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CREATIVITY AND SONGWRITING

ROB RIDEOUT

**A Thesis submitted to the University of Huddersfield
in partial fulfilment of the requirements for the
degree of Master of Arts by Research**

The University of Huddersfield

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Abstract

This study tested a number of theories of creativity in an experiment where a song was written and recorded every day for over 170 days using various techniques and ideas. 15 have been reworked, finalised, and released on an audio CD, attached as Appendix 1. The finished CD contains material from a number of styles and is intended to showcase the gradual progression of the songwriting process and the change in style over time, and explores the question of whether songwriting and creativity in general can be improved through regular practice. It also demonstrates a wide array of skill and fluency in songwriting and creativity gained from a large amount of practice, whilst also exhibiting examples of the material that was written in the daily songwriting practice routine.

The audio CD (Appendix 1) is accompanied by a data CD containing 100 recorded demos of songs written over the course of the experiment (Appendix 2) and a thesis explaining the creative process behind selected tracks, complete with a literature review of research into the current understanding of creativity. This is explored from both a psychological viewpoint and a more subjective viewpoint, relating specifically to songwriting. The thesis also attempts to find common ground between psychological practices aimed at improving general creativity, and more specific songwriting techniques, intended to explore how songwriters can produce a higher quality or quantity of work. It addresses such issues as writer's block, songwriting as a routine, and also the relationship between the number of songs written and the quality of those songs, whilst also autoethnographically detailing the writing process of the songs written over the 170 day period, and the experience of the artist of the effects of the practice routine.

The project aimed to determine whether creativity could be improved by following a regimented practice routine over the course of a set period of time (in this case, roughly half a year). Both quantitative and qualitative data have been collected from this experiment and analysed from an autoethnographical perspective, and it has been determined that in this case, the artist's perceived skill in songwriting has grown due to the amount of time specifically dedicated to it, the regular practice enabling a larger volume of higher quality work to be produced. Secondary research also showed that creativity in general was improved from the exercise, and that this enhanced creativity can be applied more generally than simply to songwriting.

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Introduction

This thesis attempts to answer the question of whether songwriting can be improved with regular practice, and if so, whether this improved artistic creativity can be applied more generally to other artistic and problem solving situations. It also explores whether creativity is a constant or a skill which can be practiced and developed over time, and whether inspiration can be produced at will after training.

Using autoethnographical research methods, I detail my own experience of writing a new song every day for 170 days, using techniques suggested by various sources, from interviews with successful songwriters to books claiming to boost creativity and problem solving skills in a business capacity. Many of these songs are recorded as demos. To ensure proper protocol when carrying out the autoethnographical research, the thesis includes a short literature review on this subject, outlining the nature and pitfalls of this research method, and the steps taken to further ensure the reliability and validity of this study. After the initial routine writing phase of the experiment (between August and April) is over, I redirect my efforts to selecting, reworking, and arranging 15 of the demo pieces to be featured and recorded to a much higher standard on the final CD, and cease my experiment of recording every day from then on.

The thesis also details various theories of the psychology behind creativity, and contains a literature review on the subject before describing in detail the results of my self-reflective case study, in which I attempt to improve my own creative potential using regular repetition of the creative process and implementation of other techniques discussed in the relevant literature. Alongside the written portion of this submission I also include a data CD containing 100 demo recordings of songs and a full length album CD containing the reworked final versions of 15 outstanding songs from the portfolio, complete with artwork. The CD is branded as a release from Flying Machine, which is an artistic pseudonym used to distance my final musical releases from the rough demo tracks from which they originated.

In the literature review, I attempt to find a wide variety of sources on the subject of creativity from which to draw upon and discuss. I apply suggested practices from these texts to my songwriting process, with a view towards testing the hypotheses they provide. A large amount of my information in the literature review comes from lectures by creative experts organised by TED, a company that organises conferences in which lectures are given from various leaders in their field, which are recorded and uploaded to the company's website, where all lectures are available and free to watch online. A large amount of content generated by TED relates to creativity in various forms, and therefore the website is a valuable source of information in the literature review.

Despite the widespread availability of research on ways of improving creativity in a problem solving sense and the equally widespread availability of texts suggesting ways of improving songwriting skill, I find few that specifically refer to techniques established to improve the quantity or quality of artistic creativity from a psychological and scientific point of view. I dedicate a large amount of research to finding common ground between these ideas, and using proven psychological methodologies in order to enhance the artistic potential of the individual, the idea of regular and structured practice, for example.

The thesis also explores collaborative creativity within time constraints in the experiment, through a project entitled the Bad Idea Band, although collaboration is not a primary focus of my research. I feel that it is necessary to include, as other research cites collaboration as one of the most potent methods to improve creativity. This portion of the experiment corroborates these findings, and I plan to explore the potential of this idea in greater depth in future research.

As well as the primary focus of my experiment (songwriting), I also attempt other pursuits to test for improvement in my general creativity, as well as simply from a musical perspective, to ensure that any findings in the improvement of my songwriting is not simply a result of frequent practice in a single narrow field. I find that my results in creative pursuits such as art, poetry, games design, and problem solving in general increase in quality after the experiment has run its course. I have chosen

not to include the majority of this data in my findings, as my exploration of this secondary part of the experiment is less formal.

This thesis aims to explore creativity through songwriting, and is a composition thesis. Although it covers research into the nature of creativity, the main contribution is to explore the effects of regular songwriting on creativity from an autoethnographical point of view. In the majority of the portfolio work the research is directed towards writing guitar based music with lyrics. There are some exceptions, including instrumental songs and electronic compositions, but these are included in order to showcase practice in music to which I was unaccustomed, emulating the feeling of having less practice and expertise in songwriting in general.

Autoethnography

Over the course of the last year, I have conducted an autoethnographical study into the culture of creativity, and the various methods that are used in order to nurture it. While, strictly speaking, the experiment is more of a self-reflective case study, I chose to structure it according to the guidelines of conducting autoethnographical research as suggested by Ellis (2004, p.742), focussing on cultural and social aspects of personal experience. The ultimate goal of any autoethnographical study is to shed light on the psychological and cultural factors surrounding the autobiographical material that is being studied. In this case, the experiment centres primarily on the individual, rather than on the wider culture of songwriting, meaning that by the standards of Chang (2007, pp.46-49), this experiment would not classify entirely as autoethnographical. However, the research for the experiment takes into account factors from the overarching culture of creativity and songwriting, taking cues from perceived problems in the creative mind-set, such as writer's block.

By analysing research into the wider culture of creativity, particularly that used in business and management training (Kelley and Kelley, 2013), I have attempted to cross reference findings and techniques from a range of sources with the more specific culture of songwriting. This is explored

through a creative experiment in using psychological studies and theories to shed light on the artistic facets of the mind. Autoethnography allows a close personal voice within social research (Wall, 2008, p.1), and allows research into intangible subjects (such as that of creativity) through the exploration of first hand qualitative data. Typically, autoethnographical studies contain an informal writing style, and can be almost poetic in nature (one example is Poulos, 2008), but in this case, I chose to follow a more academic approach to the writing, in order to avoid overemphasis on narration, rather than analysis (Reed-Danahay, 1997; cited in Ellis, 2004, p.2). Taking cues from other notable noted pitfalls of autoethnographical study, I also chose to make notes on the writing process behind each of the songs I wrote as the song was completed, ensuring that there wasn't an overreliance on personal memory as a source of data, as memory has been shown to be subject to change, depending on outside factors, such as language used in description (Loftus and Palmer, 1974).

It should be noted that in this instance I had attempted a similar project previously on a smaller scale, and had some idea of what to expect from my regular songwriting experiment. The more recent experiment was much more controlled and structured in nature so as to ensure a high level of reliability and validity amongst the results. It cannot therefore be assumed that certain results would also apply to an individual less practiced in exercising their creativity so regularly.

Theories of Creativity

In 1991 David Kelley, Bill Moggridge, and Mike Nuttall founded IDEO, a company that explored the psychology of innovation. By focusing on the creative process in product design, and treating creativity as an important part of the business model, they changed the paradigms of the corporate world. Since then, they have worked on various projects, from designing Apple's first computer mouse to innovations in next generation surgical equipment. Citing a study by technology company IBM, IDEO put forward the idea that creativity is the "single most important leadership competency in modern business" (Berman, 2010; cited in Kelley and Kelley, 2013, p.4).

IDEO and its staff work on the basis that everyone is creative. Their research described a long standing preconception of the “creative type”, people who would lead the way in fields such as architecture and advertising because of some unexplainable, God given ability to think creatively when those around them were incapable of doing so (Kelley, 2012). The research conducted at IDEO (and later the d.school, a design company set up by David Kelley) led to acceptance of creativity as a skill which, like a muscle, only gets more powerful as it is used, and showed that creative was not simply a synonym for artistic (Kelley and Kelley, 2013, p.2). Previous conceptions of creative types allowed some executives to hide behind the excuse that they just weren’t creative people, and this as a long term mind-set allowed their creativity to atrophy, culminating in a downward spiral where any attempts at innovation led to what they perceived as poor results, which further reinforced their notion of a lack of inherent genetic ability.

Whilst IDEO focuses on innovation and design in a business environment, the core concepts applied to their work can be applied more widely. Some of their exercises commonly used to warm up creative thought are applicable to songwriting or inspiration in any facet of art. There are several related examples of tests of creativity, including the 30 Circles Test (Brown, 2008) and the Alternative Uses Test (Guilford, 1967) that focus solely on quantity, rather than quality (although to a slightly lesser extent in the latter). In the 30 Circles Test, participants are presented with a piece of paper with 30 blank circles printed on it. The participant is then given 90 seconds in which to fill as many of the circles as possible with a drawing. Any drawing is applicable, including doodles, shapes, words, and even drawings that incorporate several of the circles at once. The objective is to overcome a twitch response to edit our own thoughts, as a second spent deciding whether a certain idea will be perceived as good enough is a second wasted. The alternative uses test is similar, but involves thinking up as many uses for a designated object as possible, again within a time limit (Brown, 2008). Interestingly, in tests such as these, children tend to excel. In terms of sheer numbers children often fill more circles in than adults, and at an accelerated pace (Brown, 2008). Kelley and Kelley (2013)

postulate that this is because they are yet to learn to fear the criticism and judgement of others. For example, a person who sees themselves as uncreative or inartistic will frequently waste time by asking themselves or others whether a certain filling for a circle is a valid answer, or whether it transgresses any of their preconceived rules of the game, whilst a person who prides themselves on their artistic merit is likely to spend much longer filling in circles in order to make their work satisfactory to themselves, or impressive to others. Both of these mind-sets will waste time during the task, during which time a toddler would typically be scribbling in all the circles, using their time more creatively and efficiently, and having fun whilst doing it (Brown, 2008). Adults can still learn to exhibit this kind of creative freedom, but to do so would initially require a trusting environment in which to work, where the subject feels as though his or her work isn't likely to be judged by others (Bidault and Castello, 2009; Covey, 1989).

We are all naturally creative; the trick is to remain creative as we grow up. (Pablo Picasso, quoted in Robinson, 2006)

(Robinson, 2006). Ken Robinson, famed for his 2006 TED talk *How Schools Kill Creativity*, claims that children are educated out of their creativity and originality by the pressure of an educational culture where mistakes are stigmatised. At the age where children begin fearing judgement from their peers or superiors, their creativity starts to wane as they deem their own creative endeavours unsatisfactory. At this crucial point in a child's psychological and social development, they are highly vulnerable to criticism regarding their creativity, and often develop a fear of perceived failure. Research by IDEO found that a third of businessmen and women have experienced what researcher Brene Brown refers to as a "creativity scar", a childhood memory wherein perceived negative criticism of their creativity stuck with them, causing them to be dissuaded from future attempts at anything creative (Brown and Katz, 2009, pp.63-64). When a child loses confidence in their creativity,

it can have a profound effect, leading into a downward spiral. As the metaphorical creative muscle atrophies over time, any creative work they produce is perceived to be judged by the standards of professional work or those around them with more practice, and this can prompt a response of disappointment if they fail to live up to these unrealistic expectations, further reinforcing their belief that they simply aren't a creative person.

In order to break this vicious circle, it is necessary to accept that initial attempts at creativity may yield very simple or low quality results, and more importantly, to understand that this stage is simply a starting point upon which to build a stronger creative mind-set. There are exceptions, but to use the electric guitar as an analogy, one would not simply expect to be able to play well upon first picking up a guitar. It is only through repeated mistakes and criticism (either from others or from ourselves) that we learn to hone our skills, and the studies mentioned above suggest that this applies equally to endeavours of the creative mind as well as the mechanical aspects of a skill such as playing an instrument.

Songwriting, like any other discipline, requires initially stepping outside of one's area of expertise, and the personal nature of the practice often causes people to approach it with wariness, especially in the case of those types of writers who use songwriting as a creative outlet for personal issues (Zollo, 2013, p.655). Sharing problems and feelings with a wider audience can leave a writer or composer feeling particularly exposed to criticism, and could often lead to a heightened sense of failure if their work is not well received. The direction in which creativity goes at this point depends primarily on the individual's self-efficacy and confidence; factors such as motivation, goal setting, and self-esteem are linked closely to the belief in oneself to overcome obstacles and complete tasks (Bandura, 1977).

Training in creativity is as much about building the necessary self-confidence to feel comfortable taking the risks as it is to do with finding or pinpointing inspiration in the first place. This manifests itself in the ability to write without censoring or editing oneself (as in the 30 Circles Test), leading to

having a larger volume of ideas, and a larger range of tools with which to process those ideas. In recent years, the addressing of these issues has become increasingly evident within the corporate world, with companies that pride themselves on their creative, innovative, or problem solving ideas, investing large amounts of money into dedicated spaces for their employees to feel relaxed and creative, and ensuring that negativity is kept away from the workplace, in order to encourage a larger volume (and consequently a higher calibre) of ideas and products (Kelley and Kelley, 2013).

The research of psychologist Albert Bandura proved that self-efficacy can be learned, by helping ophidiophobics overcome their fear of snakes (Bandura, 1977). The method was as simple as introducing the participant to their fear in several small stages: for example, being told there is a snake in the next room, touching or opening the door, standing close to the snake whilst wearing protective gear, and ultimately, touching the snake without fearing it. The same can be applied to overcoming a fear of creativity, or more accurately, a fear of one's creative endeavours being judged; training someone to feel comfortable when exercising their creativity is the first step in rediscovering their creative mind.

To effectively exercise one's creativity, it is important to have an understanding of failure, and the nature of one's own mistakes. Robinson (2006) suggests that educational systems tend towards discouraging risk-taking, due to the fact that it creates an increased possibility of failure. However, this fear of failure is absorbed by students, leading to generations of people so afraid of making mistakes that they deliberately label themselves as uncreative in an effort to avoid having to try. Mistakes are an integral and natural part of any process, and can result in positive and surprising outcomes, especially when applied to creativity. The nature of a mistake implies an unforeseen possibility, and learning of extra variables in any possibility leads to new avenues of thinking. Indeed, Whitehead (1999, cited in Cascone, 2007, p.393) suggests that failure is the only outcome of any endeavour from which more information can be gathered. Perfection offers no incentive for improvement.

Failure has always existed as an accepted and valid creative tool, from breakthroughs in the field of medicine (as in the discovery of penicillin) to haute couture fashion (Mizrahi, 2008). Indeed, several genres have emerged in music where failure in audio systems has become the desired stimulus for source audio, including genres such as glitch, sinecore, IDM (Cascone, 2007, p.392), and 21st century minimalism (Reich and Hillier, 2002, p.20). Within songwriting, it's difficult to judge what is perceived as failure or a mistake. A mistake performed with enough confidence may be perceived as interpretation, rather than error. As Harris (2011) suggests, in something as subjective as music, mistakes may be indicative of a lack of confidence, and it is this lack of confidence, combined with a lack of ability to deal with one's own mistakes, or the mistakes of those around you, that turn an interesting unexpected note into a wrong note.

Both Kelley and Kelley (2013, p.10) and Sawyer (2013, p.103) suggest that confidence and self-efficacy are important factors in the ability to be openly creative. A lack of confidence can translate to a lack of commitment in a project, preventing the artist from realising their full potential. This can be for several reasons, notably due to the fact that working on a number of smaller projects creates a lesser sense of failure when one is judged (by themselves or others) to be unrepresentative of the artist's current perceived skill level. However, Cascone (2007, p.396) claims that this mind-set can be preventative, and does not take into consideration the fact that, in the case of art, both failure and the art itself are subjective.

Before creativity can happen, it is necessary to learn to use the basic tools of whichever practice one intends to partake in. Songwriting becomes much easier when one understands how to coax a melody from an instrument, or the theory of how to effectively harmonise that melody idiomatically. A greater understanding of the art's tools leads to a much richer palette from which to choose creative techniques. At the very outset of primary education, children are encouraged to create without judgement, and are given basic creative tools (for example, paper and paint). To allow an individual greater access to the tools to express themselves, the student must be educated in how to

use these tools, but education in how to use something can imply the existence of a wrong way of using it. Once a precedent has been set for the wrong way to use any techniques, the teacher is essentially taking away a number of possibilities for the student. For example, if a child was introduced to a pencil for the first time, and began to use the end with the rubber attached to trace out (albeit invisible) shapes on a page, a teacher might intervene, and show the child that the pencil was most effective when used to draw shapes with the lead. Whilst this is the traditional way to use this particular tool, it instils a mind-set of a right and a wrong way to be creative, which may hinder the pure creativity of the student in another endeavour. The idea of there being a right way to use any creative tool carries the implication that it is possible to be wrong, leading to censoring of one's own work, and ultimately slowing down the creative process and taking away avenues of exploration. Thus the culture surrounding artistic knowledge has an impact on students.

Sylvia (2006) explains that as an artist becomes more experienced with creative practices, they will move towards creating increasingly complex work, and that the expectation to create more complicated work can lead to feelings of inadequacy when creating simpler pieces of art and self-editing in order to ensure that a piece is representative of the creator's perceived skill level. Believing oneself to be of a certain calibre can also discourage exploration of new media, as the artist can become so accustomed to creating work of a certain virtuosic level that revisiting the basics in another medium can seem unwieldy, counterproductive, and ultimately unpleasant. However, over the course of this songwriting experiment, I attempted to exercise my creativity in other avenues including art, poetry, and games design, and felt as though the creative tools I gained through regular songwriting aided all of these endeavours. Perhaps an understanding of these issues assists in reducing the risk of problematizing them. It seems clear from the research consulted that creativity is not entirely innate, and can be developed, or learned, in a number of ways.

Learning Creativity as a Skill

We have seen research that has shown that all people are born with a certain degree of innate capacity for original thought, and the artistic spectrum of creativity can be accessed to some degree by anyone. "Research indicates we are wired from birth, and that creativity is not the preserve of a chosen few." (Barrett, 2006; cited in Burnard, 2013, p.2). To allow someone who perceives themselves as uncreative to learn creative confidence, one must first challenge their preconceptions of inadequacy in the field (Kelley and Kelley, 2013, p.75). In order to successfully train a student's creativity, it is necessary to emphasise a trusting and safe environment in which the student can apply themselves without fear of judgement. Once this is achieved, a number of exercises can be applied to show a student their own creative processes at work, which will in turn allow them to explore and understand their creativity in more ways as the processes become easier and feel more natural.

Keith Sawyer's book *Zig Zag: a Surprising Guide to Greater Creativity* (2013) is full of exercises intended to allow the reader to tap into their creative side. Breaking down the creative process, he identifies eight steps to creativity, and provides exercises for the reader to train each individual building block. Whilst the book is primarily geared towards an understanding of creativity in a problem solving sense, certain steps apply to artistic creativity. The exercises included can be used to train the overall mind-set of creativity, allowing a greater flow of ideas, and a greater quality of ideas, even if the exercises are unrelated to the user's specific field. For example, an exercise suggested in Chapter Six (inspired by Howard-Jones, 2008) requires the reader to write a short story, using three unrelated words, with the intention of stimulating creative thought as the unconscious mind tries to make links between the seemingly random objects. This prompts new and interesting connections leading to a higher volume of creative output, which can prove to the student their own creative potential, increasing confidence, and therefore their ability to practice and train their own creative mind.

Once the initial spark of songwriting inspiration has subsided, it usually falls to the writer to fill in the remainder of the song. It is at this point where creativity becomes largely about putting in the effort required to create a finished song from a brief idea (Gilbert, 2009), and where the songwriting method can be thought of as a problem solving process. Questions relating to the overall style, general structure, and even the ultimate intended purpose of the song must all be asked and answered to ensure a successful and coherent piece, and it is by asking the correct questions (as pointed out in Sawyer, 2013, p.25) that a writer is led to a satisfactory finished product.

Ridley (2010) suggests that the basis of creative thinking can be thought of as creating connections between previously unrelated nodes of thought. Writers may be wary of using ideas that could be construed as having been stolen from another artist, on the grounds that it may cause others to think negatively about their own creativity, or that they somehow lack the ability to create original content. This raises an interesting debate about the morality of accidentally using ideas stored in the unconscious after hearing them in another artist's work. After completing the writing of one of the songs from my portfolio, "16th December 2013 – The Boy Who Was Made of Bees and Other Stories" (which can be found in Appendix 2), I discovered that the guitar part had been plagiarised by mistake from a song written by a friend. I had heard the part and committed it to memory, only to play it myself several weeks later, assuming it was my own. However, it was this guitar part that led to me creating original lyrics and other original content to fit the song.

Whether deliberate or not, using another artist's work as a starting point is an effective way to work towards creating original content, especially as using ideas from established artists can lead to a greater understanding of the art in general. For example, learning to draw by imitating another artist's drawing can be used as an effective method of studying the composition in the artwork, or playing a cover version of another artist's song leading to better understanding of harmonic and melodic structure of one's own ideas, allowing a greater spectrum of creativity and understanding of creative tools in the original content of future works. Using other artist's songs as a basis for the

original inspiration for a song is employed by artists including Tom Waits (who uses lines and concept from nursery rhymes or folk songs, including “Midnight Lullaby” (*Closing Time*, 1973), “Jockey Full of Bourbon” (*Rain Dogs*, 1985), and “Tom Traubert’s Blues” (*Small Change*, 1976) and the Foo Fighters, whose melody for “The Pretender” (2007) was based on the American children’s song “One of These Things is Not Like The Others”, by Joe Raposo and Jon Stone. Another composition is merely one source of inspiration. It is useful to consider how creativity is sparked, and what its source might be.

Where Does Creativity Come From?

Creativity has often in the past been suggested to have been the work of God, or some other similar deity or higher power (Gilbert, 2009). For example, the Greek Muses were goddesses specifically devoted to the task of endowing great thinkers with inspiration. This belief has persisted through the ages, albeit with different core beliefs, and is still recognised in the songwriting community, with various writers including K.D. Lang (Zollo, 2013, p.610) and Elizabeth Gilbert (2009) citing their work as a gift from God, or a talent bestowed upon them by the universe (“the composer speaks, but the voice is not his own: it is the voice of nature” – Cook, 1998, p.32).

Some of these ideals are still widely recognised today in the form of talent or a gift that some people possess while others do not, and while some sources (notably Bob Dylan and Paul Simon, in Paul Zollo’s *Songwriters On Songwriting*, 2003, pp.82, 97) believe that creativity is more powerful and more readily accessible to some than others, research suggests that the potential for creativity is readily and equally available to everyone (Kelley and Kelley, 2013, p.5). Indeed, creativity researcher Gerard Puccio (2012) cites creativity as the very thing that makes us human, our intuition and inventiveness separating us from animals and allowing us, from the evolution of *Homo Habilis* to the modern man, to rise above competition in the natural world by using our imagination to solve problems, create tools, and unite with others of our species towards completing common goals, even if some intelligent animals have been known to use creativity in solving problems (Gardner and Gardner, 1969).

Various theories of the psychology of creativity have attributed the “Eureka!” moment, in which sudden clarity or understanding is achieved, to a number of factors. George F. Kneller puts forward a case in his 1965 book *The Art and Science of Creativity* for the idea that creativity comes primarily from the connection of two previously known, but unrelated, ideas, suggesting that creativity comes from the re-arrangement of existing knowledge:

A familiar case is the metaphor. If I say that an airliner burns like a white dagger in the noonday sky, I am connecting the three ideas, not normally associated, of airliner, dagger, and burn. So as far as I know, this image is original. (Kneller, *The Art and Science of Creativity*, 1965, p.4)

This idea is widely supported in theses by Sawyer (2013, p.76) and Young (2003, p.15), and often informs the founding principles of books which contain exercises and practice regimes for stimulating creativity. The basic idea behind the principle is that, when presented with a problem, an individual draws on a number of facts and connections in their unconscious mind in order to find a solution. The process of unconsciously collecting this information is described by Carson (2010, p.73) as the absorb state. In cases where the solution seems obvious, the nodes may have been previously connected, either by a previous heuristic solution to the problem, or by observation of an implemented similar solution. For example, if the problem was “how do we get to the other side of the river?”, one solution that presents itself is simply to build a bridge. However, this solution could have arisen in the mind of the problem solver through previous exposure to a solution to another iteration of the problem, in this case that bridges are a widely known and used method of crossing a river or road. Such obvious solutions can even stifle creativity, leading to Einstellung effects, an overreliance on preconceived solutions for problems, a term first coined by Luchins (1942). Whilst immediately relying on predetermined solutions for problems can be more time efficient, it leads to rejection of newer and more novel ideas, effectively narrowing the mind-set of creativity. Luchens

(1942) conducted research into which factors can affect the potency of Einstellung effects, including perceived stress at the time of the problem, age, gender, and intelligence. However, these experiments are out-dated, and more recent research has discovered findings inconsistent with previous studies (Lipmann, 1966).

Another model for problem solving behaviour is the heuristic model, in which a participant examines the problem by implementing solutions on a trial and error basis. Although good heuristics will not necessarily yield the most optimal and efficient solution, it tends to produce good solutions in a reasonable amount of time (Foulds, 1983). In problems where problem solving materials are scarce and not reusable, it may not be feasible to use them in a solution which may not turn out to be fully effective, rendering the trial and error nature of heuristics ineffective at these particular kinds of tasks.

Kneller (1965, p.26) suggests that true creativity comes from associationism, the activation of unprecedented mental connections, and that the highest form of creativity involves novel and original ideas. To revisit the river crossing example, solving the problem with Einstellung effects would likely lead to building a bridge, whilst heuristics could lead to a much greater number of more original ideas, possibly including building a boat, raft or catapult, or even digging under the river:

An open mind and the ability to produce a larger volume of ideas have been proven time and again to yield the best solutions to any given problem. (Kelley and Kelley, *Creative Confidence*, 2013, p.74)

In order to be able to generate a high number of potential solutions, the mind must be open to all possibilities and have a wide reservoir of knowledge from which to draw the connections that make up creative thought (Young, 2003, p.42). This wide array of potential starting points for creative connections ensures not only a higher volume of ideas, but also a wider range of ideas, leading to

more potential for creative problem solving. Sawyer (2013, p.64) makes the point of being “T shaped”, meaning aware but specialised. In this analogy the T shape is charted on hypothetical inverted bar chart of range of knowledge against depth of knowledge, with width of the individual’s range of knowledge makes up the top part of the T shape, and the depth of the specific subject based knowledge makes up the stem in the middle. This allows an individual to work within their own specific subject area whilst being able to at any given time draw on experience from other areas of interest to solve a problem which arises in their specialised subject, creating a novel and original solution.

In some cases it is useful to find alternative approaches to problems, for example to think about what caused the problem in the first place. Rather than solving the problem at hand (“how do we cross the river?”), it is possible to address the question as a solution to a different problem (“why do we need to cross the river?”). Using this method, it is possible to detach from the problem, often meaning that the problem never arises at all. Being able to think around a particular predicament, without having to tackle the situation head on, can lead to an increase in the number of potential solutions, and the more this is repeated, the more likely a feasible and practical solution is to present itself. In my experience over the course of the songwriting experiment, this often offers the possibility to avoid the original problem altogether.

To use an example in a pop songwriting or composition context, the problem could be a section that builds up tension to such a great degree that no drop or following section sounds sufficiently powerful to follow the build-up. It would appear at first glance that the problem in this context is figuring out how to write the succeeding section to sound effective as a drop or climax point. A more effective solution might be to alter the preceding section or build-up, perhaps making it slightly less tense, so as to ensure the desired effect when the climactic section arrives. This could also be achieved by taking energy away from the section before the build-up, allowing the resulting drop to sound more effective in relation to its surroundings. This idea is often used in modern dance music,

gradually reducing the amount of bass in a mix over the course of a build-up, allowing it to re-enter at full volume to create a perceived increase in bass without affecting the mix structure.

In the physical law of conservation of energy, it is impossible to create something out of nothing, and ideas are not exempt from this rule, they all have a context (Ferguson, 2012). According to Kneller (1965, p.4), ideas are comprised entirely of smaller sections and borrowed inspiration from other ideas, which make connections in the unconscious mind. Eventually, when the unconscious mind has finished working on the idea, the idea often appears to spring, fully formed, into the mind of the thinker, in a “sudden, blink-like moment of clarity” (Johnson, 2010). This could explain the famous examples of Archimedes’ “Eureka!” moment, or that of Newton sitting beneath the apple tree. The discovery in the case of the latter was the result of several years’ work on Newton’s part, during which the connections between mass and interactions of massive objects were being forged in his unconscious mind. Upon realising that the apple was pulled down toward the earth, the final piece of the puzzle was added, and he was able to complete his theory of gravity. This moment could not have happened without his years of study and extensive knowledge of the physical properties of the universe around him.

Some researchers subscribe to the belief that the nature of creativity makes it immeasurable and untraceable and that it cannot, by its very nature, ever be fully understood, including Kneller (1965, p.16), although books such as the aforementioned *Zig Zag* (Sawyer, 2013) and others (Edwards, 1980; Robinson, 2011; Sloane, 2010) claim to understand the nature and workings of creativity in the human mind, setting down steps that the reader can follow to produce more creative thought. While it may seem as though following a pre-ordained set of guidelines is unlikely to result in good quality original work, these practices are documented to have given rise to successful songs, including The Gorillaz’ “Clint Eastwood” (2001) in which rapper Del the Funky Homosapien claims to have followed instructions from a book entitled *The Manual: How To Have a Number One the Easy Way* (Cauty and Drummond, 1998). The song reached number one in Spain and Italy (Hung, 2014), and was the

Gorillaz' most successful hit until the release of "Feel Good Inc" in 2005. The book explains how the two members of KLF achieved a number one and invites readers to follow this formula. They suggest stealing ideas from other songs, and went on to utilise sampling to a great extent. "Bring me Edelweiss" by Edelweiss (1988) also used techniques suggested by this book.

Problem solving is reliant on the production of solutions and is a useful term to explore when considering creativity. The problem for songwriters is usually the same, that of how to write a song. As well as approaches drawn from a wide range of sources, there are solutions more specifically relevant to songwriting.

Using Varied Creative Techniques in Songwriting

Donovan (2012, p.4) explains that a common practice in learning creative writing is to first break down the blocks that keep us from producing ideas. These come in many forms, notably the aforementioned self-editing and a lack of creative confidence. An exercise to achieve this that is common within creative writing is simply to write whatever comes to mind for a certain length of time, with the objective being to create an uninterrupted stream of consciousness on the page, with no impulses being edited or repressed during the course of the writing. Research by Proulx and Heine (2009) has also suggested that activities such as reading surreal literature can temporarily stimulate the ability to recognise patterns, and therefore help to make connections between existing unconscious knowledge, improving creativity.

In terms of creative processes in product design, *Creative Confidence* (Kelley and Kelley, 2013, pp.131-132) outlines a number of concepts and theories developed and taught by the d.school including ideas such as human centred design and iterative prototyping. These ideas have both proven effective in practical design creativity as a method of inspiring original ideas and products. Can these ideas, then, be equally effectively modified and utilised as tools to explore creative songwriting?

Human centred design is an interesting concept to begin with, when thinking about cross pollinating the idea with songwriting. The phrase implies a certain amount of thought given to the practical and emotional needs of the end user. In product design this could be as simple as striving to empathise as closely as possible with a target demographic to identify problems in a current system in order to create a unique and original new system that more accurately attends to the needs of the client. In a musical setting, this could be achieved by carrying out research before the song is written, in order to discover what the audience thinks are the positive and negative aspects of the music to which they listen. Christgau (George, 2003, p.xviii) believes that the music industry, particularly in the case of pop music, is often run as a machine geared towards selling as many records as possible, although the downside to this approach is that the resulting product can be seen as soulless and manufactured, and often drives a number of people away.

Iterative prototyping is the concept of coming up with an idea using a vague and unrefined starting point, unintended to reflect the quality of the final idea, and through various stages this prototype idea is then moulded to meet the needs of the end user or client (Kelley and Kelley, 2013). This technique can be particularly effective because it requires the product to be tested in context a number of times, each time highlighting a new improvement to make to the product, in theory creating a much more user friendly product as an end result. The idea of iterative prototyping can be applicable to songwriting. For example, a technique suggested in Cauty and Drummond (1998) involves writing a single hook as a starting point and then expanding on it, before returning to the hook and starting from scratch with a different kind of idea. As useful as this process is however, a certain amount of qualitative work must be introduced in order to finalise the songs as a consumable product. Taking this into account, songwriting can be split into two main sections, inspiration and skill.

In this instance, creativity is the initial spark of imagination that ignites an idea. This basic idea can come in many forms and often contains only a shadow of the potential of the finished piece. As

discussed in detail previously, the ability to create these original thoughts is inherent in almost everyone from an extremely young age. This impulse can also be trained and refined to make it more efficient and dynamic, to the point of having ideas at will (Kelley and Kelley, 2013, p.75). The second half of the songwriting process is the ability to take a simple idea and apply processes to it in such a way that it grows into a finished product (Lee, 2013). This part of the process is taught more often, as it relies on a much more tangible skill set, usually involving knowledge of theory and experience.

Songwriting as Problem Solving

Eysenck (1990, p.432) explains that research into the cognitive psychology of problem solving divides problems into two different categories, well-defined and ill-defined problems. The category of a problem is decided by whether or not there is an objective correct solution available to the problem. Well defined problems are much easier to measure quantitatively due to the examiner being able to identify more readily when a correct solution has been found. Much less research has been done into the ability to solve ill-defined problems, which by their nature do not necessarily have a single correct solution. These problems are often more relevant to everyday situations, and measurement may only be feasible qualitatively.

Because of the subjective nature of songwriting, its problem solving aspect can be thought of as an ill-defined problem with no correct solution. Problems can also be defined by the amount of prior knowledge required to solve them, and this creates an interesting subjective standard in songwriting, especially when looking at different writers' styles and whether they believe it to be necessary to have an in depth knowledge of music theory (Zollo, 2003, p.113). Strategies for problem solving are often categorised into divergent and convergent thinking.

Convergent thinking is thinking towards a certain solution, attempting to find the way from A to B, where A is the problem and B is the single correct answer. However, this approach is more effectively used to find solutions to well defined problems. Sawyer (2013 p.133) argues that a more beneficial

approach is to tackle problems with divergent thinking, thinking outwards from the problem and attempting to find as many outcomes as possible. This approach is useful when addressing creative thinking, and can produce a number of potential solutions for a problem using a number of possible methods, often leading to a range of solutions (Kelley and Kelley, 2013, p.79). Creativity researcher Ken Robinson (2010) argues that the majority of western education systems teach children purely to think convergently (for example, to find the single correct answer to a maths problem used the single defined method given), and therefore discourage children from exploring their own more creative ways of solving problems, and as discussed earlier, this can have long term effects on the self-perception of creativity. A key problem for songwriters is the avoidance of writer's block, and how to come up with new songs on a regular basis. This problem can be phrased as asking the question "how can one write a new song?" This latter question requires repeated different solutions, rather than a single authoritative solution, thus approaches such as divergent thinking appear to be potentially beneficial to songwriters.

In *Songwriters On Songwriting* (2003), Paul Zollo interviews a number of highly regarded musicians and lyricists in order to examine their methods, routines, and ideas related to the subject of creativity and songwriting. The range of views expressed over the course of the book is vast, and covers a large number of topics, from sources of inspiration, to their opinions on their back catalogue and those of others. Reading this text inspired me to attempt to evaluate the techniques championed by the professionals interviewed over the course of the book, by writing using many of the different viewpoints and techniques discussed as starting points, with a view toward improving my own songwriting ability. Using the idea of iterative prototyping (Brown and Katz, 2009, p.64) as a starting point, I decided to attempt to write a piece of music every day, and observe the effects of this on the quality of the songs written over time. This was in order to observe whether the frequency of songwriting would act as regular practice for my creativity, therefore improving it in the same way that practice on an instrument can improve one's proficiency at it. In order to avoid focussing only on a quantitative approach to songwriting, I also decided to revisit the better demos

and spend time working on the ones with more potential (in my opinion), in order to shape them qualitatively into finished products, and showcase these on a full length album containing 10 to 15 songs in varying styles (see Appendix 1). I would also document this process autoethnographically in order to avoid an overreliance on memory when observing the effects of the experiment on myself when making my conclusions (Ellis, 2004, p.2).

Writing as a daily routine has been championed by artists such as Randy Newmann and Carole King (Zollo, 2003, p.141 and 265 respectively). A number of writers working for companies such as Motown Records also had success with routine writing, with Motown being responsible for nearly 200 number ones since it was formed in 1959. (“The most impressive and enduring body of pure pop that rock’n’roll will ever produce” – George, 2003, p.xix). I have found that songwriting on a daily basis has had many benefits. Firstly, creating material in such bulk is statistically more likely to yield more useable ideas that have potential to grow into better songs; it provides more options to choose from, and secondly, because as in any other skill, regular practice of songwriting hones the practitioners proficiency. It has increased the quality of the ideas that have been created. In addition, having to not only write, perform, record and mix my songs every day has further benefits; it has given me a routine of practice for playing guitar, bass, drums, piano, vocals, and any other instrument that I use, improving my performance abilities, something that facilitates the development of musical ideas (Zollo, 2003, p.679). The production of a regular supply of material in a myriad of styles has allowed me to practice my production skills in mixing and mastering. In this respect, songwriting, when coupled with recording and production, can be seen as a general all inclusive workout of how an artist understands their musical surroundings. Indeed, songwriting cannot be entirely separated from performance especially since the text of popular music lies mostly within a recording (rather than a score, for example) and thus performance and production abilities are part of the creation of the final item, and fundamentally linked to songwriting.

The idea of a creative muscle is certainly an interesting one. Several songwriters interviewed in Paul Zollo's *Songwriters On Songwriting* (2003) believe routine practice to be an important factor in their success, and the idea of training one's creativity in the same way one would train a muscle does have precedent (Kelley, 2012). My experiment aiming to explore whether regular songwriting had positive effects on creativity, quickly bore fruit.

During this part of my research (between the 1st August 2013 and the 31st April 2014) I wrote over 170 pieces, in genres ranging from typically acoustic styles such as folk, contemporary classical, and samba, to digital and electric ones, including zero input noise, dubstep/chipcore, and djent metal ("a subgenre of progressive heavy metal", Thompson, 2011), and recorded demos of 100 of these, keeping a short record of the processes I used to inspire and create them. The songs can be accessed on the attached Data CD (Appendix 2), or online at <https://soundcloud.com/rob-rideout-music>, accompanied by short notes detailing the writing process for each piece.

I found that throughout the experiment, I had several different experiences of the songwriting process. Many times the song would come easily and intuitively, and I would feel as though I was simply following the music was logically going after the initial idea, but other times I would struggle to produce anything at all. In all the cases I found that in the very beginning (this often consisted of picking up an instrument and improvising) some ideas came extremely easily, but during certain days on which the ideas were not as original or exciting as others, I would often deem the idea to be unworthy of being the starting point for a song and look elsewhere. Once the initial idea had been written, the conscious desire to write towards a certain goal became apparent, and therefore on days where I had a focussed desire to create a specific genre or type of music, I found the process easier than if I simply had to form the idea into a full song with no idea of the direction in which it should go.

It quickly became apparent that the quality of the initial idea has less of an effect on the overall quality of the final song that I had originally anticipated. A good example of this was in the song "9th

October 2013 – Climbing up that Hill”, which was my first day of regular writing where I felt entirely stuck for ideas. In response to this, after trying many different ideas, I resolved to return to the first simple idea I had come up with, which was a muted pattern on a single note. Upon layering some guitars over this original idea the parts became more and more melodic and eventually I began to write lyrics and a vocal melody to be placed over the top of this simple guitar part. The song grew in its complexity with each part taking inspiration from another and within a short space of time I had written a complete song which is, in retrospect, one of my overall favourites from the project.

The initial spark of inspiration often also came from existing songs or artists. The desire to create a song arose from a number of sources, but as mentioned above, being inspired by existing songs often provided a focussed desire to my work, rather than a plan to simply create something for the sake of creating. Popular music is often written in a specific genre. Hearing a particularly outstanding folk song often prompted in me a desire to create similar music, and analysing the music (even if unconsciously) gave insight into how to improve my existing stylistic authenticity, or even into how to improve a specific piece that was being worked on at the time. I found that this inspiration unlocked mental connections, which led to the solution of long toiled upon problems, in turn giving rise to higher quality work in future endeavours.

An example occurred during this experiment whilst listening to the lyrics of songwriters Randy Newman and Tom Lehrer, which contain a level of skill with words I thought myself unable to achieve. It occurred to me that this might be because for the majority of the songs I had written, I added the lyrics at the last moment, giving them limited attention, due to having more confidence with the musical (non-lyrical) parts of the song. Following this realisation, I was able to attend to the problem by spending time working specifically on lyrics, keeping the harmony and structure of the song simple, leading to songs such as “Only You” and “Superheroes”, where the arrangement is sparse (the demo of “Only You”, contains just vocals and an acoustic guitar), and the chords are plain, in comparison to the complex harmonic structure in a song such as “Love At First Light”. I

applied specific lyrical techniques, learned by overt study, inspired by my craftsman like, regular approach to songwriting. By using evocative and more specific language, I was able to create a sound that felt more sincere, which seemed more striking than the original vague style of lyrics that I had previously used. For example:

The trees we used to climb have all been cut down long ago / except the sycamore, which fell down in the storm / The wheels on your old blue bike have rusted brown and grey / and the pedals cannot move them anymore (Expt. from "Superheroes", Appendix 1, Track 5)

I use specific language, using "sycamore" whereas in the past I would have instead written "tree", as suggested by Randy Newmann in *Songwriters On Songwriting* (2003, p.141), and stronger evocative language, adding the phrase "your old blue bike", as, for me, bikes are associated strongly with childhood. As a result I was able to create a character portrayal that seemed deeper and more compelling, even when I was not writing from personal experience.

Songwriters often use the phrase "write what you know" (Zollo, 2003, p.141). Evoking such personal memories made the lyrics stronger, conjuring up specific images and feelings, and allowing the words to project these feelings more adequately and completely into the song. Moore (2002) claims that having been in a situation gives a more complete picture than simply imagining it. I have found that this allows the writer to include often overlooked things, such as smells, or more abstract feelings, and the inclusion of these details in lyrics helps the listener to project themselves into the song. When listening to a song, I find that without deliberate effort I can only immerse themselves in the lyrics to the degree that the writer was prepared to immerse themselves in creating it. This idea is also expressed in Amy Tan's 2008 TED talk *Where Does Creativity Hide?* (Tan, 2008).

Even when not deliberately using an immersive storyline, details can be extremely important (Wood, 2013, p.48). I have found that the overall mood of a song can be changed hugely by a subtle shift in

language. The lyrics to “Only You” are primarily dependent on imagery, rather than explaining feelings:

Grow little acorn, someday you will be / A towering tall mighty oak tree / and when it rains, I'll stand underneath your canopy / And you can shelter me (Expt. From “Only You”, Appendix 1, Track 2)

The use of natural sounding and evocative words such as “acorn”, “mighty oak”, “rain”, “canopy”, and “shelter”, all come together to give an overall feeling of an organic mood, which matches with the simple nature of the chords beneath. The overarching theme of the song uses nature as a metaphor for human emotions, which ties in strongly with the folk aesthetic of the song as a whole. This intrinsic link between the lyrics and music seemed very effective, and was why I chose this song to be selected for further development for the final CD.

After selecting all of the songs for the finished CD, I revisited the lyrics to some songs. I found in general that these songs, picked out largely for their musical qualities often also contained what I believe to be strong lyrical content. This seemed interesting because I often considered lyrics to be the weakest link in my songwriting. It seems as though the songs with stronger lyrics lent themselves to more confident performances, and I found that this confidence often produced more effective vocal melodies, and these melodies allowed songs to stand out as higher quality pieces of work than songs in which the melodies were less prominent, due to a lack of surety in the lyrics. Melody has been championed as the most important part of a song by artists interviewed in *Songwriters On Songwriting* (“no one whistles a lyric.” Burt Bacharach in Zollo, 2013, p.202) and my experience in writing has verified this. The songs whose quality I perceived to be the highest were those that possessed a strong melody.

Some of my favourite melodies present on the album are those in songs such as “Only You” and “Superheroes”, and I feel that this came about because of the strength of the lyrics. Other songs such as “Waves” and “Last Call” are reliant almost entirely on vocal performance due to the minimal arrangement of the songs. The song “Waves” contains some of the most personal lyrics written during the course of the project, a rare occasion on which I was writing from personal experience, and for this reason I felt as though the lyrics should be more prominent in the finished song. To this end, I chose to keep the arrangement in the final recorded version as bare as possible, so as to capture the raw nature of the song.

I found that listening to a song a number of times made it difficult for me to make to make changes to some lyrics. For example: “but I just failed to see today what could be done” from “Once More With Feeling” (Appendix 1, Track 6) seemed like a particularly weak lyric, due to the way it stretches over a bar line, sounding strained. However, certain lyrics which I originally doubted the potential of became an intrinsic part of the song to me after repeated listens, such as the above example from “Once More With Feeling”. For this reason, many of the lyrics on the finished album remain changed very little from the demos. There are certain exceptions, including the second verse of “Roots” (Appendix 1, Track 9), in which the lyrics were changed from “I saw the signs and felt nothing but hatred. A cry, a universal sigh, distraught and frustrated” to “I saw the signs and did nothing but waited. A cry, a universal sigh, from all I created”. This was partly due to the timbre of the singer’s voice, which sounded less pleasant when making the “tr” sound present in the words “hatred”, “frustrated”, and “distraught”.

Upon review of the lyrics, I found that a number of them had been written for the sound of the words and how they fit into the rhythm and melody of the song, rather than the meaning of the words. This was present in “Crows”, where the nature of how the song was written (in the Bad Idea Band) meant that the lyrics were rushed. In particular the line “Serve your sentences in silence, singing like a crow”, was written to use as much alliteration as possible, but contradicts itself with

“silence” and “singing”. A more prominent example of this is evident throughout the lyrics of “4th February 2014 – One More Song”, a demo featured on Appendix 2:

Every single sound is twisted, If not the noise the rest existed
systems of assisted words and ceasing and desisting verbs
a shot to wait to contemplate some sort of great by sport and slate
a short but sweet encounter with a pseudo cyber nanny state
say what you will, but say it with style, stars and stripes and stats and smiles
and sullen bribes and tribes in certain kinds of small but mighty minds
surprise I find can shine aloud, astound and stop the shaking shroud
while cities structured on the shade will claim a shock when stories fade (“4th February 2014 – One Last Song”, Appendix 2)

In this example (and the subsequent verses) the idea of using words for their sound, rather than their meaning, is strongly prominent. I found that the recurrent theme of using “s” sounds ensures a certain timbre to the vocals which lends itself well to the acoustic rap style that this song was written for. As well as their sounds, the words are picked to ensure that each line is iambic, with a constant pattern of an accented syllable followed by an unaccented syllable followed again by accented syllable. Overall I found this approach difficult but effective, but decided against selecting this particular track for the final CD due to the nonsensical nature of the lyrics.

In order to make up a final running order for the CD, I needed to select between 10 and 16 demo tracks to re-arrange and record. To do this, I made a list of all of the complete songs which I considered to show potential. Of the 100 demo recordings I shortlisted 31 tracks for further examination. These tracks were as follows:

"28th August 2013 – Only You"
"6th September 2013 – Eden"
"3rd October 2013 – Rosanna"
"5th October 2013 – Once More with Feeling"
"8th October 2013 – Overdose"
"9th October 2013 – Climbing Up That Hill"
"15th October 2013 – Broke"
"18th October 2013 – Waves"
"21st October 2013 – Kingdom of the Damned"
"23rd October 2013 – Love at First Light"
"30th October 2013 – Holidays to Vegas"
"1st November 2013 – Runaway"
"4th November 2013 – Sunshine"
"13th November 2013 – Superheroes"
"29th November 2013 – Here I go Again"
"4th December 2013 – Jinn"
"17th December 2013 – Castle in the Sky"
"20th December 2013 – Last Call"
"3rd January 2014 – Cannibalise and Reconfigure"
"14th January 2014 – Millipede"
"3rd February 2014 – Roots"
"4th February 2014 – One Last Song"
"17th February 2014 – 505"
"18th February 2014 – Can't Quite Read Your Mind"
"27th February 2014 – Let It Go Feat. Fran Wheeldon"
"Bad Idea Band – Home"
"Bad Idea Band – Disasterproof"
"Bad Idea Band – Crows"
"26th March 2014 – Somewhere Else"
"8th April 2014 – Don't Leave Me Alone with Her"
"15th April 2014 – Because I Love Her"

When shortlisting titles to be included on the final album, though some electronic songs were considered ("3rd January 2014 – Cannibalise and Reconfigure" and "14th January 2014 – Millipede"), they were eventually dropped due to my relative lack of knowledge in electronic music production, as I felt that I would be unable to re-record the songs to a standard high enough for me to put alongside the rest.

Some songs, such as "Only You" and "Superheroes" were chosen for their lyrical content, whilst others including "Kingdom of the Damned", "Love at First Light" and "Runaway" were chosen to showcase the range of genres and moods in which songs had been written over the course of the experiment. "Once More with Feeling" and "505" were included due to the relative difficulties of the genres in which they were written, and "Roots" and "Rosanna" were chosen to display orchestral

arrangement in popular music styles. Since I wanted to include at least one song written collaboratively, I chose "Crows" as it also contains interest in the form of odd time signatures in heavy metal music. As well as this, I opted to include songs with minimal arrangement which focussed heavily on vocal performance, including "Waves" and "Last Call", and songs with potential for arrangement in a band context, which lead me to select "Can't Quite Read Your Mind". Finally, I chose two songs of contrasting moods to widen the array of styles found on the album: "Overdose", and "Because I Love Her".

Beating Writer's Block

The idea of writer's block has often been romanticised (Sawyer, 2013, p.54), and this has led to a perception that it is an inevitable part of songwriting. Over the course of the experiment, I have dealt with a lack of inspiration in many ways, with varying degrees of success. I found that periods of writer's block often coincided with changes of mood, leading me to suspect that writer's block often comes from the same mental state as self-editing (as explained in Kelley and Kelley, 2013). A feeling of being in a rut strongly affected my self-confidence, causing me to judge my work harshly, and ultimately unconsciously sabotage my productivity. Various methods of overcoming creative blocks are expressed in a number of studies (Leung et al, 2011; Schaefer et al, 2010), such as encouraging sufferers to engage in physical activities, which coincide with supposed methods of boosting mood or attaining a more stable and healthy mental state (Blumenthal et al, 1999; Dimeo et al, 2001). When I felt an inability to create to a perceived adequate standard, this further increased this drop in self-confidence, which caused the problem to worsen, effectively neutralising my creative potential. Some evidence suggests that depression and mental illness can be linked with high quality creative output (Tan, 2008; Gilbert, 2009), but my experience was that a positive mood and good physical health helped me work. I found that mood and creativity were closely tied together and affected one another in complex ways, and that negative cycles related to both could be escaped by the use of a number of exercises.

Humour was a powerful tool in allowing me to overcome the self-efficacy issues related to creating work that was perceived either by myself or others as being of poor quality. A large number of songs written in periods where I found it more difficult to write were light-hearted in nature, and intended to make the songwriting process more enjoyable. A prominent example of this was “18th November 2013 – Flamingo”, in which the lyrics detailed my thoughts at the time of writing:

I’m not in the mood to write a song today, so this could get pretty weird, I’ve got a blocked nose, so my voice sounds terrible. (“18th November 2013 – Flamingo”, Appendix 2)

I found songs such as these to be effective in overcoming confidence issues, as the songwriting process often became strenuous after long periods, and writing more light-hearted songs enabled me to enjoy the process and ultimately improved my mood, thereby increasing my willingness to work and the quantity and quality of my songs.

As an exercise in overcoming writer’s block, I attempted writing smaller pieces (as inspired by Csikszentmihalyi; cited by Sawyer, 2013, p.162; and also Kelley and Kelley, 2013, p.23) and found that the amount of pressure to create was considerably lighter when working on several small projects. These included the lines of short verses of lyrics, simple riffs or chord progressions, and melodies to existing lyrics rather than attempting to write an entire fully formed song from scratch. This allowed me to explore ideas without feeling overly committed to any one of them, ensuring that I was free to experiment with my own creative ideas without affecting any larger project which I felt deserved a higher level of concentration and commitment. Many examples of this in my portfolio (notably “24th February 2014 – Finding One”, “4th April 2014 – Because 27”, and “31st October 2013 – Playing in 21 is Scary”, all found in Appendix 2) came simply from exploring guitar based riff ideas in odd time signatures, allowing me to explore the nature of odd time signatures without having to worry about contextualising them until I was comfortable with the way they felt as standalone ideas. The

confidence boost gained from small periods of implementing this idea often allowed me to continue being creative through difficult periods in which I might otherwise have not felt able to write at all.

Another method I found useful for bypassing the negative impact of overly self-editing was through writing with another person. The atmosphere of creativity when shared between two or more people can often lead to interesting new ideas, as both are able to take and manipulate ideas from another party, and the mutual effort put into such a project produced moments of immersion and flow, in which ideas came more easily, and were more frequently produced (Csikszentmihalyi, 1990), helping to overcome the self-confidence issues related to writer's block. Notable examples of this from my portfolio include "7th February 2014 – Fight For This Quest Feat. Vickie Harley" and also "27th February 2014 – Let It Go Feat. Fran Wheeldon". In both of these examples, the songs were co-written with other musicians, and in both cases I found that the experience led to easier creativity.

However, in this situation, it is important that all parties are open to criticism, so as to allow the ideas to grow without being constrained by a single vision. Collaborative writing such as this requires self-confidence in each writer, confidence in the co-author(s), and close, trusting, good relationships. It requires the individual to give up individual ownership of the piece and share it with the other person involved. It involves a feeling of risk, but I found it to be of great value. It is interesting to note that many of those who have been famous over long periods as songwriters have been part of songwriting teams, whether at hit factories such as Motown or the Brill Building, or in individual partnerships, such as Goffin and King, Lennon and McCartney, and Lieber and Stoller. Due to the time consuming nature of this particular project, it was unfeasible to work with another writer long term, although the benefits of sharing the creative burden have been apparent to me when writing either with a featured artist or in a band environment.

I found that writer's block often only seemed to set in when attempting to create with overfamiliar tools. When writing guitar based music for an extended period of time, it was not uncommon for me to feel as though I had exhausted the creative potential of the instrument. In these cases, I moved to

writing on other instruments. In particular, moving away from guitar based music in general seemed to do a great amount for my musical creativity. This can be seen over the course of the month of January in particular, where out of 15 songs written in total; only four were written in genres in which I consider myself comfortable. Indeed, I enjoyed writing electronic music so much (“2nd January 2013 – Level 9999”, “3rd January 2014 – Cannibalise and Reconfigure”, “14th January 2014 – Millipede”, “15th January 2014 – Believe In Me”, “16th January 2014 – Polydimensional Affairs”, and “29th January 2014 – Cake for Breakfast”) that at the end of the month I attempted to take an extreme example of a guitar based genre (in this case the band responsible for the original song refers to themselves as “extreme power metal”, Li, 2002), and arrange the song to be entirely electronic. The result was “Through the Drums and the Bass (Dragonforce Cover)”, which attracted nearly 300% more media attention than the average song in listens from that week (23rd to the 30th January, up from an average of 30 views on Soundcloud to 118). I also briefly explored orchestral music during this period (“23rd January 2014 – Dawn”, and “24th January 2014 – Orchestral Build”), and whilst neither of these songs were particularly successful on their own, the arrangement skills I gained from writing them helped me in writing and arranging the orchestral parts for “Roots” (Appendix 1, Track 9), which was part of what I feel makes the song stand out from those around it.

Another way I attempted of finding my way around writer’s block was simply to not write altogether. It occurred to me that since all of my research pointed out the importance of time to allowed the unconscious mind to make connections, it could be conducive to my writing to simply take short breaks occasionally (“there’s no creativity without down time”, Sawyer, 2013, p.112). Overall, I found this method effective, but found myself impatient and frustrated at simply waiting and not making a conscious effort to write. In review, I established that this can indeed be an effective method to overcome writer’s block, but I found that it clashed with my personal writing style, and was not as effective in my case as it could potentially be for other artists.

Several songwriters interviewed in *Songwriters On Songwriting* claim that routine is important in writing. For this reason, I chose to adhere to a set time and place to write every day. My routine was more often than not to start early in the morning, and I found that after a few weeks I would be thinking of potential ideas as soon as I woke up, which meant that by the time I got started with recording the songs, I already had a vague idea of what the song should sound like in my head. I also experimented with using different initial ideas from which to develop the song. The order was rarely uniform, sometimes starting with lyrics and writing the rest of the song from there, and sometimes starting with a melody (or in the more pop and rock based ideas, a riff), or chord progression. The rest of the process often involved trying to imagine the rest of the song around it (as suggested by artists such as Burt Bacharach in *Songwriters On Songwriting*), or recording bits or pieces until the form and style of the song began to take shape. Often, I would fully record and produce a section of a song, then start from scratch on the next section, although this often led to clunky transitions between the sections such as the transitions in the song “10th June 2013 – Definitely Not a Daft Punk Ripoff”, which I felt had strong potential in the verse, but a generic and poor quality chorus.

I found that the overall style of the song depended on the first idea as many of the lyric based songs evolved into more vocal oriented styles, such as folk (one example of this is “4th February 2014 – One Last Song”), and instrumental and rhythmic ideas lead to styles which are much less reliant on complex lyrics, such as pop and rock. An example of this is “I Fell in Love with a Girl” (Appendix 1, Track 12), which was written beginning with the drums. The energy of the song relies heavily on the rhythm given by the drums, with the guitar and bass parts following the kick and snare drum parts in octaves for the verse. For this reason, I chose to omit the bass solo on the demo from the final recorded piece in favour of a short drum solo, which I feel fits into the piece more smoothly.

In conclusion, I found that there are a number of effective ways of negotiating writer’s block without resorting to stopping the conscious creative process altogether. Whilst some of these techniques were more effective than others (in my case collaborative writing and moving away from well-known

styles), I can deduce from my experience that these may work differently depending on an artist's writing style, though an effective way is to address the root cause of the self-efficacy issues which cause writer's block in the first place.

The Bad Idea Band

Since the majority of my songwriting has been unaided by others, I decided to investigate the impact of collaborating with others on creative projects in a similar timeframe to that which I allotted myself in writing songs for this experiment watching bands perform live over the course of the past few years has often prompted a feeling of jealousy, wishing that I had the chance to perform live in a similar capacity, but due to various other projects taking up my time, I felt as though I would not have time to put together a band that would be able to consistently practice and perform. This envy inspired an idea. After talking to various people who also attended such concerts, I found a large number of musicians not currently performing in a bands who cited a lack of free time as their main reason for not playing live with a band, and this made me wonder about whether it was possible to create a project which only required the necessary time and effort to be applied over a short period.

I had access to musicians able to hold their own in a band setting reasonably confidently, with the skills to improvise and write parts quickly to complement others. It was my intention to gather together a group of individuals with these skills who would be capable of collaborating in such a way as to create songs in a short period of time, to a standard which could be feasibly performed live. Just as I had written songs individually in a short time frame on a regular basis, I wanted to explore activities that would allow me to practice songwriting and performance, but with a collaborative, rather than individual, approach. I wanted to explore how to answer the question of whether individual creativity could be improved by utilising the added creativity boost given by working with another songwriter or other songwriters.

I eventually refined the idea into what became known ironically as the Bad Idea Band. This name emerged due to the general feel of the first few practices and was intended to be an ironic statement of the ambitiousness of the band, despite the fact that everyone involved in the band believed the project to be a good idea. I also liked the alliteration and attention grabbing nature of the name. The premise was simply to write, rehearse and perform a short set of material for a concert, roughly five songs' worth of material, in just 12 hours. The timeframe I eventually settled on involved two hours of practice a day for six days, and to perform the completed set on the seventh day. In the first five days a new song would be written on each day (using no pre-existing ideas, meaning that everything had to be created purely in the two hours in which we were writing), and on the sixth day we would spend our two hours of time rehearsing and refining the songs which we had written. Once the set had been performed, the band would break up, allowing people to return to their normal schedules having written and performed a 30 minute set of five original songs live over the course of 12 hours. One of the songs written with the first Bad Idea Band, "Crows", has been re-recorded as one of the final pieces on the album. This piece was the fourth piece written with the band out of a total five, and the one I considered the most enjoyable to write and play. The changes in time signature presented a specific challenge to navigate with minimal rehearsal, and two members of the band were unfamiliar with quintuple timing at the outset of the writing process, but both adapted very well to the situation. Due to the band disbanding after we had played our concert, the re-arranged and recorded version present on the final album was arranged and played almost entirely by me, except the drums, which were played by one of the two drummers whom I used to record the rest of the album tracks. Three of the remaining four of these tracks can be found in demo form on Appendix 2, as "Bad Idea Band – Home", "Bad Idea Band – Disasterproof", and "Bad Idea Band – Bad Idea". The final track, "Friendly Romanian Song", was never recorded as it relied too heavily on improvisation and performance.

Through the University of Huddersfield I became involved with Collabhub (collabhub.org), an organisation that was run by tutor Dr Elizabeth Dobson that encourages and incubates

multidisciplinary collaboration. Because of the nature of Collabhub's beginnings, it contains a large number of musicians and artists, and I decided to use this as my primary demographic for pitching my idea. Pitching the idea to the members of Collabhub raised a good amount of interest in the project, and it was through this that I attracted the first two members of the Bad Idea Band. After putting an advertisement out explaining my intentions on social media, I immediately received a lot of interested participants. In a small way, the advert went viral, attracting support and attention from all around northwest England (and even one email from a musician in Sweden, asking for my permission to use the idea in his area). Through this I recruited the rest of the members of the band, and set about organising the final performance. This incarnation of the band consisted of myself (bass, keyboard, and vocals), Daniel Walters (guitar and vocals), Andrei Calinescu (lead guitar), and Colin Mawdsley (drums).

The set was to be performed at Bar 1:22 in Huddersfield on the 21st March, with the Bad Idea Band supporting two other bands in a local showcase. This ensured a certain amount of pressure as the audience members drawn by the other (much more thoroughly rehearsed) bands would be expecting a polished result. Once the performance was organised, the rehearsals were arranged in the week leading up to it. Certain pre-existing commitments meant that some band members had to miss occasional writing and rehearsing sessions, but a good amount of online communication ensured that on the final day of rehearsal, everyone was well informed and able to write and play their parts. The writing in this first manifestation of the Bad Idea Band was often based on writing riffs and instrumental parts first, then organising them into a structure, only when the music was completed would we begin work on the lyrics. This often led to us running out of time and rushing a great deal of the lyrical content, which I believe was evident in many of the final songs. However, because of the background of the musicians involved, the genres often stayed within rock and metal, and therefore the lyrics were perceived to be less important in this case than if we were playing in more vocal oriented styles.

The final performance of the material from the first incarnation of the Bad Idea Band was very effective. The impromptu nature of the band meant that communication was very important and this ensured a level of onstage chemistry and excitement often missing from well-rehearsed bands. The success of the idea and performance prompted more musicians to inquire about the project, which led to the Bad Idea Band V2 being formed a few months later.

For the second incarnation of the band, I had a slightly more specific brief (as described below), which has been shown both to aid creativity (Sawyer, 2013, p.117), and hinder it (Reverberi, Toraldo, D'Agostini & Skrap, 2005). In the case of Reverberi et al's research, this was due to participants focussing on the wrong section of the problem after feeling as though some work had been done for them by narrowing the field of potential solutions available. In the former example, Sawyer (2013, p.117) claims that creativity can be improved by certain constraints as it gives a greater feeling of play whilst creating, allowing me to explore many small avenues of creativity in order to increase my proficiency in each of them:

Successful creators are playful and inquisitive. When you live your life with a playful attitude, you develop an instinct to spend five minutes here and there mastering tiny boxes— just like children at play learn everything about how marbles roll on different carpet textures, or how a Slinky travels down the stairs. Before you know it, you're an expert in hundreds of tiny boxes. And that's when good things start to happen unexpectedly— because good ideas come from blending lots of different tiny boxes. (Sawyer, 2013, p.125)

For this reason, I was excited to see the effect it had on the resulting creative output compared to the performance of the first iteration of the band. We were asked to play at the Collabhub Symposium, an event showcasing and celebrating multidisciplinary collaboration held at Huddersfield University.

Due to the nature and location of the event, the band could not be amplified, which led to a more specific choice of instruments that would be audible without amplification. After advertising for new members, I attracted five other musicians who wanted to participate, including an accordion player, in addition to guitar, bass guitar, piano, vocals, and percussion. The musicians in this band were also more willing to try different instruments, which led to some swapping of instruments between songs, which as discussed earlier (on pp.31-32), helped to improve creativity in writing sessions. The acoustic nature of the band also meant that we leaned more towards a folk aesthetic, meaning that the lyrics were more prominent.

In this instance of the band, I found that having a dedicated singer (in contrast to the first band, where vocal duties were split between the bass player and a guitarist) was helpful, as this allowed for the delegation of work to be distributed more evenly, ensuring that the singer could work on lyric ideas and vocal melodies while the rest of the band put together the skeleton of the song. When the basic structure of the song was complete, having these small ideas already in place gave good points to build on when the band wrote the remainder of the lyrics, and I found that the fact that the creative momentum had already been built by the time we got onto writing lyrics made the process seem easier. This made rehearsals more relaxed, and we found ourselves consistently succeeding in writing complete songs within the given two hours.

Interestingly, the fact that the creative burden rested on a larger number of people meant that the workload was distributed more evenly between us, and this had a tangible effect on the songwriting. The atmosphere surrounding the writing process was much more relaxed in the second band, and the songs reflected that, being much more light-hearted in nature. This tied in well with the necessary instrumentation, creating an enjoyable atmosphere in which it was possible to involve the audience using clapping patterns and easy hooks for them to sing along with. This experience felt even more enjoyable than the first performance (possibly due to the reduced pressure of knowing

that a good performance was attainable, having achieved it in the past), and again, attracted a number of people who inquired about involvement in the Bad Idea Band for its next performance.

Many bands write in groups, both in rehearsal and in the studio. With the latter there is a certain amount of time pressure, due to the financial aspect of paying for a certain amount of days in the studio, and this relates to the time pressure in writing with the Bad Idea Band. Bands such as Deep Purple have championed writing in the studio, and have mentioned in interviews that writing in a group with time constraints can be an effective method of writing good quality songs (“the great thing about a band playing together is that you work off each other”, Glover, quoted from *Classic Albums: Deep Purple – The Making of Machine Head*, 2002)

I believe that this idea has a huge amount of potential, and will certainly pursue it in future as a means of developing and honing my own creativity, as well as a technique for allowing others to try similar projects in a creative environment. The success of the second Bad Idea Band performance resulted in me being approached by representatives of Huddlest, a local music and creative arts festival based in Huddersfield taking place in September, to form and perform with a third version of the Bad Idea Band. I feel as though future attempts will yield a more definite solution as to whether creativity can be improved through collaboration in this way, but my findings in the field so far have all been positive.

Pastiche as a Creative Tool

The prevalence of variations on a theme in classical music (Caplin, 1998, p.71) gives precedent for using prior pieces as inspiration, and has since been used in pop forms (blues music, for example, Till, 2007, in *Cross the Water Blues*, p.183) and as mentioned previously, inspiration can often come when observing the high quality work of others. In a songwriting context, this could be watching a good live performance or hearing a particularly well written song. Research has linked active emotional states with high outputs of creativity (George and Zhou, 2007). For those studying music, this could be

achieved by an intense enjoyment of the music of others. I often found that I was inspired to write music by witnessing other performances. This inspiration led me to follow certain stylistic points of the genre in which the source music was written, giving a starting point which made it easier to write in genres which I perceived to be particularly difficult, such as fingerstyle guitar pieces. An example of this was in writing the track "Once More with Feeling", which I was inspired to write following a performance by fingerstyle guitarist and singer songwriter Jon Gomm. The techniques involved in fingerstyle guitar playing include the use of alternate and open tunings, and playing several voices or melodies on a single guitar at once in order to accompany the lead line. I found both of these ideas intimidating due to the difficulty of the style and my lack of confidence with this technique.

One of Gomm's songs, "Wukan Motorcycle Kid", involved a very low tuning on the bottom E string of the guitar, so when deciding on a tuning for my guitar when writing the song, I decided to tune the low E string down to the A an octave below the A on the next string. I then spent a small amount of time detuning the strings until I found an open tuning which I liked (the final tuning used for the song was AAC#DAC#). I found this an interesting way of writing, due to the fact that no standard chord or scale shapes are applicable when writing in this tuning, and therefore I had to work out the melody and harmony by ear and learn to play from a fresh point of view, which had the effect of moving me away from clichés or predictability, which can often be a result of a my fingers favouring certain patterns and shapes on the fretboard after years of practice (possibly a result of being taught a correct and incorrect way of playing, similar to the aforementioned example of the child using the wrong end of a pencil).

The resulting piece was a deliberate attempt to capture the feeling and style of Jon Gomm's performance, and this led to the writing of what I think is one of the strongest tracks on the finished album. It should be noted however, that there was no material lifted from the stimulus piece and used in the track, meaning that whilst "Once More With Feeling" is similar in style to some of Jon

Gomm's pieces, the similarity comes from its inspiration and not a desire to create a carbon copy of a specific piece.

To a lesser extent, the piece "505" was inspired by artists such as Steve Vai and Joe Satriani. In the same way that I found the idea of creating a fingerstyle piece intimidating, the concept of a track relying so heavily on the lead guitar was also an interesting challenge as it becomes necessary to write a melody interesting enough to carry the song without the help of lyrics. I decided to keep the traditional structure of Verse, Chorus, Verse, Chorus, Middle 8, and Chorus, after seeing similar styled pieces as part of the Rockscool Grades curriculum. As the piece was being written, I decided to direct it in such a way to make it have a similar sound (and also instrumental difficulty level) to a rock/metal grade eight guitar piece. I tested this song on its intended audience amongst the music students at a local music school at which I work as a guitar tutor, many of whom have since learned and performed "505". It received widespread approval as both a track for listening and a challenge in learning to play, leading me to consider it a success. It was for this reason that I chose to include the song on the final CD.

Conclusions of the Experiment

Overall, I found the frequency and effort dedicated to my writing had an effect on the quality of the finished products. This can be seen in figs. 1 and 2 below.

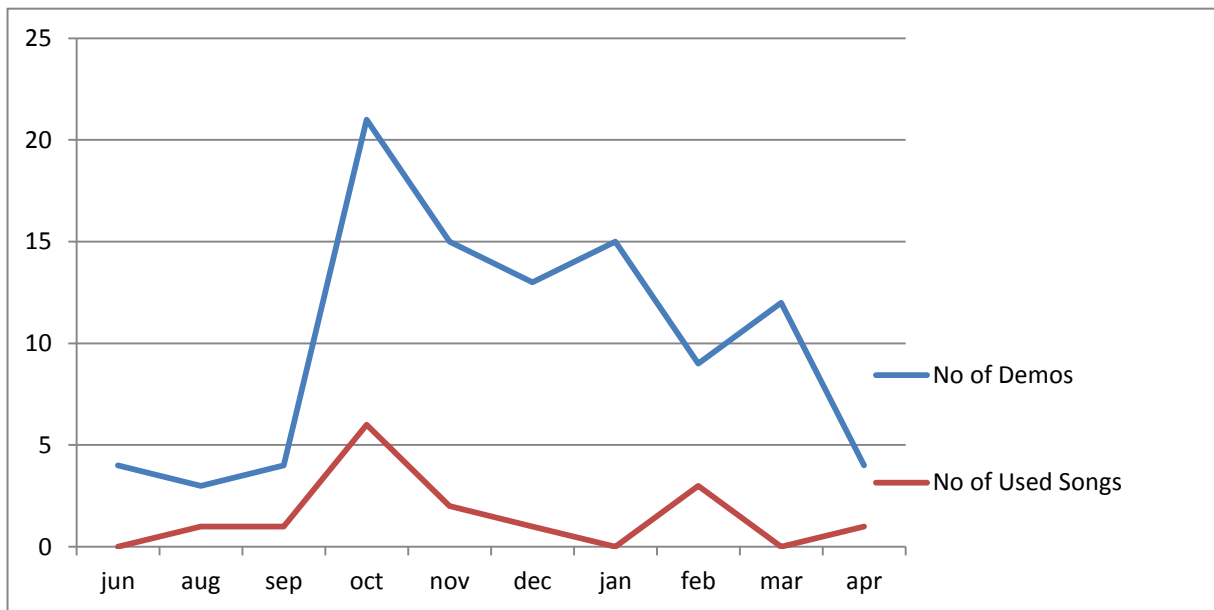


Fig. 1

In fig. 1, I have charted the number of songs written in each given month against the number of songs that were deemed to be good enough to include on the final album. There seems to be a strong correlation, especially around the initial writing period from September to December 2013. Interestingly, there appears to be a delay on the improvement in quality of the songs after this initial period. The dip in activity in February may not correspond to the spike in the quality of the songs in that same month. I suggest that this dip is responsible for the resulting lack of useable songs from March, and that the high level of activity during the January period was responsible for the high quality of the songs written in February. Indeed, after the initial writing period there does appear to be a delay in the effectiveness of the writing, suggesting that contrary to my original belief practice does not provide instant gratification in terms of quality of output. More, it is a slower process whereby a high number of songs written will gradually improve the quality of the songs written in the future. This is also indicated in the troughs as well as the peaks in the graph, and I found that after a certain amount of time of consistent daily writing with little increase in quality, self-efficacy issues can re-emerge, prompting a lack of creativity, despite the fact that the few pieces created were of a relatively high standard. The perception in hindsight of these increases in quality led to an increase in activity for the next month (March) where the cycle began again. In conclusion, with this knowledge,

I would suggest a routine writing schedule with no breaks in order to produce the highest quality output possible, as breaks from writing practice appear to have a particular, detrimental effect on my creativity.

In order to find an alternative explanation for the drop in correlation, I looked into the amount of time spent on the recorded songs, and found that the number of songs taken from a certain month has a stronger correlation with the amount of time spent writing the songs than purely the number of songs written in that month. Since I made detailed notes whilst writing the songs (including the amount of time spent writing), it was easy to calculate the average amount of time spent per day on songwriting and recording.

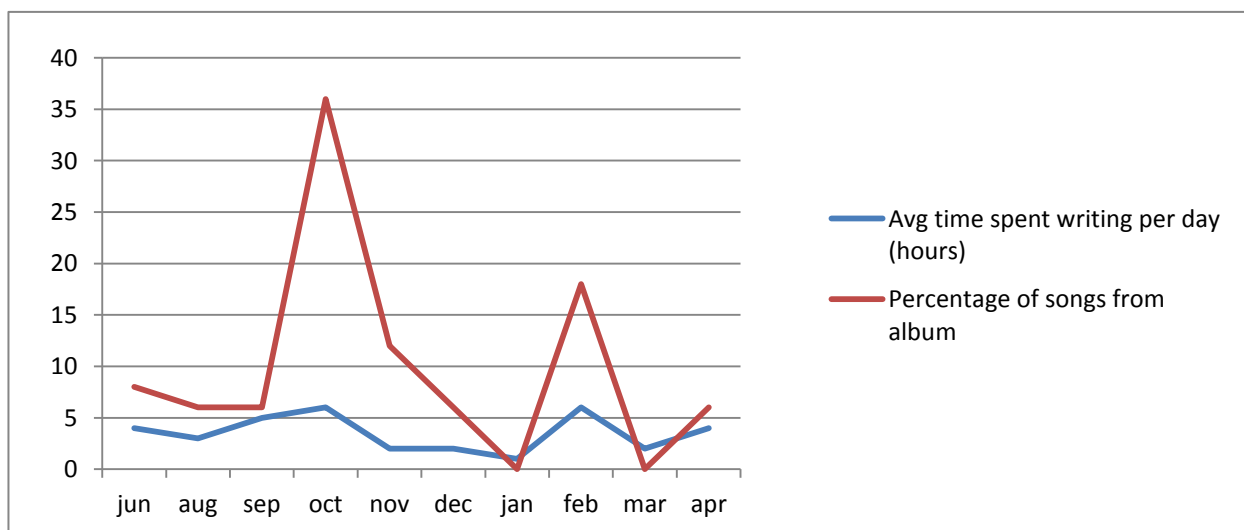


Fig. 2

Shown here is the average time per day spent on writing and recording the songs plotted against the percentage of songs from that month which were included on the finished record. There is a much stronger correlation between these variables, indicating a positive link between the numbers of hours spent writing a song, and my perceived quality of it. This could be due to a number of factors.

I suggest that the relationship between these variables is one of mutual causation, and not simple cause and effect. The amount of time I spent working on a song could be attributed to the fact that its potential was recognised during the writing process, and that my willingness to spend time on a

song is affected by my personal opinion on the quality of the song at the time of writing. Many times if I believed the song to have strong potential during the course of the writing process it resulted in the song being more fun to write (an important aspect in writing every day, as I found that the processes can quickly become stale, if done without consideration of this, as discussed above, p.30), and therefore more time was dedicated to working on it. This extra commitment of time seems to me to have been one of the factors that separated average songs from songs that were perceived as successful.

Finally, in an attempt to measure my general creativity before and after the course of routine writing, I decided to test my creativity using Tim Brown's 30 Circles Test (2008). Before the writing section of the experiment began, I took this test and scored 19/30 (filling in 19 of the 30 circles in the given time of 90 seconds). After the writing portion of the experiment was over, 170 days later, I re-took the test and found that I filled all of the 30 circles within the first 60 seconds of the test. Although this could have been for a number of reasons, including the fact that I had previously attempted the test and therefore had a small amount of practice, I felt the results of the experiment as I filled in the circles, feeling much freer to do so in the second test after training myself over the course of the experiment to ignore my reflex to edit my own ideas.

Examples of Forced Creativity in Other Media

On 19th January 2014 was the HudDevField game jam. A game jam is an event at which people from every aspect of game development gather, split into teams, and have a set amount of time (usually 12, 24, or 48 hours) to complete a full game. Teams usually consist of at least one programmer/coder, one game designer/artist, and someone to write music/design sound effects for the game. Usually teams each have several of each of these, allowing them to divide the effort between them in order to create the finished product as quickly as possible. The event that I

attended was relatively small, with teams consisting of three to five members. This, combined with the 12 hour limit we were given to complete our game, resulted in a number of unfinished and buggy games. Some teams kept in touch once the event had finished, with a view towards working on the game in their own time to complete it to a standard at which it could feasibly be published online as a finished game, with all of the core game mechanics fully functional. This dynamic reflects a way of working that is well documented in music and collaborative songwriting. The division of labour is not uncommon in musical creativity, especially in dividing responsibility between writing the music, writing the lyrics, and producing/mixing the track. In commercial pop music, all of these different aspects of the song are often outsourced to different artists, who specialise in their own field, and then the song is given to an established pop music artist to sing. The song is passed through many hands and creative minds before the finished product is complete.

This also inspired me, as part of my desire to exercise my creativity in media to which I was unaccustomed, to try and create a video game. Over the course of the game jam, I talked to various programmers and artists about their experience with creating for video games, and found that the code is often simply a means to an end. The majority of what makes a good game is simply the quality of the basic idea.

Over the following week, I learned to use a free visual programming language based on if functions, called Stencyl (<http://www.stencyl.com>), to create basic video games, seeking to establish whether my experience of creativity in a musical setting would allow me to exercise creativity more freely in a medium to which I was unaccustomed. After creating four to five very basic prototypes of games, developed one which progressed into a fully formed playable multiplayer arena shooter style game, which I named Colosseum 2120.

The concept of the game was inspired by a minigame on "Crash Bash", a game released by Sony Computer Entertainment (2000), in which the players control tanks, and must shoot each other's vehicles to destroy them in an arena style setting. For my game, I decided that after a bullet was

fired, it would continue bouncing around the arena, providing an extra obstacle for the players to avoid. After testing, I allowed players to destroy existing bullets by shooting them, preventing gameplay from becoming too messy. I later implemented a laser attack to add an extra element of skill to the game. The finished product can be found online at <http://www.newgrounds.com/portal/view/633746>. The game received reasonably poor reviews on the website (just below three out of five stars), but I feel as though the things I learned from creating a game have given me a deeper understanding of how to create music to be used in them, aiding my future endeavours in writing for these types of media. I found that my experience in exercising creativity every day helped me when creating things other than music. During my experiences in other media, I found that the core psychological techniques I had developed to overcome creative blocks (such as accepting failure as a valid path to success, and not letting a bad product affect my self-confidence or deter me from making another attempt) were important in allowing me to create games, art, and poetry efficiently, and I am confident that without these techniques I would not have been able to release (or indeed finish) something outside of what I consider to be my field of expertise.

Play

There is an intimate connection between play and creativity (Sawyer, 2013, p.102). Creativity is, at its very core, a childish activity, in that it requires one to let go of their inhibitions in order to produce original content. The idea of creativity is inextricably linked to that of play; Brown (2008) and Kelley and Kelley (2013) believe that revisiting our creative roots as children yields interesting creative results. In Tim Brown's 2008 TED talk *Tales of Creativity and Play* (2008) he outlined the importance of free thought in creativity. This inspired me to create a system that would allow the user to input in an entirely free manner, with absolutely no constraints, in order to create music that was harmonically and rhythmically assonant, by imposing strict guidelines on how the data was interpreted. To achieve this, I eliminated the idea of wrong notes, bad timing, and dissonance to

allow me to express myself more fully by using real time quantisation and tuning. The results of this experiment were recorded and can be found in Appendix 2 as “3rd March 2014 – Play”.

The lead synthesiser sound was created using a monophonic synthesiser patch (in NI Massive) tuned and quantised in Reaper in real time to ensure that whatever is input by the user on a MIDI keyboard, the output is always single quaver notes in the key of G pentatonic major. Other instruments included a noise patch with a slow attack and reverb, allowing the user to control the timbre of the sound using dials on a MIDI keyboard which were mapped to change parameters such as noise colour, volume, and delay. There were also various pads upon which individual notes were assigned to diatonic chords, which also allowed the user to change the harmonic structure of the piece using a MIDI device. Altogether, there were six instruments set up, mapped over three MIDI devices, which all produce harmonically assonant, and aesthetically pleasing sounds when played together. This allows the artist (or artists) to create freely, without worrying about negative effects of dissonance, wrong notes, or playing out of time.

Whilst playing on this hardware, I found the experience to be extremely enjoyable. The elimination of wrong notes allowed me to experiment in way I would usually never attempt when trying to write assonant and rhythmic music, including using extended keyboard techniques such as key clusters or multi-finger tremolo. If explored further, I would like to turn this into a small installation complete with bespoke hardware aimed at children, allowing them to play freely whilst creating something which would be desirable to listen to. Other examples of songs where I used the idea of play as a compositional tool include “16th October 2013 – Raspberries are the Best Fruit”, in which I used two delay units to create a no input electroacoustic noise piece from the digital feedback, and “5th November 2013 – Bird in a Jar”, which was a contemporary percussion piece written after receiving a challenge to create a piece using only an empty jam jar and a metal spoon.

Conclusion

This thesis has shown a range of literature that concludes that an important aspect of creativity is self-confidence. To achieve this confidence it is necessary to rule out the stigmatisation of mistakes and poor results and view them as a necessary step on the path to high quality creative output.

Research has also shown that creativity is something that is inherent in all of us, not a gifted few, and is possible to relearn, even after an extended period in which creativity has not been exercised.

My research has suggested that creative thought is simply the act of making unconscious connections between existing knowledge, and that in a songwriting context this may simply be the act of unconsciously drawing parallels between music and concepts that inspire the individual and attempting to create something which is a reflection of these influences. This influence may spark either the initial idea or the desire and direction in which to develop it and turn it into a complete and finished piece of music.

Through regularly writing songs, my creativity became easier over time, as I became more accustomed to the techniques used to create a full song from the initial idea, and became more confident with the use of ideas that were not necessarily as promising to me at the outset as others. A number of exercises aimed at practicing and developing creativity have been attempted, such as creating art outside my field of expertise, both within songwriting (creating music in genres which I have never considered before), and also in a wider creative sense, using the creative skills I have gained from regular songwriting to enhance my creativity in other artistic and problem solving scenarios. I also found that these methods may vary in their effectiveness, depending on the preferred writing style of the artist in question, but that regular songwriting is an important tool in learning to create a greater quantity and higher quality of ideas and pieces, and the experiment has shown that this regular writing improves both songwriting and general creativity, applicable to other artistic and problem solving scenarios, eventually reaching the point at which ideas and inspiration can be produced at will after developing a creative routine.

In conclusion, I have found that the time spent writing over the course of the experiment and the use of the various techniques suggested the literature review have had a positive effect on my creativity and on the quality of my songwriting and general creativity. My personal findings corroborate the theoretical ideas suggested in the various texts reviewed, that creativity can benefit from regular practice, and my hypothesis that general creative exercises (as described in the texts mentioned previously) are applicable to improving artistic creativity and songwriting has been supported by my findings. After routinely writing for a period of 170 days, I found that my attempts at songwriting yielded a greater number of ideas and an increase in the consistency of the generation of higher quality ideas. An improvement in general creativity was also shown in other creative pursuits and problem solving, including an improvement on the score of a creativity test.

Although in my case a certain amount of creative confidence was already present, I feel as though the ideas present in this experiment could be applicable to an individual with little or no artistic experience, improving both the quality and quantity of their creative output by making them aware of the nature and psychology of creativity. These techniques could also be used to gradually improve self-efficacy and confidence in songwriting, or creative confidence in general.

The literature review revealed a strong consensus regarding the importance of self confidence in creativity, and that creativity is, merely the ability to create links between existing nodes of knowledge, and is an ability which is accessible to everyone from an early age. Research suggests that the creative connection (leading up to the moment of realisation) is a primarily unconscious activity, and therefore after the initial absorb state in which knowledge is gathered, an ideal solution is to allow the unconscious mind to work on the problem, or even to take a break altogether. In the way that muscles require time to heal and grow after use, creativity can be thought of in a similar capacity, needing time away from being used to make connections between unconscious knowledge to ultimately present complete solutions for problems (Kelley and Kelley, 2013, p.2) and become stronger for future use.

The literature review in the thesis contains a wide variety of sources from which I have drawn my conclusions, including video lectures on creativity, interviews with successful writers, books and journal articles on the psychology of creativity, and more informal books and articles on ways of improving songwriting. Whilst some methods and concepts proved controversial (the idea of creativity being more naturally present in some people, for example), many ideas were universally acknowledged to improve creativity. One such idea was that of regular practice.

The autoethnographical aspects of the thesis have been recorded in such a way that many of the drawbacks of autoethnographical research have been avoided, including making detailed notes at the time of writing to avoid reliance on memory. However, some negative aspects of autoethnographical study (a small sample size, for example) were unavoidable.

Over the course of the experiment, I have drastically changed my perception of writer's block. From perceiving it as my most dangerous obstacle at the outset of the experiment, research (and subsequent experience) has shown me that it is easily manageable by working on several smaller ideas at once, working with another person, or by treating it as a symptom of a deeper change in mood that can often be overcome after dealing with the root causes of the primary issue.

This project has raised a number of questions that could be asked in future research. A longer term and more scientific study into personal creativity and songwriting, carried out on a significantly larger sample size of participants (and not autoethnographically), would increase understanding of the subject further, especially if this sample included individuals who perceive themselves as uncreative from the outset, with a view towards allowing them the creative confidence to involve themselves in songwriting or other artistic pursuits, or simply increasing their confidence suggesting ideas in a workplace environment.

Also of interest for further research is the concept of the Bad Idea Band, and the nature of collaborative creativity, especially when working to a specific and short deadline, and the use of this idea to explore the collaborative creativity of other demographic groups, including children,

especially those young enough to have not yet learned the reflex to stifle their own potential ideas. In my experience over the course of this experiment, I found collaboration with others to be a useful tool in songwriting, yielding higher quality results more often than individual songwriting.

The research I have carried out has also informed me of the importance of musical and creative education in schools, due to the widespread applicability of the skills and competencies learned through them (self-esteem and the ability to work with others, for example), the overall importance of creativity as a life skill, and the detrimental potential of stigmatising mistakes. Creativity is slowly becoming recognised as important in all aspects of daily life, including in business, where the problem solving skills it provides are essential. The self-confidence it is possible to learn from artistic creativity can build a strong creative attitude and enable people who would otherwise lack the creative confidence to express their ideas to do so, ensuring a greater flow of ideas and originality in all walks of life.

In short, this research has shown that creativity can be improved by regular practice.

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