

Teaching and Learning the Creative Process Through the Use of New Media and Technology (for the make-up artist)

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Abstract

The creative process for Make-up-artists is an integral part of their creative practice. Therefore, innovative pedagogical approaches should be adopted to nurture creativity and the creative process within this field of study. Media and technology can play a significant role in facilitating the teaching of creativity if used in partnership with traditional teaching methods. This study supports current research into the field of creativity and the creative process whilst drawing attention to how social and cultural influences guide the learning and teaching of creativity. To show this, this study takes a closer look at the teaching in make-up-artistry. This brings to light that ethics must be incorporated into the learning and teaching of the creative process. To acknowledge the existence of different viewpoints, I chose action research, ethnography and evaluation as design frames for research; selecting twenty-nine learners and twenty-nine stakeholders working across education and the creative industries in Scotland.

Introduction

The creative process plays a significant role within a creative practice as it enables and empowers the exploration of ideas to enhance and evolve creativity, expands knowledge and refines technical skills and abilities (Sawyer 2012). It forms the very foundations of any art created in the world of fashion, film and photography. Given that a make-up-artist can work in and across each of the aforementioned creative domains, the creative process they undertake to create a special effects make-up, fashion make-up or execute a piece of body art, is no different in respect to this.

Whilst developing and delivering courses in Make-up-artistry, from National Certificate (NC) to Higher National Diploma (HND) within the Scottish Qualification Authority (SQA) Framework, as well as vocational courses through English awarding bodies such as the Vocational Training Charitable Trust (VTCT) within the Further Education Sector (FE) in Scotland; I have noted, that despite a plethora of materials on the practical application of a make-up, there is a considerable lack of contextualised educational materials, written or otherwise, specifically focused on the creative process for the make-up-artist.

To introduce the creative process and cultivate creativity in my learners I have researched and used various resources within my professional practice, such as: art exhibitions and galleries; film; literature; photography; through to historical research and fashion. However, I have observed that not all learners undertaking study in make-up-artistry can easily adapt this into *their* learning and understanding of the creative process. Furthermore, through the use of personal sketch books I have openly shared the process I undertake when designing and creating a make-up as well as demonstrating the practical skills and tools required to execute a design. Whilst some learners approach sketch books with trepidation, they will incorporate the use of them into their practice. However, most view them as having no impact on their creativity and therefore, unfortunately, do not see the value they could add to their creative process.

Interestingly, this is a subject delivered in other parts of the United Kingdom (UK), such as England, up to Undergraduate level (UG). Why relevant educational materials to support and guide aspiring

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make-up-artists through the creative process have yet to be written, I am unsure, but it is a question I hope to address. In doing so, I have endeavoured to research the use of traditional pedagogical approaches used in make-up-artistry, supported by new media and technology - a resource vital to breaking down barriers faced by learners, such as cognitive, physical and emotional - to create inclusive based learning (Passey 2014).

Information and communications technology (ICT) is influencing change within education and society as a whole (Redecker et al. 2011). Therefore, one of the overarching purposes of my research was to appraise how the creativity of my learners could be nurtured through the use of new media and technology embedded within a virtual learning environment (VLE) whilst working simultaneously with the technical, mental and psychological aspects of the creative process, which are key to the development of learning to become an artist (Carabine 2013). Developing new and creative teaching approaches that utilise media and technology within the delivery of make-up-artistry courses could also provide other subject areas with a contextual backdrop to the learning and teaching of the creative process and creativity.

For learning to be effective, I believe that theories based on Cognitive Constructivism, Social Constructivism, Behaviourism and Humanism are best suited to nurturing creativity, if used in combination to suit all learning needs, (Rogers 2002), as embracing various methods of teaching enhances learning (GSI Teaching & Resource Center, no date).

Cognitive Constructivism can support and guide learners through “inquiry” and “previous learning” (Armitage & Bryant, 2007, p77) by offering access to resources that support discovery in acquiring new knowledge whilst integrating with past knowledge. Whilst Social Constructivism highlights the need for learning through collaboration, Behaviourism reinforces learning through repetition and positive encouragement (GSI Teaching & Resource Center, no date).

Combining the above teaching approaches is underpinned by my belief in the Humanist approach; which allows learners to take responsibility for their learning in a safe environment with on-going guidance, support and encouragement for each learner to realise their intellectual and emotional potential as an artist and person (Curzon 2003).

Equally, this approach supports Education Scotland’s vision, through Curriculum for Excellence (CfE), to develop lifelong learning, captured in the CfE four capacities, which are: Successful Learners; Confident Individuals; Responsible Citizens and Effective Contributors. These are developed in the following ways:

- Successful learners: by encouraging the use of new media and technology to support independent learning, allowing learners to think creatively and independently;
- Confident individuals: supporting learners to relate to others through collaboration with peers in photography, film and fashion. This would allow learners to manage themselves by drawing on past experiences to achieve success within collaborative work;
- Responsible Citizens: encouraging learners to work with peers who have different ethnicity, social and cultural backgrounds to foster respect for one another;
- Effective Contributors: encouraging constructive, self and peer evaluation in a safe and supported environment will not only allow learners to apply critical and creative thinking, but will also promote self-development and skilful communication.

Another key focus was to dispel common myths surrounding creativity, to gain a clearer insight into the science of creativity and what factors contribute to an individual’s creativity. One common myth is that those suffering from mental illnesses are predisposed to creative genius; however, studies

carried out by personality psychologists throughout the 1950s and 1970s suggest that “creative people are happy and productive” (Sawyer 2006, p 55, p87). Also, for effective delivery of the creative process, having an understanding of its different stages is vital.

Literature

Csikszentmihalyi (2013) examines the psychology of creativity by first asking the question “where is creativity” rather than “what is creativity”. He claims that creativity plays an essential role in forming meaning to our lives for two main reasons; creativity is what makes us human and, whilst immersed in a creative activity, we feel more content and satisfied with life, giving a “profound sense of being part of an entity greater than ourselves” (Csikszentmihalyi 2013, p.2). He terms this as being in the *flow* whilst imparting the importance of nurturing creativity, as our future is intrinsically linked to “human creativity” (Csikszentmihalyi 2013; Redecker et al. 2011).

Sawyer (2006, p.27) argues that creativity is shaped by “social, cultural and historical factors” while Kaufman and Sternberg (2006), Thomas and Chan (2013) and Csikszentmihalyi (2013) contend that creativity is not solely the product of an individual, but relies on the relationship between the domain, the individual and specialists within the domain. This said, Sawyer (2012) also discusses the *individualist* approach as well as *sociocultural* approaches and considers the most recent research cognitive neuroscience has to offer. Sawyer’s aim to convey creativity through the use of modern science is a common thread throughout his work, (Sawyer 2006; 2012). Additionally research carried out by personality psychologists during the 1950s and 1970s allowed them to distinguish between Big-C creativity and Small-C creativity. The latter applies to everyday creativity we all have that is necessary to carry out our daily tasks, while Big-C creativity relates to those who have made a significant impact within their field or culture, (Simonton 2012; Sawyer 2006; Csikszentmihalyi 2013).

Whilst researchers have different theories on the creative process most of them agree that it has four basic stages: preparation, incubation, insight and verification (Sawyer 2006). Petty (2009) describes the creative process as ICEDIP (inspiration, clarification, distillation, incubation, perspiration and evaluation). Although there is a slight variation in terminology and number of stages used by Sawyer (2006) and Petty (2009) both agree that due to the recurring nature of the creative process each stage will be experienced on numerous occasions and not in any specific order. Expanding on his theories through *individualistic approaches* Sawyer (2012) provides an in-depth discussion on the creative process, whilst demonstrating how his eight stages of the creative process relate to other models such as Mumford’s group (Scott et al. 2004 cited in Sawyer 2012, p.89).

The creative process can be challenging. Carabine (2013) provides a candid, first-hand account of her fears surrounding the creative process - which Beghetto and Kaufman (2010) refer to as “uncomfortable” - and how she has developed her creative practice through deep self-reflection. Education can play a key role in supporting learners to explore the creative process, as they are afforded a safe place within an educational context, supported by their lecturers or teacher (Carabine 2013). What makes an individual creative and how creativity can be nurtured are intriguing issues, given that creativity is the “interaction between a person’s thoughts and a sociocultural context” (Csikszentmihalyi 2013, p. 23). Furthermore, learning from what others have done previously is critical and is an integral part of learning to become proficient in a particular domain (Sawyer 2006).

However, Robinson (2011) believes that education stunts the growth of creativity and argues that it needs to be transformed if creativity is to flourish within our education system. Whilst Beghetto and Kaufman (2010) state that creativity is seen by some in education as a *bad habit*, Sawyer (2012) writes that *convergent thinking* is valued more than *divergent thinking* within education. However,

Sawyer (2012) and Carlile and Jordan (2012) both understand that the constraints and demands faced by those working in education heavily influence how creativity is taught and agree that education is crucial to the development of creativity. Education Scotland (no date a) also support the importance education has in nurturing creativity. For this reason, Beghetto and Kaufman (2010), Sawyer (2012) and Carlile and Jordan (2012) offer those working in education strategies to foster creativity within schools, colleges and universities.

For those who practise creative teaching, it is important that theories and approaches adopted sit with their values, whilst ensuring that their creativity is uninhibited, as learning creativity relies on the three different elements: discipline, learning and creativity (Carlile and Jordan 2012, p.187). This is supported by Beghetto and Kaufman (2010) as learning by example - *role model creativity*.

As providing a supportive environment is essential to cultivating creativity, Carlile and Jordan (2012) offer us an in-depth discussion to Bronfenbrenner's model of interacting systems: *Microsystem*, *mesosystem*, *exosystem* and *macrosystem*; and advise those who wish to create an environment that supports and enhances creativity to take measures, amongst others, to "supply a range of appropriate resources" (Carlile and Jordan 2012, p.52).

One such resource is the virtual learning environment (VLE) or virtual space, which is an environment conducive to stimulating creativity through the use of websites, film, blogs, photography, videos, video conferencing, podcast and vodcasts, (Carlile and Jordan 2012; The University of Nottingham, no date). VLEs have, in the past, been predominately used as depositories for uploading information. However, with digital services and resources becoming widely available, they can now be utilised as platforms for new media and technology-based teaching methods within a course to complement traditional teaching methods, (MacDonald 2006). This approach is known as *blended learning*. Blended learning provides learners with additional choices when making decisions, (Hill 2004; MacDonald 2006). Furthermore, technology can also increase creativity in learners by enhancing transferable skills and breaking down barriers associated with disabilities (Carlile and Jordan 2012; Passey 2014).

Creative Scotland - a public body that assists the arts and creative industries throughout Scotland - and their partners, are supporting Scottish educators and creative practitioners by sharing their visions for a more creative Scotland through their 4 Workstreams which include the use of digital resources such as the Creativity Portal and VLEs (Creative Scotland 2012-2014).

Methodology

For a clearer insight into the science of creativity, the creative process, new media and technology and teaching creativity it was necessary to acknowledge the existence of different viewpoints which shape social inquiry (Thomas 2013). Therefore, in light of this I selected action research, ethnography and evaluation as design frames for research purposes.

My professional judgment and that of others as "insiders" who have an "understanding" and are active "participants" (Thomas 2013), were important to ensure that data collated was valid to support the learning and teaching of the creative process. Working from this viewpoint, I specifically chose judgment sampling to address specific areas of research. Disadvantages of this type of sampling can produce a narrow viewpoint (Collins 2010) and consideration needs to be given, that as a small scale inquiry such as this one, I am unable to achieve a true reflection of the wider population and further sampling, such as stratified sampling would be required (Bell 1999; Thomas 2013).

I used both deductive and inductive approaches which informed the structure and layout of my questionnaires. These were designed to provide the numerical statistics (quantitative) required, as well as insights to the human thought process (qualitative) - which I believe are an integral part of the creative process.

Qualitative and quantitative questionnaires were used to improve the reliability and validity of research (construct and internal). Further, this allowed triangulation of data to develop the themes that emerged from my research. Reviewing literature was also essential. This enhanced internal validity, to establish constructs, and supported external validity by connecting my findings to current academic research on creativity, education and technology (Collins 2010).

A qualitative questionnaire was distributed to twenty-nine learners over two groups, with thirteen learners in one group answering questions through a 'loose' form of interviewing on a one to one basis with me "to gather in-depth responses..." (Leonard and Ambrose 2012, p.102). To ensure I was using two types of reliable methods to gather qualitative feedback, I split the remaining sixteen learners into four focus groups (Leonard and Ambrose 2012).

Using responses gathered from qualitative data and literature relating to the science of creativity, I designed a quantitative questionnaire to assess how stakeholders within education viewed the creative process and how it could be supported within an adult learning environment. This was given to fifteen stakeholders within my centre; from support staff to lecturers in TV/Film and Media, Photography and Graphic Design. The advantages of this type of questioning is that it is relatively easy to administer and easy to follow up. However extensive preparation and analysis can be time consuming (Hopkins 2002). To triangulate my findings I used judgment sampling on ten specific job roles within, or relating, to the creative industries; art teachers, photographers, film makers, make-up-artists, musicians, producers, artists, performing artists and architects. Qualitative questions were also used with a small focus group of four people within the Learning Technology and Resource department to ascertain specialist skills and personnel that could support the learning and teaching of the creative process.

Analysis of Findings

Creativity

In his quest to explain creativity Csikszentmihalyi (2013) first posed the question "where is creativity" rather than "what is creativity". What I wanted to understand was the personal meaning an individual attaches to the term creativity. Having a sense of this offers me a starting point to develop my practice in a way that will support and nurture an individual's creativity effectively. From qualitative feedback provided by learners, I was able to ascertain their different meanings and viewpoints on creativity. Words and statements they used to describe creativity were: *inspiration, imagination, unique, different, a form of expression* and *thinking outside the box*. Of participants working and practising within the creative industries and education, 39% believed that *self-expression* best described the meaning of creativity and 34% believed that *freedom in expression* did. *Imagination without limits or boundaries* appears to be less important to those working in industry as a way to describe creativity, compared to the responses from learners, who placed value on the creative process and creativity as a way to work without limits or restrictions. In one learner's words "Creativity is all about imagination...from research to the application, it is limitless".

Stages of the Creative Process

The inspiration stage of the creative process was noted by 43% of professional practitioners as the most important stage, which supports findings within qualitative data provided by learners that they were using the creative process as a means to inspire and explore their ideas further. Learners were

also actively evaluating their progress by comparing basic skills to more advanced skills as they progressed in their learning and creative journey. Additionally, 36% of participants working in industry or education viewed evaluation as an important stage of the creative process and 50% of those respondents strongly agreed that metacognitive skills were an important factor which contributed to an individual's creativity. Carlile and Jordan (2012, p.248) expand on this further by explaining *creative cognition* as "...the highest form of cognition and therefore is closely associated with intelligence...or it forms part of every aspect of cognition where novelty is involved."

Research suggests that the incubation stage allows the subconscious mind to digest information, reflect and evaluate at a distance in order to gain clarity and insight (Petty 2009; Sawyer 2012). Interestingly, only 8% of seasoned professionals credited this as an important factor, whilst learners did not mention it.

Further analysis of qualitative data gathered also highlighted that undertaking creative research and following the creative process supported learning as well as professional development. I have mapped themes and made connections to this in Figure 1 using quotes from learners.

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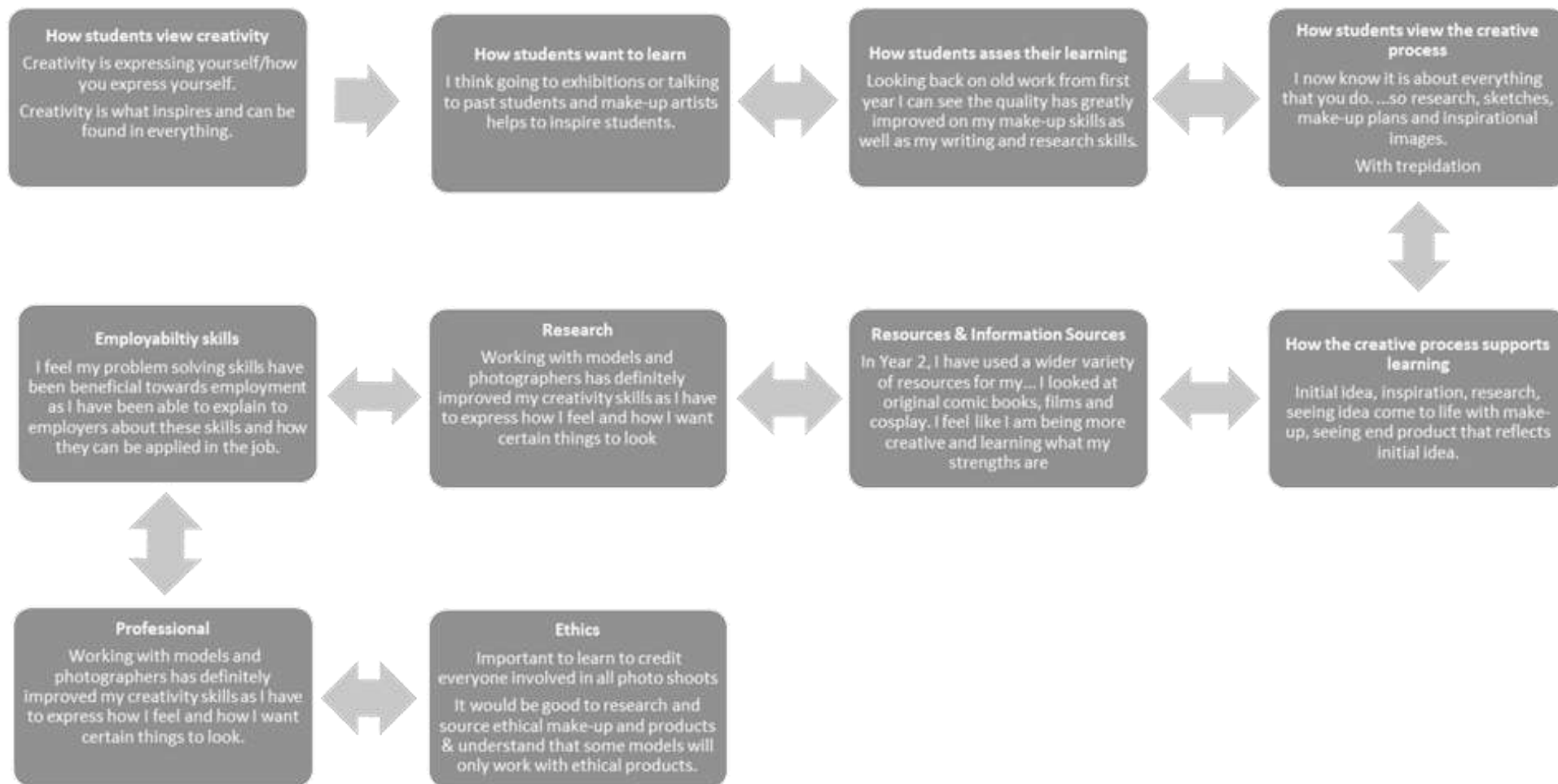


Figure 1. Mapped themes

Social and Cultural influences

50% of creative practitioners strongly agreed and 43% agreed that social and cultural influences impact on an individual's creativity. Although learners did not directly identify these factors, they did demonstrate that they were being influenced by both; as they sought to use exhibitions, galleries and books as methods to support their learning and noted that working with others related to, or within their creative domain, increased their creativity, (Sawyer 2012; Csikszentmihalyi 2013). Additionally, art, in our individualistic western culture, plays several different purposes, one of which is "expression" as well as "...the belief that creativity contributes to self-actualisation and expresses the inner being of a person" (Sawyer 2012, p.268). This supports views expressed by participants and the importance they place on *self-expression*. It also highlights how my personal beliefs have been shaped and how this has influenced a Humanistic approach within my professional practice.

Media and Technology

Some learners stated that they used a variety of media to support their research methods and that they were making use of modern technology to create e-folios, which included the use of computer software such as Microsoft Word, Power Point and PDF.

Additionally, quantitative data provided clarification that those working in education and the creative industries believed that the creative process could be taught effectively through the use of modern technology in the following areas: group work, one to one contact and a VLE. The data also revealed that whilst only 29% valued a VLE as a means to support creativity, 62% placed greater emphasis on this when used in *combination* with face to face teaching. Current research also suggests that VLEs can provide an environment which supports the learning and teaching of creativity if a blended approach is adopted to support traditional teaching methods (Carlile and Jordan 2012; Hill 2004; MacDonald 2006). Additionally, data collated from the Learning Technology and Resources department within my centre noted a plethora of resources and personnel available that are available to support blended learning, such as: Learning Technologists, Subject Liaisons, Video and Media Team and various online resources.

Ethics

Drawing from data and literature gathered, I would suggest that teaching ethics as part of the creative process should have greater emphasis placed upon it. I believe that teaching and learning creativity within a blended learning environment should not only seek to nurture our creative and intellectual intelligence, but should and can provide us with the opportunity to nurture our emotional intelligence.

Within my practice I have met resistance from my team on this very topic. Furthermore, not all learners agreed that ethics should be taught as part of the creative process, some did not consider it at all. However, 57% of professionals working in education and the creative industries strongly agreed that the creative process delivered as part of the curriculum could support ethical and sustainable issues.

Could we change the individualistic element of our western culture to one that is based on altruism as opposed to individualism (Beyond Current Horizons, 2009) through the learning and teaching of creativity? I hope so, as our future depends on it (Csikszentmihalyi 2013).

Reflective account

My main purposes and intentions when undertaking this project were to develop my professional practice to support and nurture creativity in others (as well as myself) in a positive and meaningful way that would enhance the learning experience and enrich life, (Hillier 2012). Whilst achieving

what I had set out to do, I have gained far greater insight than this, developing both professionally and personally.

Fairness, respect, equality and enhancing the lives of others are values at the core of my professional practice and my beliefs and past experiences have shaped who I am. Therefore, before undertaking research, I was open to having any, or all of these challenged. In order to do so I knew I had to achieve a deeper understanding of my emotional and intellectual intelligence through professional development (Hillier 2012). My internal factors noted above acted as key motivators. However, whilst some external factors provided motivation, my working environment placed considerable restraints and constraints upon me which I found both demotivating and demoralising. Action research provided me with the opportunity to learn through personal experience and critical reflection, that this was counterintuitive to my professional development and wellbeing. This was both *illuminating* and *transformative* (Moon1999). Whilst I practised and upheld my values towards others, on reflection, I did not believe I was worthy of the same treatment and that my practice was falling short of being a positive influence in my life. Personal development through self-awareness empowered me to take action towards changing my working environment (Moon 1999) and through conceptualisation (Rogers 2002) I have become aware that teaching creativity is not confined solely to my practice in the classroom or my subject area, make-up-artistry. I place great emphasis on using new media and technologies within my professional practice to nurture creativity and enhance the learning experience and action research has enabled me to understand more fully that creativity and innovation can be developed through the use of technology to have a positive impact on society.

Conclusion

It was my intention to investigate how the learning and teaching of the creative process could be enhanced through the use of media and technology alongside traditional teaching methods, whilst addressing the issues surrounding the lack of useful resources on the creative process pertinent to make-up-artistry.

Whilst undertaking research has allowed me to realise my intentions, it has enlightened me to the fact that Small-C creativity is an innate factor that exists within all humans and how Big-C creativity contributes to changes within a culture (Simonton 2012; Csikszentmihalyi 2013). This knowledge has provided me with the opportunity to critically assess my values within the context of my professional practice and has been the primary motivation in changing the direction of my career within FE, to the role of a Learning Technologist. This will allow me to support other curriculum areas, as well as guide best practice in the learning and teaching of Small-C creativity through the use of media and technology (Education Scotland, no date b). Hopefully, the part I play in this will not only inspire Big-C creativity in learners at my centre, but in other educational settings throughout the UK and beyond as I am keen to share the knowledge and experience acquired within my teaching practice to support the expansion of online and technology focused learning for "...educational development..." (Moon 1999, p.35).

This study verifies previous works undertaken by Csikszentmihalyi (2013), Sawyer (2012), Simonton (2012) and Kaufman and Sternberg (2006) and furthermore has highlighted how social and cultural influences shape the learning and teaching of creativity.

It also emphasised the need for ethics to be addressed on sustainability to support current research that states our future on this planet is bound to "human creativity" (Csikszentmihalyi 2013; Redecker et al. 2011).

Drawing on the theme of ethics through data and literature, I argued that greater emphasis should be placed upon teaching ethics as part of the creative process within a blended learning environment. In respect to this, I have made tentative progress, developing materials on professional ethics as part of the creative process, using the VLE as a platform to complement traditional pedagogical approaches.

By investigating the use of new media and technology to enhance the learning and teaching of creativity it can be concluded that by adopting a blended learning approach to support traditional teaching methods, human contact - which is highly valued within a learning environment - will not be replaced, but supported by technology.

“...although technology can offer vast amounts of information, the motivating effect of intellectual and emotional interactions between teachers and students in a real classroom are not easily replaced” (Carlile and Jordan 2012, p.88).

My use of an interpretive approach did place certain limitations on my research. Whilst it provided me with insights to the specifics of those working in education and the creative industries; the particular needs of learners; and resources available to support the learning and teaching of creativity, care must be taken not to oversimplify these findings.

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