A Consideration of the Relationship Between Creativity and Approaches to Learning in Art and Design

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Abstract

Creative intelligence is relevant to all aspects of the school curriculum, yet it is through art and design that pupils may come to experience the significance of creativity as a means of exploring innovative and original ideas which offer credence to the individual and affect approaches to learning. This article analyses creativity and the creative process and addresses the links between creativity and intelligence by examining the implications such factors may hold for the teacher when developing approaches to learning in art and design. It focuses in particular on the use of sketchbooks within the context of a number of Art and Design GCSE courses and explores how students have been provided with opportunities to develop creative responses to set tasks. In addition, it sets out to challenge the notion that the requirements of GCSE assessment criteria inevitably restrict creativity and lead to non-creative formulaic practice.
Introduction
Creativity and the significant role it should play within our system of education is currently a high profile issue. A variety of initiatives including Creative Partnerships have been set up by the government to support schools in identifying where, in the curriculum, creativity may be developed. The potential impact on pupils is clear; creativity ‘prepares pupils for life’ and ‘improves esteem, motivation and achievement’ [1]. Within art and design, creativity is fundamental, yet teachers work within the imposed frameworks of the National Curriculum at Key Stage 3 and GCSE, AS and A2 course requirements at Key Stages 4 and 5. This article explores how the use of sketchbooks within a GCSE course may support pupils in the development of creative responses with particular focus on the ‘incubation stage’ [2] of the creative process.

The school community is a rich and varied body determined by the individuality of its pupils. As individuals, pupils have different forms of intelligence. A key to successful learning faced by teachers is the recognition of multiple intelligence and how this may be addressed through the planning and subsequent delivery of appropriate work. The inherent flexibility of learning offered by art and design can establish a positive relationship between intelligence and creativity. Creative challenges, both in terms of teaching strategies employed and opportunities presented for pupils to develop creative responses, characterise the significance of art and design in establishing a vital and effective learning environment.

Howard Gardner’s theory of multiple intelligence and subsequent research establishes a context for different fields of intelligent behaviour [3]. Gardner’s proposition that intelligence is not a single entity but a collection of eight different intelligences clarifies the experiences of teachers who recognise that pupils excel in some areas of the curriculum but struggle in others. According to Gardner’s theory, a poet has a different form of intelligence to a dancer therefore the form of intelligence depends upon the domain in which the individual excels. Gardner researched the lives and works of seven creative individuals, each from different fields of expertise whom he suggests were arguably the most remarkable creators of their era. These are: Sigmund Freud (intrapersonal), Albert Einstein (logical-mathematical), Pablo Picasso (spatial), Igor Stravinsky (musical), T. S. Eliot (linguistic), Martha Graham (bodily-kinaesthetic) and Mohandas Ghandi (interpersonal). With the exception of Picasso, who demonstrated remarkable drawing ability as a young child, research shows that none of the individuals demonstrated characteristics associated with the classic child prodigy [4]. However, a particularly fascinating point is that each individual displayed significant cognitive strengths within their eventual field of expertise or domain yet they worked round intellectual weaknesses that were equally profound. What Feldman [5] found to be striking was the rapid progress each individual made once they had become committed to their chosen domain.

The moment of commitment varied according to the individual but in many cases it would be catalysed by a significant time or event.

This notion of a critical moment when the young mind is focused and organised toward a known purpose was first used by Feldman to refer to an integration of basic cognitive structures; it has since become broadened to include sudden attachment to a domain, along with the motivation and sense of purpose that comes from knowing what one wants to do in life [6].

To analyse creativity and the creative process a primary concern is surely to acknowledge our individual state. Arieti offers an interesting perspective by suggesting that the creative process goes beyond the usual means of recognising our environment and individuality.

People like B. F. Skinner have characterised man as being moulded, conditioned, programmed by the environment in rigid, almost inescapable ways.
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Opposite, left to right:
- Figure 1
- Figure 2
- Figure 3
- Figure 4

This page left to right:
- Figure 5
- Figure 6
- Figure 7
- Figure 8
Skinner should be appreciated for having shown the extent to which man can be affected in this manner; but I think that, contrary to Skinner’s position, we must stress man’s ability to escape this fate. Creativity is one of the major means by which the human being liberates himself from the fetters not only of his conditioned responses, but also of his usual choices [7].

This liberation offers countless opportunities; however, Arieti voices caution reminding us that creativity is not black and white; it is not simply about originality and unlimited freedom. Restrictions are necessary if the originality developed by the individual is to be taken seriously; while it uses methods other than those of ordinary thinking, it must not be in disagreement with ordinary thinking—or rather, it must be something that, sooner or later, ordinary thinking will understand, accept and appreciate. Otherwise the result will be bizarre, not creative [8].

The National Advisory Committee on Creative and Cultural Education further substantiate the point but refer in this context to imaginative activity; ‘The outcome of imaginative activity can only be called creative if it is of value in relation to the task in hand. Value here is a judgement of some property of the outcome related to the purpose’ [9].

Common perceptions regarding creativity include giving a child a blank sheet of paper with the expectation that at whatever level they function regarding artistic prowess, some form of creative response will be the outcome. Whilst freedom to take risks and experiment is an essential aspect of creativity, so is the development of skills, knowledge and understanding [10]. Arieti’s statement serves to highlight that a fundamental aspect of the creative process is self-imposed discipline. This is not a discipline that follows a preordained school of thought but a structure within which one can experience the freedom to be truly creative. Policastro & Gardner [11] define a creative individual as someone whose work has a significant impact on the domain in which they specialise and that creative works significantly influence future work within the domain they were realised. Without a structure supported with associated skills, knowledge and understanding, I suggest that such influence would not take place. This insight offers important implications for classroom teaching.

Outside the classroom, Csikszentmihalyi [12] recognises the impact of family circumstances with specific reference to creative individuals. He highlights the importance of the environment within which the individual is born where there should be enough surplus energy to encourage the development of curiosity and interest for its own sake. Within the confines of too much deprivation innovative thinking does not seem to evolve. The home community and parental involvement provide the opportunity for absorbing non-academic knowledge and informal learning. Whilst the majority of students who attend school are exposed to the varied learning opportunities offered by the curriculum, there should be equal opportunity in their overall experience including consideration made of the student’s home circumstance.

At its inception the government initiative Creative Partnerships highlighted this fact by targeting schools in areas of social deprivation [13].

To analyse the intellectual process that leads to creative outcomes, key psychologists have broken the concept up into stages. Lytton [14] states that as far back as 1926 Graham Wallas believed that the creative process was made up of four stages:

- Preparation: the stage when the creative individual prepares. They adopt freedom of thought by searching, collecting, listening to suggestions.
- Incubation: the period of time (which varies according to the individual) between preparation and incubation. During incubation the collected material is elaborated and organised within the creative individual’s mind. Importantly, the individual will not consciously be thinking about the problem.
**Illumination**: the point at which the individual realises the solution. This is achieved through clear insight, intuition or sustained effort.

**Verification**: the stage of acceptance when the validity of the concept is evaluated and the ideas finalised.

This division has since been contested, ‘but it does alert us to the common pattern of focus, withdrawal and then breakthrough and to the key point that creativity is a process, not an event’ [15]. As a process I suggest that the division stated by Wallas continues to maintain particular relevance when articulating creative responses in art and design.

How, then, do the stages of creative process manifest themselves? The painter Howard Hodgkin is a fascinating example within this context. From his initial idea for a painting, Hodgkin undertakes a period of incubation and illumination which interlock and overlap until the moment of verification is reached. This painting tends to evolve over years rather than months. A further illustration of individual experience during the creative process comes from the writer Bertrand Russell. Rather than complete his creation through force of will, Russell realised that this took fruitless effort. Better to allow the more organic process of subconscious maturing (incubation) to act as a catalyst in achieving the moment of illumination. In the school setting the sketchbook offers a concrete focus for the incubation stage.

Sternberg and O’Hara [16] propose that creativity cannot be seen in isolation, therefore analysis of the relationship between intelligence and creativity offers five interpretations. Although psychologists have not reached a consensus in this regard, the conventional view is that creativity and intelligence are overlapping sets. When Gardner analysed the lives of the highly creative individuals mentioned earlier, he found that creativity worked within their realm of intelligence to generate new and original ideas.

Further work by Sternberg, Ferrari, Clinkenbeard and Grigorenko [17] found that students taught in a way that matched their abilities (particularly in terms of creative students) achieved higher levels than those whose teaching was poorly matched. Implications here highlight the need to recognise and nurture individual pupils’ abilities. In this context, within art and design, the frameworks provided by the National Curriculum and subsequent examination courses can play a supportive rather than a restrictive role. The principle of consistency in respect of pupils’ experiences engendered by the art and design curriculum at Key Stages 3, 4 and 5 establishes a baseline from which teachers may devise units of work appropriate to individual pupils’ needs. Appropriate coverage of the curriculum is monitored by Ofsted, yet the nature of its manifestation is flexible and, I suggest, restricted only by the subsequent interpretation of the teacher.

Central to the many experiences pupils face when studying art and design in secondary school is the development of a sketchbook. When devising suitable learning experiences within the framework of the curriculum the sketchbook takes on a significant role. The prominence of this role depends on the ethos of the art department; nevertheless by the time a pupil opts to study art and design at GCSE level they have both shown commitment to a domain and have selected a course where the sketchbook should have a significant part to play within the creative process: ‘The sketchbook is a creative tool: its use should encourage information-gathering, experimentation and risk taking in the search for a creative solution to a self-generated idea or problem’ [18].

To analyse how sketchbooks contribute to students’ experiences as part of a GCSE art and design course, this paper focuses upon the sketchbook developments of six students, drawn from a range of secondary schools.

Sketchbooks 1 and 2 (from the same school) reflect two students’ responses to the same theme, ‘Networks’. Although the theme is broad the students are given very clear guidelines to work to; the eventual outcome being a piece of sculpture. These guidelines comprise of a list of
The Japanese Tea Ceremony

There are 3 major styles of the tea ceremony; the tea ceremony is called the "Way of Tea" in Japan.

These are things that people use when in a tea ceremony.

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requirements that support students in meeting the learning objectives and associated GCSE assessment objectives. Such requirements include a suggested sketchbook layout, proposed routes for investigation, potential methods of developing ideas and the appropriate use of artists to inform and extend ideas and personal responses.

Initial pages in sketchbooks 1 and 2 have a common format, the page is divided into squares and a variety of materials are used to explore the potential of a range of techniques and working processes. These studies are in essence a warm up process of experimentation and are subsequently developed according to personal interests. Two very different journeys take place in response to the focus of Networks.

Sketchbook 1 draws comparisons with a string web design generated on the experimental page and qualities found in the cartoon imagery of the Marvel Comics' character 'Spiderman'. A series of investigations follow, guiding the spectator through the thought processes undertaken and practical solutions made until some resolution has taken place that will inform the sculptural outcome. Interestingly, during the investigative process, a range of artists are explored that enrich and inform possible developments highlighting the students conceptual understanding of a potentially abstract theme. The web motif is a thread that runs throughout the visual developments, becoming a vehicle for further exploring the stages from two dimensions into three dimensions. Thorough annotation accompanies the process and as such adds further clarity. There is clear evidence of confidence and perceived enjoyment where personal interests have successfully combined with an imposed starting-point.

Sketchbook 2 highlights a different fascination. There is equality in terms of confidence and level of engagement. However, when held up to scrutiny, this book reflects an interest in detail, the juxtaposition of imagery, layering and associated exploration of technique. Text is explored as a visual representation of the theme and individuality is demonstrated through combining observations of net like structures with a rigorous manipulation of techniques. Artists are identified who have served to influence ideas and enrich developments and rigorous annotation confirms this process. The pages of the sketchbook reflect stages of investigation in words, image and through the manipulation of techniques that will consequently inform the making of a three dimensional form.

There are unquestionably similarities between the two sketchbooks coloured by the structures put in place by the department, yet this framework has empowered the students in their quest for a response to the given starting-point. There is also evidence that the department is offering challenges appropriate to the students’ abilities. The priority given to annotation could, in other schools, have a detrimental effect on motivation by disempowering as opposed to empowering the student. In this case annotation is encouraged throughout serving to confirm and develop students’ understanding.

What is evident in the extracts from these sketchbooks are two facets of the creative process: preparation and incubation. In preparation, students are set the project and offered initial structure in terms of layout and organisation to support the development of ideas; in incubation, ideas evolve and, within the boundaries of the initial focus, decisions are made that allow the individual to explore personal viewpoints. This organic process is supported by the structures and guidelines put in place by departmental staff.

In sketchbooks 3 and 4 (from the same school) the students are similarly responding to a common starting-point; in this case firmly rooted within critical studies. The unit of work focuses on popular imagery and invites the students to analyse significant artists at the forefront of ‘Pop Art’. This research, evident in the sketchbooks, is used to contextualise ideas for the development of associated booklets and relief boxes.

In sketchbook 3 the student presents their knowledge of a range of pop artists in a visually dynamic way. Montaged extracts of artists’ work
are combined with drawing and text within a layout clearly inspired by the qualities of movement and use of colour typical of the work of Roy Lichtenstein. The student has selected the work of one artist to inspire the presentation of information about other artists. The page reveals the student’s consequent fascination with colour and composition.

The second page further develops this interest. The work of Andy Warhol is used to explore imagery and associated layout. As with the first page, a limited colour range is used to support the coherence of presentation and the repetitive nature of Warhol’s prints is reflected in the organisation of images. Annotation is highlighted using collage techniques and the resulting format confirms the student’s fascination with the graphic use of motif, colour and text.

In sketchbook 4 the project is used as an opportunity to explore links with letters of the alphabet. The significance of the choice of letters and associated imagery reflects a contextual understanding of Pop Art linked with the outcomes of its main exponents. What the work serves to illustrate is the student’s fascination with the power of text as a form of visual communication. The student links research about the artists with appropriate letters of the alphabet.

At the outset of a project at Key Stage 4 it is policy at the centre to inspire students by introducing the work of older peers. Preparation is therefore clearly set within the selected focus of critical studies and past student responses. As reflection and incubation in response to the project takes place, each sketchbook offers differences in approach and although similar artists’ images may appear in both responses, the interests of the students follow different paths. The limitations imposed by the project have generated responses that can be recognised as creative.

Figures 5 and 6 show sketchbooks drawn from different schools. The extracts are taken from two exhibitions that formed part of the AQA GCSE series of teachers standardising meetings for the 2004 art and design examination. The role of sketchbooks within each exhibition contributes to the holistic coverage of the assessment objectives, however, the approaches evident reflect different concerns and eventual outcomes; one leading to a ceramic form, the other to a two-dimensional painting.

In Figure 5 the student is responding to a brief to create a ceramic teapot form. The sketchbook is used to present research into the function and design of teapots, initially from Japan, setting the imagery firmly within the context of a tea ceremony. Additional images showing a range of contemporary teapots are collected, adding further context to possible designs. A series of expressive and intuitive designs follow where the student pursues an apparent enjoyment of manipulating and combining a range of techniques that reflects a degree of risk-taking combined with the more formal considerations of the design process. Some direction and guidance is evident in the general organisation and development of ideas yet the response is highly personal, expressive and energetic.

In Figure 6 the sketchbook is used to develop an idea in rigorously clear stages. The theme of interiors has led the student to primarily investigate the work of Patrick Caulfield, although other artists have been considered. What emerges is a fascination with the perspective and geometry of domestic interior spaces and the impact of colour and associated techniques in creating appropriate effects. Caulfield has clearly influenced and complemented the route the student has taken which is measured and clearly defined step by step.

In Figures 5 and 6 the approaches evident allow comparisons to be made between two individuals and the significance of their sketchbooks in revealing interests and attitudes to working processes. The projects may be different yet each student is responding to an initial brief. Figure 5 reflects an individual whose approach is expressive and experimental. In Figure 6 the student is controlled and sequential in terms of developing ideas. The incubation of ideas by these two individuals reveals contrasting styles that have
emerged through the use of a sketchbook supported by appropriate guidance from staff.

The sketchbooks offer an insight into two very distinct personalities. Arguably neither student could exchange the working methods of the other. Despite working within different disciplines, each has followed a similar route and met the same assessment objectives: the outcome of each journey, however, reveals very different approaches to working. Significantly, each has the freedom to pursue ideas in a personally relevant and creative manner.

The role sketchbooks play in supporting the creative process is significant and flexible. Once introduced to a project, students go through a period of preparation. This may be realised through concrete evidence (as seen in sketchbooks 1 and 2), through an ideas-storming process or as a series of thoughts leading to the identification of an appropriate starting-point. It is, however, at the incubation stage that sketchbooks truly support the student.

As reflected in the six examples shown, the period of incubation manifests itself in a variety of ways according to both the interests of the individual and the nature of direction offered by staff at the centre the student attends.

Incubation is arguably the most challenging and fertile part of the creative process. During this time the portable nature of a sketchbook enables students to gain access to and maintain ownership of their work whether in school or at home. For the private individual this is liberating and conducive to the process of incubation when risk-taking, experimentation and subsequent confidence building becomes vital.

Exemplar approaches to coursework units in the AQA GCSE Art and Design syllabus recognise ownership within the use of sketchbooks:

*Sketchbooks, workbooks or a journal might provide stimulus material for the development of work based on a personal interest or theme... The sketchbook, workbook or journal might also provide a means of recording personal reflections related to more than one unit of coursework as supporting material for the whole course [19].*

Important considerations are posed in terms of devising and delivering appropriate units of work. In respect of the sketchbook extracts selected, what is significant is the nature of the projects set by the centres and the impact this had on students’ responses. In each case, the development and realisation of ideas during the period of incubation led the student to the point at which they were able to respond successfully to the project through producing individual and comparatively creative responses.

Due to each centre’s careful and structured planning coupled with an established base of knowledge, skills and understanding to draw upon, students were exposed to methods and approaches that empowered them to respond creatively to the set projects.

Commitment and motivation from the individual are essential aspects of the creative process; particularly during the incubation stage. Although commitment is implicit within the student’s decision to opt for art and design at Key Stage 4, many students will nevertheless need skilful guidance.
to gain access to the process; for others, however, it will be intuitive requiring initial direction only. Such access can be affected by the environment in which the student exists both at home and in school where the powerful force of peer pressure can, if unchecked, have a negative impact. The privacy and freedom implicit within the pages of a sketchbook can offer a positive solution for the individual.

Art and design can offer diversity and relevance that may complement and challenge each student’s academic ability, adding flesh to the theory of intelligence and creativity as overlapping sets. If a unit of work at Key Stage 4 offers equal opportunity in terms of challenge, and subsequent teaching provides security for the individual during the incubation stage through the appropriate use of a sketchbook, then a truly creative outcome may be achieved. At the very least the result will be a resolution of ideas appropriate to intention.

In art and design, structure and commitment coexist with creating a personal vision and a new way of seeing and exploring ideas. Structure by its very nature can support the development of sound practice in art and design. On one level it offers success to students who are able to succeed by working creatively within established confines. Significantly, it also empowers students who are prepared to move beyond the framework of suggested possibilities as they embark on a creative personal journey of exploration and discovery [22].
References


5. Ibid.

6. Ibid.


8. Ibid.


10. Ibid. pp. 29–34.


15. NACCE op. cit, pp. 31–2.


17. Ibid. p. 256.


20. Sketchbooks 1 and 2 were from students at Christleton High School, Chester; Sketchbooks 3 and 4 from students at Sandbach School, Cheshire; Sketchbooks 5 and 6 from the 2004 AQA series of Teachers Standardisation Meetings, Manchester Metropolitan University, Didsbury Campus, 799 Wilmslow Road, Didsbury, Manchester M20 2RR.