connected to the moral purpose of a higher education - to enable students to realise more of their potential: to actualise themselves to become their potentialities.

**Figure 1** Contribution of higher education to students' creative development using the Four-C model of creativity proposed by Kaufman and Beghetto (2009)



new /novel ideas and their implementation

significance and impact of a person's creativity

# Nature, scope and influence of a person's creativity

Kaufman and Beghetto (2009) proposed a four-category model of creativity to explain the nature, scope and influence of individuals' creativity (Figure 1). These authors refer to 'Big-C' creativity that brings about significant change in a domain; 'Pro-c' creativity associated with the creative acts of expert professionals - when people have mastered their field; 'little-c' creativity - the everyday creative acts of individuals who are not particularly expert in a situation and 'mini-c' the novel and personally meaningful interpretation of experiences, actions and events made by individuals. Central to the definition of mini-c creativity is the dynamic, interpretative process of constructing personal knowledge and understanding within a particular sociocultural context.

Both mini-c and little-c forms of creativity are relevant to higher education learning and curriculum designs, teaching and learning strategies could usefully encourage and facilitate these. One might speculate that participation in these forms of creativity are pre-requisite for Pro-c and Big-C creativity in later life: if we want creative professionals then we should be encouraging our students to be creative. It is however important to note that 'everyday creativity can extend from mini-c to little-c through Pro-c. It is only Big-C that remains *eminent* creativity (ibid:6) beyond the reach of most of us. From an educational perspective it might be reasoned that by encouraging and empowering students to use, develop and make claims for mini-c and little-c forms of creativity, we are better preparing them not only for using these forms in later life but for engaging in more expert-based forms of creativity that comes from sustained engagement with a particular domain or field of activity.

# Situations - the focus for personal creativity

Our personal creativity is manifest in the way we deal with or create situations. This process is neatly summarised by Eraut (2007, 2011) in the contexts of dealing with situations in the work place, but the basic process is relevant to any context. It follows the pattern of

- Assessing situations (sometimes briefly, sometimes involving a long process of investigation and enquiry) and continuing to monitor the situation;
- Deciding what, if any, action to take, both immediately and over a longer period (either on one's own or as a leader or member of a team); [In complex situations this stage also includes designing and planning the action];
- Pursuing an agreed course of action, preparing for and performing professional actions evaluating the effects of actions and the environment and adapting as and when necessary;
- *Metacognitive monitoring of oneself*, people needing attention and the general progress of the case, problem, project or situation; and sometimes also learning through reflection on the experience

According to Eraut (2007, 2011) these activities can take many different forms according to the speed and context and the types of experience and expertise being deployed. Although analytically distinct, they may be combined into an integrated performance that does not follow a simple sequence of assessment, decision and then action. There may be several assessments, decisions and actions within a single period of performance in dealing with the situation (Klein et al 1993).

Eraut (ibid: 4) developed a tool (Table 1) to explain the relationship between *time* and *mode of cognition* in dealing with situations dividing the time-continuum into three sections, Instant, Rapid and Deliberative. These terms attempt to describe how the time-scale is perceived by the performer, and should be interpreted differently according to the orientations of performers and the nature of their work.

In the domain of professional capability and expertise applied to the challenges and opportunities of work we are dealing with Pro-c creativity (Kaufman and Beghetto 2009). A concept that is consistent with the expertise acquisition model of creativity (Ericsson and Lehmann 1996) requiring prominent creators to have mastered their work, through immersing themselves in their role(s) for a considerable period of time.

Table 1 Interactions between time, mode of cognition and type of process (adapted from Eraut 2011:4). Nb the *intuitive* dimension of the deliberative domain (italicised) has been added for completeness and to reflect its relevance to the issue of personal creativity

Type of Process	Mode of Cognition		
	Instant/Reflex	Rapid/Intuitive	Deliberative/Analytic & Intuitive
Reading/ comprehending the situation	Pattern recognition	Rapid interpretation Communication on the spot	Prolonged diagnosis Review involving discussions and/or analysis New, often sudden insights
Decision-making	Instant response	Recognition- primed or intuitive responses	Deliberative analysis and/or discussion with others sometimes mediated by intuition
Overt activity	Routinised action	Routines punctuated by rapid decisions	Planned actions with periodic progress reviews sometimes mediated by intuition
Metacognitive	Situational Awareness	Implicit monitoring Short, reactive Reflections	Conscious monitoring of thought and activity. Reflective learning with deeper meaning making derived through creative insight.  Group evaluation

According to Eraut (2007, 2011) the *instant/reflex* column describes routinised behaviour that, at most, is semi-conscious. The *rapid/intuitive* column indicates greater awareness of what one is doing, and is often characterised by rapid decision-making within a period of continuous, semi-routinised action. Typically it involves recognition of situations by comparison with similar situations previously encountered; then responding to them with already learned procedures (Klein 1989, Eraut et al 1995). Creativity emerges when the situation requires an adaptive or newly invented response. The *deliberative / analytic* column is characterised by explicit thinking by individuals or groups, possibly accompanied by consultation with others. It involves the conscious use of prior knowledge and its application to new situations, sometimes in accustomed ways, sometimes in novel ways or in a more critical manner. The *intuitive dimension* of this domain is related to the sudden insights one gains after considerable deliberation, insights that may come about through making a connection and interpretation to something that is quite distant to the problem in hand. An individual's creativity emerges when the situation requires an adaptive or newly invented response.

The processes described by Eraut for dealing with situations in the work place are fundamentally processes of self-regulation (Schunk and Zimmerman 1998, Zimmerman 2000). Self-regulation can be represented as a continuous process involving forethought (planning and decision making) – performance – self-reflection on performance operating within a context specific environment that is structured by the learner to provide resources to enable them to achieve what it is they want to achieve. If we accept this general theoretical model of the way we engage with the world then we must also be able to relate our personal creativity to the processes involved. Figure 2 illustrates how our creativity might be related to the way we deal with or create situations.

Covey (2004) offers another meaningful perspective on this fundamental situational focus.

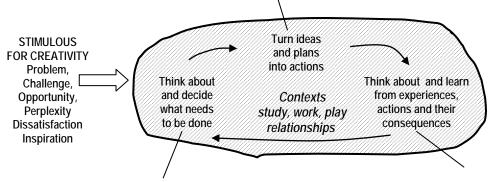
Between stimulus and response there is a space. In the space lies our freedom and power to choose our response. In those choices lie our growth and our happiness.

Covey (2004:4

**Figure 2** Ways in which personal creativity is involved in dealing with and creating situations that involve bringing new things into existence. Source Jackson (2010), based on the model of self-regulation (Zimmerman 2000)

#### ACT / PERFORM / MAKE AND MAKE HAPPEN

This is where creative acts are performed and where creative events and products are produced. Creative acts are domain dependent. The creative actions of a musician are different to those of a general practitioner, engineer or business entrepreneur. Creative acts are stimulated by a context which is often a complex challenging situation or problem within the domain. Mastery of domain knowledge and the skill to use the knowledge is an essential pre-requisite to creative performance. Selling ideas, helping others to see new possibilities, opportunities and solutions may be an important part of the creative process. Engaging and communicating with others during problem working may also require creativity - communication is an important focus for everyday creativity. Creative people are good at monitoring the effects of their actions and continually adjusting what they do to achieve desired effects/results.



#### THINK ABOUT AND DECIDE WHAT NEEDS TO BE DONE

This is where situations are assessed, ideas are born and decisions are made about how to approach and work with a particular situation. Ideas on how to tackle a situation may be born from rational or intuitive thought processes. The more analytical/rational brain analyses tasks, sets goals and develops strategies. The intuitive brain may provide an idea or insight to a way of thinking about a problem. The ability to generate ideas (generative thinking) and to critically evaluate ideas to distinguish those that are most useful and exciting is important. This thinking draws on memory of past experience and also imagination stimulated by things outside of own experiences.

What is planned is influenced by contexts, self-efficacy, expectation of immediate and longer term outcomes, levels of intrinsic interest and goal orientation (eg learning for assessment or mastery of a process or skill). For some people the opportunity to be creative is a major stimulus and source of energy and motivation to thinking and subsequent actions.

For some routine situations very little imagination/creativity is used but where new and challenging problems and situations are encountered imagination will be involved to generate new ideas, to look beyond the obvious, to identify possibilities and to see the world in different ways so that it can be explored and understood better.

#### LEARN FROM EXPERIENCE

This is where processes and products involving creativity are reviewed, evaluated and judged, cause and effects are attributed and where we decide whether or not we are satisfied with what was achieved. The process involves making sense of experiences and outcomes in order to gain deeper insights/learning (*metalearning*) which can be drawn upon in future situations.

It is necessary to combine reflective and intuitive thinking that builds meaning through synthesis, connecting thinking, processes and outcomes in ways that are meaningful to the actor and processing emotional responses, with more critical analytical ways of thinking through which objective judgements are made and cause and effects are attributed.

It is only after a creative process has been completed that a real sense of value/worth can be gained and the quality of newness, level of significance, inventiveness/re-inventiveness can be judged. The process of appreciation is aided by dialogue with others who were not part of the creative act – tutors and peers or perhaps professional practitioners who can bring a level of objectivity to the evaluation of utility and inventiveness. Developing consensual agreement on the hallmarks of creativity in the particular contexts in which it was used through such a dialogue is an important part of the process of evaluation and the way in which we develop deeper understandings and insights into the nature of creativity.

This *freedom to choose* space is rich in affordances. It represents the decision space at the heart of every situation we participate in – the fundamental building block of daily life. In this space where we have the freedom to choose what to do, we make decisions that are based on what we and others value, what we know and don't know, what we believe is right or wrong, what we think we can or can't do and how we feel about the different options we have.

Rogers (1961) places this process at the centre of being and becoming a person.

[when a] person is open to all of his experience, he has access to all of the available data in the situation, on which to base his behaviour. He has knowledge of his own feelings and impulses, which are often complex and contradictory. He is freely able to sense the social demands, from the relatively rigid social 'laws' to the desires of friends and family. He has access to his memories of similar situations, and the consequences of different behaviours in those situations. He has relatively accurate perception of this external situation in all of its complexity. He is better able to......consider, weigh and balance each stimulus, need and demand, and its relative weight and intensity. Out of this complex weighing and balancing he is able to discover that course of action that seems to come closer to satisfying all his needs in the situation, long-range as well as immediate needs.

Rogers (1961:118)

It seems reasonable to infer that our creativity must be integral to this complex decision making space. A process that involves combining and integrating imagining, generating, reconstructing and playing with ideas, and critically evaluating possibilities and the potential consequences of actions.

Rogers (1961: 353-55) identified three conditions<sup>6</sup> which he believed to be associated with an individual's preparedness to engage in constructive (positive) creative acts namely:

- 1 An openness to experience. This boils down to a lack of rigidity in the way experiences are perceived and permeability of boundaries in concepts, beliefs, perceptions and hypotheses. It means tolerance for ambiguity where ambiguity exists and the ability to receive and assimilate conflicting information without forcing closure upon the situation. It means balancing critical reasoning with a healthy imagination.
- 2 An internal locus of evaluation. Rogers (ibid:354) argues that this is perhaps the most important condition for creativity. It means that the value of the product or action for the creative person is established not by the praise or criticism of others but by him or herself. The question that really matters to a person who has chosen a creative pathway is, does what I have done express a part of me? If the person feels he/she has actualised the potentialities which hitherto have not existed and are now emerging into existence, then it is satisfying and creative and no outside evaluation can change this feeling or belief.
- 3 The ability to play with elements and concepts The ability to play with ideas, relationships, to juggle elements into improbable juxtapositions, shape wild hypotheses, express the ridiculous and translate from one form to another are uses of the imagination that enable the

<sup>&</sup>lt;sup>6</sup> The first two of these conditions also feature in Rogers' synthesis for *becoming a person* (Rogers 1961: 115-120) showing that he believed how central to 'being' an individual's creativity is. It might also be argued that his third condition for becoming a person. *trusting self* as 'a suitable instrument for discovering the most satisfying behaviour in each immediate situation (ibid. 118) is implicit in an individual's attempts to be creative.

creative seeing of life in a new and significant/meaningful way. In whatever relational context, out of the many possibilities there emerges new forms that the individual values and acts upon (*ibid 354-55*).

But in order to engage in the course of action we have 'invented' to deal with a new situation from the range of possibilities we have imagined and evaluated, we need both the *will* and *capability* to do it.

# The ways and means we accomplish what we value

Our creativity cannot be separated from the capabilities that enable us to invent, improvise and adapt in the situations we encounter and create for ourselves. Capability is the power or ability to do something or to perform a certain role. It is an important concept in education and human development; it refers to 'the various combinations of functionings (beings and doings) that [a] person can achieve'. It also reflects a 'person's freedom to lead one type of life or another ... to choose from possible livings' (Sen 1992:40). Our capability represents 'the *real opportunity* that we have to accomplish what we value' (ibid. 31). Capability is a complex phenomenon, according to (Eraut 2009:6) it embraces 'everything that a person ...... can think or do'. It is complex because it requires the integration and utilisation of different sorts of knowledge, practical and intellectual skill, dispositions and qualities in specific situations in order to accomplish something. It enables us to choose from a repertoire of responses and to adjust our response if we judge that it is necessary.

In utilising our capability in a particular situation we are increasing opportunities for learning: learning that is not just relevant for dealing with that situation but learning for potential future situations. Jean Piaget placed the creative act at the heart of learning, 'to understand is to invent' (Piaget 1972) while Runco (2007) relates this process of knowledge creation to a constructivist epistemology, the fundamental generative process that is at the heart of our everyday creativity.

Constructivist epistemology has much to say about creativity.... Its basic premise is that knowledge is created by the individual. Knowledge is literally a construction of understanding. Often the constructive process provides an original interpretation of experience. This process is a creative one, at least when the resulting interpretations are both original and effective.

Runco (2007:91)

Capability is demonstrated through both the action (what is done and how it is done) and the results (were actions appropriate, effective or inspiring). It is not judged through a single action over time but through performances in a range of contexts and situations. We develop our capabilities for particular contexts and some of these capabilities are generic and others are not since they rely on domain specific knowledge and cultures for their appropriateness and effectiveness. To illustrate what capability means we might turn to Greene (2004a) who describes '32 capabilities of highly effective people in any field' and distills these down to just eight general capabilities.

Highly effective people have eight general capabilities. The first four such capabilities are ways of using liberty they make for constructing, establishing, and founding enduring changes in lives and the world. They have ways, when encountering difference and otherness, of keeping what is new, difficult, and unknown or challenging from being absorbed and assimilated to their existing models and preferences. They have ways of

preserving the otherness of what they encounter. Second, they have ways of unearthing the most buried, subtle, intimate, and vital forces and things inside themselves and examining them for possible use or improvement. Third, they have ways of bringing order to their own selves and to the selves of those in groups around them. Fourth, they have ways of turning insights, ideas, experiences, and the like into impacts on society, actual changes in how things are arranged and done. The second four general effectiveness capabilities are ways of protecting novelty from erosion by large, traditional, already established powers of the world. Fifth, they have ways of doing things with style and verve rather than doing them perfunctorily. Sixth, they have ways of upping the performance of all dimensions of their selves, work, and lives, not just some or a few. Seventh, they have ways of influencing people, in many channels, modes, and means. Eighth, and last, they have ways of operating with new commonsenses, they borrow or invent, that make their automatic reactions up-to-date and future-looking.

(Greene 2004:5)

Greene's rich and insightful account of the capabilities of high-performing people who are particularly effective in their field provides a comprehensive, explicit and inspiring vision for human development. Several of these general capabilities make explicit reference to the creative acts of turning ideas into impacts, protecting novelty, bringing about change and inventing new common sense. But it is likely that people who are effective and successful in what they do are able to draw upon their creativity whenever they need or want to.

It is not an exaggeration to say that effective people excel in working with ideas in every context of their work and lives. They use, invent, apply, revise, fuse, improve and inspire ideas.

(Greene 2004a:5)

Through his research involving 150 highly creative people from 63 diverse stratas of society, Greene (2004b) identifies at least 60 personalised models of what being creative means. These models reflect what is in the minds of creative people when they create - their ways and means of bringing things into existence! This way of representing creativity as personally constructed perceptions of creative practice in the situations in which people have been or tried to be creative is the most authentic way of understanding what creativity means. However, it also means that there is no simple way of defining what creativity is because it is 'the emergence in action of a novel relational product, growing out of the uniqueness of the individual on the one hand, and the materials, events, people, or circumstances of his life on the other' (Rogers1961:350).

Greene's research on the capabilities of highly effective people (Greene 2004) focuses on the high achievers in their field, and it might be argued that the capability characteristics he has developed for exceptional people (who have significant impact and influence on the societies they inhabit) cannot be applied to individuals with more modest achievements. However, Greene's powerful way of framing capability – 'they have ways' – points to the repertoire of strategies, skills, ways of thinking and behaving that people possess and can adapt and deploy in new situations in order to achieve the things that they (or others) value. I believe that these repertoires can be recognised in the lives of some of the students who I have been privileged to know (see for example the story told by a final year undergraduate student in Jackson 2011b).

Revised August 27th 2011

The important lesson from Greene's work is the need for higher education educators to encourage learners, through well designed thinking tools and facilitated conversation, to reflect up on and develop their own understandings of how they are creative when they participate in their everyday experiences. Such self-knowledge is likely to be valuable to individuals in all sorts of ways.

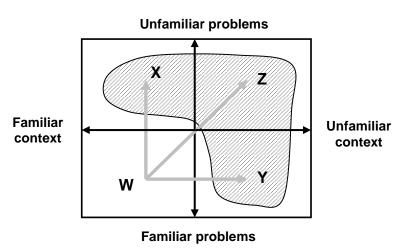
Seeing personal creativity in the ways outlined above, has important implications for education that purports to help and enable students to realise more of their potential - to actualise themselves, to become their potentialities. If we want to embrace all the contexts in which students are creative in their everyday lives then we need a concept of curriculum that embraces all these contexts and a concept of education that values students' learning and development in these different contexts. My proposition to achieve this goal is that higher education should adopt a lifewide concept of education (Jackson 2011a, b).

### The importance of context

Before we look at the educational consequences of these ways of thinking about creativity it's worth considering one more set of perspectives. The contexts within which we deal with or create situations can be categorised according to whether they are within a familiar or unfamiliar context and whether the problem (challenge or opportunity) is familiar or unfamiliar. Stevenson (1998) developed a simple 2x2 matrix to explain how we utilise our capability (including our creativity) within this conceptual framework.

Much of our life is spent in familiar situations where we don't have to pay much attention to what we are doing and we can reproduce our responses without really thinking deeply about our actions (position W, Figure 3). Stephenson considered this space to be one in which we practised dependent capability and he related this to traditional teaching approaches adopted in higher education. We can, if we choose, adopt and perform the routines we have learnt in these situations with little or no need to invent.

**Figure 3** Relationship between context, capability and creativity (adapted from Stephenson 1998:5, Jackson 2011d). Letters refer to scenarios described below. The shaded area represents situations that have the greatest potential for personal creativity because we have to invent/adapt/improvise in them.



Position W can apply to the work-place, the home, community activities or artistic pursuits. Good performance in position W may require technical skills and knowledge of the highest order, or at the simplest level. [In higher education] We give students information about the context; the more complex the context, the more information we give them. We give them information about the kinds of problems they will meet, and details of the solutions which have been found to be effective. We might even give them practice in the implementation of the solutions and evaluation of their effectiveness. We seek to develop student capability in position W by passing on other people's experience, knowledge and solutions ... the resultant capability is essentially a dependent capability.

(Stephenson, 1998:4)

Our personal creativity in this domain is not focused on mastering new contexts and difficult problems, rather we can choose to use our creativity to transform the ordinary into something which has extraordinary meaning for ourselves. Indeed our capacity to see, value and utilise the ordinary in new or unusual ways is a feature of our creativity in all domains of this conceptual territory.

Moving to the other domains in Figure 3 we can appreciate that if we are confronted with a problem, challenge or opportunity, or we enter a context that is unfamiliar we have to develop new contextual understandings and / or invent and try out new practices and ways of behaving. Through this process we are creating new understandings and new ways of performing or producing. These are the situations in which we develop (invent) new capability.

# Seeing the possibilities in a situation

In their book 'The Art of Possibility', Zander and Zander (2000) highlight the importance, in living a fulfilled and successful life, of seeing *life as an invention* and approaching situations positively with a view to seeing and sensing the possibilities and opportunities they hold. Through stories, they outline a number of practices that can help us shift our perspectives in ways that have profound effects on our ability to live an inventive/creative and fullfilled life. It is these sorts of ways of thinking and behaving that highly effective (and creative) people have internalised in the ways and means they use to accomplish what they value.

To illustrate the wisdom in this proposition I refer you to a memorable story told by Dewiit Jones, one of the world's leading nature photographer (YouTube <a href="http://www.youtube.com/watch?v=1sPYApmrJ48&feature=player\_embedded#at=18">http://www.youtube.com/watch?v=1sPYApmrJ48&feature=player\_embedded#at=18</a>). In the video clip he illuminates his own creative process through which he combines and blends his experience and expertise as a photographer with his passion to find and create situations with the greatest potential to discover the creative solutions he recognises as they emerge. It is this passion, coupled to the development of relevant capability that will enable and empower learners to be inventive in whatever contexts and situations they choose to inhabit.

We can use the situational framework developed by Stephenson (Figure 3) with these ways of thinking about the possibilities and potentials in new situations, to encourage students to think about the situations they encounter and create in their life and invite them to reflect on whether they are restricting themselves to contexts and challenges that are familiar and comfortable, or are they involving themselves in unfamiliar problems and contexts that will require them to engage their creativity, be resourceful and invent new forms of independent capability. We might also use this framework in our teaching to help us reflect on the creative potential of the situations we design and implement within our courses. In the next part of this

Revised August 27th 2011

article I consider the potential that lies in a new type of educational design for improving the way we encourage and support students' creative development: a design that embraces the ideas about creativity outlined above.

'the whole of life is learning therefore education can have no ending.'

Eduard Lindeman (1926)

# A lifewide concept of education

So what are the possibilities of these ideas for the way we might shape higher education so that it provides more opportunity for students' creative development - adding more value to the potential outcomes from what is now becoming a very expensive experience for learners.

In my examination of the 'wicked problem' of creativity in higher education (Jackson 2008) I suggested that we could do much to honour and encourage students' creative development by adopting a lifewide concept of curriculum that values learning and personal development gained in all the spaces and places in a student's life while they are studying. A lifewide curriculum, it was argued, afforded the best opportunity for students' creative development, since the intrinsic motivations that drive creativity are more likely to be present in the spaces that individuals choose to inhabit and to which they devote time, attention and energy.

A lifewide curriculum honours informal/accidental/by-product learning in learner determined situations as well as formal learning in teacher determined situations. It embraces learning in the physical/emotional social spaces that characterise the work/practice environment and it honours formal and informal learning in all other environments that learners chose to be in because of their interests passions and needs. Because of this a lifewide curriculum is likely to provide a better framework for encouraging, supporting, recognising and valuing learners' creativity and self-expression, than a curriculum that is solely based on academic or academic and professional practice experiences (Jackson 2008:24).

A lifewide curriculum could facilitate students' creative development in three ways in the forms that are necessary to be successful and innovative in the academic disciplinary or interdisciplinary domain, in any professional/work domain and in the domains of activity that learners chose for themselves in their lives outside formal education. This domain is particularly rich in affordances and possibility spaces and it is this domain that is currently most difficult to honour and recognise students' learning and creative enterprise.

#### The lifelong-lifewide journey

Lifelong learning is a well-established concept in educational policy. It represents all the learning and development we gain as we progress along the pathway of our life. Lifewideness adds important detail to this broad pattern of human development by recognising that most people, no matter what their age or circumstances, simultaneously inhabit a number of different spaces - like work or education, running a home, being a member of a family, being involved in a club or society, travelling and taking holidays and looking after their own wellbeing mentally, physically and spiritually.

We live out our lives in these different spaces and we have the freedom to choose which spaces we want to occupy and how we want to occupy them. In these spaces we make decisions about what to be involved in, we meet and interact with different people, have different sorts of relationships, adopt different roles and identities, and think, behave and communicate in different ways. In these different spaces we encounter different sorts of challenges and problems, seize, create or miss opportunities, and aspire to live and achieve

Revised August 27th 2011

our ambitions. It is in these spaces that we create the meaning that is our lives (Jackson 2011a & b).

The significance of a lifewide concept of education for personal creativity is that it enables individual students to feel that even if they believe that there is little opportunity for them to be creative in their academic course they can gain recognition for creativity that is being expressed in other parts of their lives. It also encourages students to see that creativity can be manifested in different ways in different parts of their lives.

One way of raising learner and teacher awareness of the potential for creative development in an individual's life is to encourage them to create a life space map. A life spaces map (Figure 4) reveals the life we are choosing to lead. It shows spaces and places we inhabit, the things we do in those spaces and places, the significant relationships we have and value, and the ways in which we maintain our physical, emotional and spiritual well-being.

**Family Developing new businesses** Mv wife, children and Creating and managing a portfolio of grandson and maintaining work linked to educational relationships with the wider consultancy and use of media to family and friends capture and make accessible ideas including production of animated films. I have set up two companies one a Community Interest Company to House and garden promote and support the further Current 'projects' include **Hobbies** development of lifewide education converting a garage into an Playing office and trying to reduce drums in the population of rabbits in Writing a band: my garden! Plus housework, Writing, editing crafting a book. doing and cooking!!!! Writing this article gigs Responding Keeping fit to the Gardening, swimming, exercise Occasional planned experiences unexpected In the last few months I have visited family in Dubai & Australia and been on holiday with the family to Granada in Spain all of which offered me new experiences

Figure 4 My life spaces map (May-June 2011)

Being and becoming me

Every space we inhabit has its own routines, challenges and opportunities, each holds the potential for us to exercise our will, harness what we know and can do, develop new knowledge, be creative and resourceful, behave ethically and use and integrate many of our capabilities. My claim is that in every life space there are opportunities for learning, relationship building and the development of capability that ultimately can be transferred and utilised in other life spaces. Our life spaces can be related to the Stephenson's conceptual framework for evaluating situations (Figure 3). Many of our spaces will contain situations that are familiar. In these spaces though the contexts and challenges may be known we can utilise our creativity in what we choose to do and how we do it, but opportunity may be limited simply because we tend to replicate what we have done in the past. But we may also choose to inhabit

some of our spaces as we live our life will occupy unfamiliar territory and here we will need to utilise our creativity in order to invent, adapt and improvise.

To illustrate the concept of a life spaces map, I include my own in Figure 4. It summarises the life I am choosing to lead at the time of writing this piece - how I am trying to realise my own potentialities and within this the opportunities I have for expressing myself in ways that I value as being meaningful and creative. Having just 'retired' I recognise I am in unfamiliar territory and making the transition to a different sort of life. While I have my well established spaces with my family, friends and home, I no longer have my job to consume so much of my time everyday and I am, with others, inventing and adapting to a new way of life through a business and trying to promote what I value (lifewide education) by forming a community interest company. I'm finishing a book and writing this piece (like most academics writing is a major creative outlet) and I play in what on a good day might pass as a band (at the back playing drums! <a href="http://freeworlders.pbworks.com/">http://freeworlders.pbworks.com/</a>). I know I am privileged to have so much opportunity to express my creativity.

# A holistic model of learning within which creativity can be recognised

The value of a lifewide concept of higher education lies in its capacity to embrace and celebrate a richer and more holistic view of learning and personal development. A lifewide concept of education values and recognises learners' attempts to develop and use all their senses and embraces the full range of physical, intellectual, spiritual and emotional experience. Beard and Jackson (2011) argue that a lifewide concept of education should be supported by a comprehensive model of learning. They present a useful framework to help us understand how our whole being is involved in learning. In this representation of learning there are three components to a learner's world – his inner world, his outer world and the sensory interface between these worlds. Learning is represented in six dimensions: *sensing, belonging, doing, feeling, thinking* and *being/becoming*. A creative act may (is likely to) involve all of these dimensions and by adopting such a comprehensive model of learning this can be recognised.

# An educational design to promote lifewide learning and personal creativity

When designing educational experiences teachers usually begin with *their* purposes and the outcomes *they* want to promote, and then *they* think about the content, and process, create and organise resources to support learning. *They* decide what counts as learning, and finally *they* evaluate the standards and quality of learning, as demonstrated through one or more assessment methods and tools that *they* have designed guided by criteria *they* create to assist them in making judgements. In such a curriculum the scope for personal creativity is always limited by the teacher's requirements for conformance and standardisation and the teacher's desire for specific learning outcomes. This is the way we generally do things in higher education.

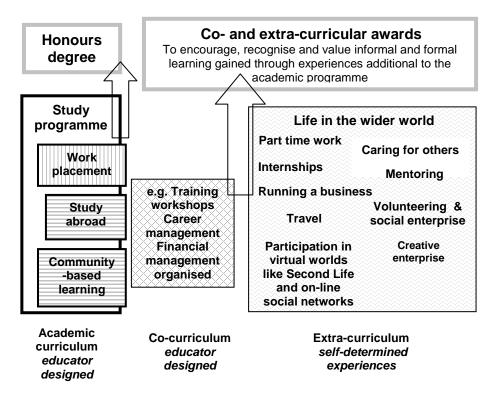
But what if we were to take heed of Rogers' conditions and dare to suggest that we might begin our educational designs from the perspective of a learner's life, and see the learner as the designer and implementer of their own integrated and meaningful life experience? An experience that incorporates formal education as one component of a much richer set of experiences that embrace all the forms of learning and achievement that are necessary to sustain a meaningful life. A personal curriculum that provides ample scope for acts of personal creativity.

The concrete expression of this idea translates into a curriculum map (Figure 5) containing three different domains, all of which have the potential to be integrated by a learner into their personalised higher education experience and be recognised and valued by the institution.

A lifewide curriculum comprises:

- academic curriculum, which may by design integrate real-world work or communitybased experiences
- 2. co-curriculum: educator-designed experiences that may or may not be credit-bearing and for which learners may or may not receive formal recognition
- 3. extra-curricular experiences that are determined by the learners themselves and constitute all the spaces that lie outside of 1 and 2, above.

Figure 5 Lifewide curriculum map. Source: Jackson (2008, 2010, 2011d)



Such a curriculum can be created by either designing lifewide dimension into an academic programme (Cowan 2011) or by adding an Award Framework to validate the learning and personal development gained from experiences that are not included in the credit-bearing programme structure (Jackson, et al. 2011). Betts and Jackson (2011) have shown that over 60 higher education institutions in the UK have implemented or are implementing schemes to recognise learning, personal development and achievements gained outside the academic curriculum and that this is an emergent phenomenon.

#### Nurturing students' creative development through the academic curriculum

The academic curriculum – is focused on learning about a subject with heavy reliance on explicit knowledge mediated by teachers whose embodied knowledge and epistemology of

practice are appropriate to 'being an academic in a particular disciplinary field'. Students' experiences in the academic curriculum tend towards mastering theory-rich knowledge through transmission, self-study and sometimes small group study. The emphasis in teaching is on instruction – the transmission of existing explicit knowledge mediated by the teacher. Creative self-expression is heavily constrained by the norms of the academic discipline, creativity is valued in disciplines (see below) and the emphasis here should be on facilitating discussion within discipline communities to reveal the forms of creativity that are valued and the educational designs and forms of teaching, learning environments and assessment that promote such creativity. In general a more process-oriented curriculum that promotes enquiry and problem or project-oriented learning, moves away from a knowledge transmission model towards a discovery model of learning that holds more potential for creative development and creative self-expression. These approaches to learning become even more powerful vehicles for personal and group creativity when they are combined with techniques that encourage design thinking (Jackson and Buining 2010). John Cowan (2006, 2011) offers two *possible* pedagogic answers to the challenge of teaching for creative development.

Through surveys of teachers in a range of disciplines Jackson and Shaw (2006) identified a number of personal qualities, dispositions and capabilities which appear to be associated with creativity regardless of disciplinary, pedagogic or problem working context.

**Table 1** Qualities, dispositions and capabilities which academics and practitioners working in particular disciplinary fields associate with being creative (Jackson and Shaw 2006)

**Being imaginative** – generating new ideas, thinking out of the boxes we normally inhabit, looking beyond the obvious, seeing the world in different ways so that it can be explored and understood better.

## Being original. This embodies:

- the quality of newness for example: inventing and producing new things or doing things no one has done before;
- being *inventive with someone else's ideas or products* recreation, reconstruction, recontextualization, redefinition, adapting things that have been done before, doing things that have been done before but differently; in performance this is improvisation;
- and, the idea of significance there are different levels and notions of significance but utility and value are integral to the idea.

Having an enquiring disposition, being curious – willing to explore, experiment and take risks i.e. the attitude and motivation to engage in exploration and the ability to search purposefully in appropriate ways in order to find and discover. It is necessary to work in an uncertain world and often requires people to move from the known to the unknown.

**Being resourceful** – using your knowledge, capability, relationships, powers to persuade and influence, and physical resources to overcome whatever challenge or problems are encountered and to exploit opportunities as they arise.

**Being able to combine, connect, synthesise** complex and incomplete data/situations/ideas/ contexts in order to see the world freshly/differently to understand it better and solve problems.

**Being able to think critically and analytically** – its not enough to generate lots of ideas we also have to be able to evaluate them in order to distinguish useful ideas from those that are not so useful and make good decisions about how to act.

**Being able to represent ideas and communicate them to others** – the capacity to sell ideas and show people possibilities, opportunities and solutions in ways that make sense to them and capture their imagination.

I have invited audiences of higher education teachers on numerous occasions<sup>7</sup> to consider whether these attributes are relevant to being creative in their disciplinary fields and it is clear that the vast majority of teachers believe this to be the case. So one simple response to the question how can we enhance opportunity for students to develop and use their creativity is simply to design and facilitate educational experiences that encourage students to utilise these aspects of their capability.

But encouraging students' creative development within the 'domain of academic learning' is only only of the spaces students' inhabit while they are studying. My contention is that we can do much more to encourage and support students' creative development by adopting a wider perspective on the meaning of curriculum: one that also incorporates the Co- and Extra-curricula dimensions of the student experience, one that encourages the integration of learning and personal development across these domains.

# Propositions for an imaginative lifewide curriculum

Jackson (2010, 2011d) I set out a series of propositions (reproduced below) for an imaginative lifewide curriculum that would help learners develop the multiple forms of knowing, skills, capability, qualities and dispositions necessary for being successful, effective and creatively fulfilled in a complex, uncertain, changing and sometimes disruptive world. These propositions take account of all the potential domains of experience embraced in Figure 2.

An imaginative lifewide curriculum:

- gives learners the freedom and empowers them to make choices so that they can find deeply satisfying and personally challenging situations that inspire, engage and develop them
- 2. enables learners to appreciate the significance of being able to deal with situations and see situations as the focus for their personal and social development
- 3. prepares learners for and gives them experiences of adventuring in uncertain and unfamiliar situations where the contexts and challenges are not known, accepting the risks involved
- 4. supports learners when they participate in situations that require them to be resilient and enables them to appreciate their own transformation.
- 5. enables learners to experience, feel and appreciate themselves as knower, maker, player, narrator, enquirer, creator and integrator of all that they know and can do, and enables them to think and act in complex situations
- 6. encourages learners to be creative, enterprising and resourceful in order to accomplish the things that they and others value
- 7. enables learners to develop and practise the repertoire of communication and literacy skills they need to be effective in a modern, culturally diverse and pluralistic world
- 8. enables learners to develop relationships that facilitate collaboration, learning and personal development
- 9. encourages learners to behave ethically and with social responsibility
- 10. encourages and enables learners to be wilful, self-directed, self-regulating, self-aware and reflexive so that they develop a keen sense of themselves as designers/authors and developers of their own lives appreciating their learning and developmental needs as they emerge.

One thing is clear, to address the 'wicked problem' alluded to at the start of this article, we have to think differently about what a higher education means. There are no simple solutions

Revised August 27th 2011

18

<sup>&</sup>lt;sup>7</sup> including the audience at the Salford conference

to what is a highly complex challenge but perhaps a lifewide approach to education which focuses more attention on an individual's place in and responsibility and value to our society, offers more scope for the development of capability and responsibility than approaches that are centred primarily on disciplinary study. And extending beyond higher education, perhaps an educational experience formed around the sorts of principles outlined above would extend our capability as a society to enable our students to become the people they need to become in order to create the society they and we aspire to.

#### **Acknowledgements**

#### References

- Barron, F. (1969) *Creative person and creative process.* New York: Holt, Rinehart and Winston.
- Beard, C. and Jackson, N.J. (2011) A holistic model for learning and development, in N.J. Jackson (ed) *Learning for a Complex World: A lifewide concept of learning, education and personal development.* Authorhouse.
- Betts, C. and Jackson, N.J. (2011) Lifewide Student Development Awards: an emergent phenomenon in UK higher education, in N.J. Jackson (ed) *Learning for a Complex World: A lifewide concept of learning, education and personal development*. Authorhouse
- Boisot, M. H. (1998) Knowledge Assets: Securing Competitive Advantage in the Information Economy, Oxford University Press.
- Covey, S. (2004) *The 8th Habit: from Effectiveness to Greatness*, London and New York: Simon and Schulster.
- Cowan, J. (2006) How should I assess creativity, in in N.J. Jackson et al (eds) *Developing Creativity in Higher Education: an imaginative curriculum*, London and New York: Routledge 156-172.
- Cowan, J. (2011) Freedom to learn: a radically revised pedagogy to facilitate lifewide learning in the academic curriculum. in N.J. Jackson (ed) *Learning for a Complex World: A lifewide concept of learning, education and personal development.* Authorhouse
- Eraut, M. (2007) Learning from Other People in the Workplace, *Oxford Review of Education*, 33 (4), 403-422
- Eraut, M. (2009) How Professionals Learn through Work. In N. Jackson (ed.) *Learning to be Professional through a Higher Education*. Online at http://learningtobeprofessional.pbworks.com/How-professionals-learn-through-work
- (accessed 20/05/11).

  Eraut, M. (2011) Improving the Quality of Work Placements. in N.J. Jackson (ed) Learning to be
- Professional through a Higher Education. Available at:
- Ericsson, K.A. and Lehmann, A.C. (1996) Expert and Exceptional Performance: Evidence of adaptation to task constraints. *Annual Review of Psychology* Vol. 47: 273-305
- Garisson, F. H. (1928) Medical proverbs, aphorisms and epigrams *Bulletin of the New York Academy of Medicine* IV, No10 979-1005.

Revised August 27th 2011

- Greene, T. R. (2004a) 32 Capabilities of highly effective people in any field. Available on-line at: http://www.scribd.com/doc/2162334/32-Capabilities-of-Highly-Effective-Persons
- Greene, R. T. (2004b) 60 Models of Creativity for studying how particular repertoires of such models in creators affect their creativity. Available on-line http://www.scribd.com/doc/2162318/A-Model-of-60-Models-of-Creativity?ga\_related\_doc=1
- Jackson, N. J. (2008) *Tackling the wicked problem of creativity in higher education*. Background paper for a presentation at the ARC Centre for the Creative Industries and Innovation, International Conference Brisbane June 2008 Creating Value: Between Commerce and Commons Available on-line
  - http://imaginativecurriculumnetwork.pbworks.com
- Jackson, N. J. (2010) *Developing Creativity through Lifewide Education*. Online at http://imaginativecurriculumnetwork.pbworks.com/ (accessed 01/05/11).
- N. J. Jackson (ed) (2011a) Learning for a Complex World: A lifewide concept of learning, education and personal development. Authorhouse.
- Jackson, N.J. (2011b) The lifelong and lifewide dimensions of living, learning and developing, in N. J. Jackson (ed) *Learning for a Complex World: A lifewide concept of learning, education and personal development.* Authorhouse.
- Jackson, N.J. (2011c) Developing capability through lifewide education, in N. J. Jackson (ed) Learning for a Complex World: A lifewide concept of learning, education and personal development. Authorhouse
- Jackson, N.J. (2011d) An imaginative lifewide curriculum, in N. J. Jackson (ed) *Learning* for a Complex World: A lifewide concept of learning, education and personal development. Authorhouse.
- Jackson, N.J., Betts, C. and Willis, J. (2011) Surrey Lifewide Learning Award: a learning partnership to support lifewide learning, in N.J. Jackson (ed) *Learning for a Complex World:* A lifewide concept of learning, education and personal development. Authorhouse
- Jackson, N. J. and Buining F. (2010) Enriching Problem-based Learning through Design Thinking. In Barrett, T. and Moore, S. (eds) (2010) *New approaches to problem-based learning: revitalising your practice in higher education* London: Routledge
- Jackson, N.J. and Shaw, M. (2006) Developing subject perspectives on creativity in higher education, in N.J. Jackson et al (eds) *Developing Creativity in Higher Education: an imaginative curriculum,* London and New York: Routledge 89-108
- Kaufman, J.C., and Beghetto, R.A. (2009) Beyond Big and Little: The Four C Model of Creativity. *Review of General Psychology* 13, 1, 1-12.
- Klein, G.A. Orasanu J, Calderwood R & Zsambok CE (Eds) (1993) *Decision-Making in Action, Models & Methods*, Norwood, NJL: Ablex
- Lindman, E. C. (1926) *The Meaning of Adult Education* New York: New Republic. Republished in a new edition in 1989 by The Oklahoma Research Centre for Continuing Professional and Higher Education.
- Piaget, J. (1972) To Understand Is To Invent. New York: The Viking Press, Inc.
- Richards, R., (2007) Introduction, in R. Richards (ed) *Everyday Creativity and New Views of Human Nature*. Washington: American Psychological Association. 1-22.
- Rittel, H. and Webber, M. (1973) Dilemmas in a General Theory of Planning, *Policy Sciences*, 4. Amsterdam: Elsevier Scientific Publishing. pp. 155–9.
- Rogers, C.R., (1961) On becoming a person. Boston: Houghton Mifflin
- Runco, M. (2007) To understand is to create: an epistemological perspective on human nature and personal creativity, in R. Richards (ed) *Everyday Creativity and New Views of Human Nature*. Washington: American Psychological Association. 91-107.
- Schunk, D. H. and Zimmerman, B. J. (1998) Self-regulated learning: from teaching to self-reflective practice. New York: Guilford Press.

- Sen, A. (1992) *Inequality Re-examined.* New York, Cambridge, MA: Russell Sage Foundation, Harvard University Press.
- Stephenson, J. (1998) The Concept of Capability and Its Importance in Higher Education. In J. Stephenson and M. Yorke (eds) *Capability and Quality in Higher Education*, London: Kogan Page.
- Vygotsky, L.S. (2004) Imagination and creativity in childhood. (M.E. Sharpe, Inc., Trans.). Journal of Russian and East European Psychology, 42, 7-97 (original work published in 1967).
- Zander, R.S. and Zander, B. (2000) *The Art of Possibility: Transforming Professional and Personal Life.* MA: Harvard Business Press
- Zimmerman, B. (2000) Self-regulatory cycles of learning. In G. A. Straka (ed) *Conceptions of self-directed learning, theoretical and conceptual considerations*. New York, Waxman 221-