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# BEING BOLD AND CREATIVE

A project that explores the extent to which being an effective, creative learner is dependent upon the environment in which the learning occurs. Pedagogical literature supports the hypothesis that creativity is dependent upon a positive learning environment. Qualitative methodologies will be used both at the beginning and end of the study to measure variations in student creativity. Budgetary and time frame issues will be considered, as well as ethical concerns such as confidentiality and consent.

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## 1. INTRODUCTION

Getting boys to demonstrate creative thought is a vexation of many teachers. As a result, this study seeks to answer the question of how educators can establish classrooms where creativity is fostered.

In 2013, The Scots College commenced the implementation of a new education philosophy, known as Brave Hearts Bold Minds. This conceptual framework seeks to 'use experiences of excellence to foster leadership, character and spirit...[thus creating] brave hearts and bold minds in every Scots boy' (The Scots College, 2013). 2014 will also see significant change for the College, as it must begin implementing the Australian National Curriculum in the subject areas of Science, Maths and English. In order to exploit and manage opportunities and threats to these changes, the College intends to reimagine its pedagogical framework.

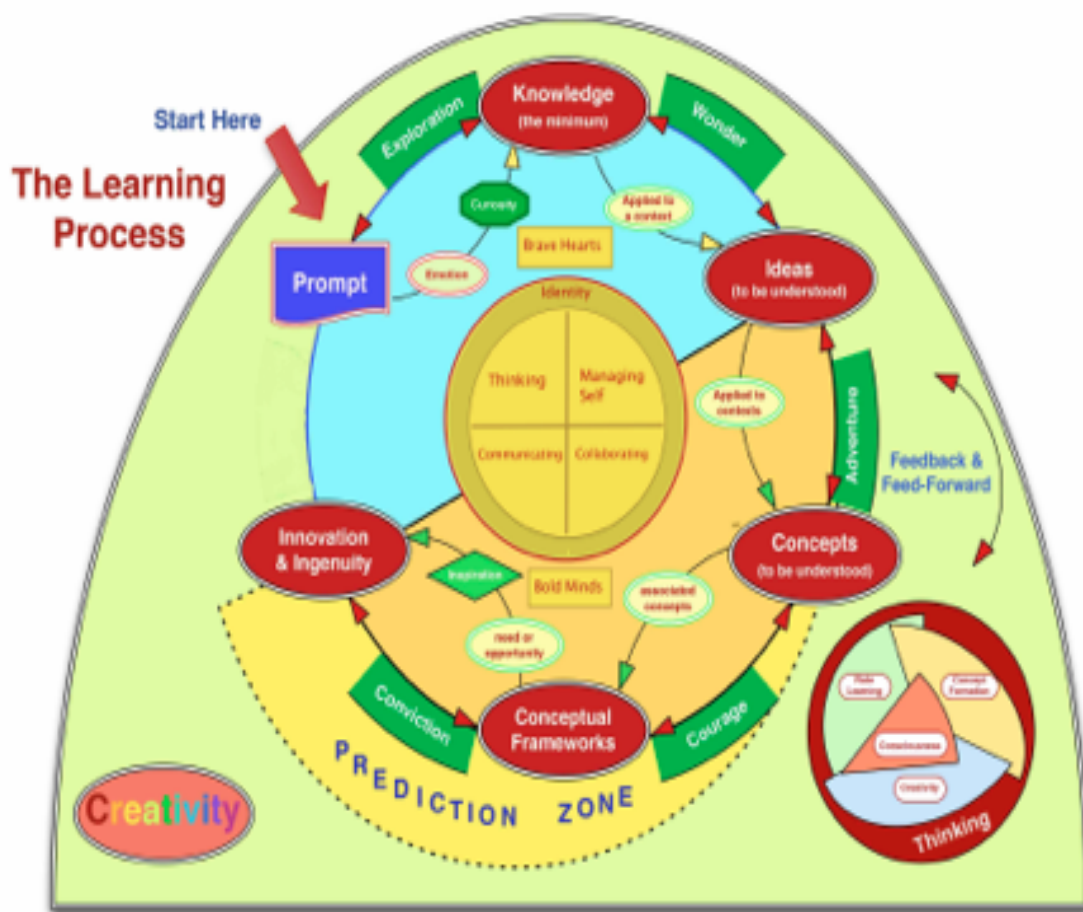


Figure 1: The Learning Process

The Learning Process is built around the belief that learning is a continuous journey, a quest from which creative, ingenious and innovative learners will emerge. For learners to be successful, they must be courageous and approach new information, situations and problems with conviction.

It is anticipated that the proposed research will uncover a close connection between the learner's emotional state and their creativity. That is that, boys who are provided with a nurturing learning environment, which recognizes and values their creative endeavours, will be more adventurous and work at a higher, creative level (Yeh and Wu, 2006, p. 213-227).

In order to address the research question, the Action Research framework will be utilised. This methodology complements the proposed study as it allows the researchers to seek out changes and improvements in teaching creativity. It will also develop their knowledge of creative teaching strategies and an understanding of those they instruct.

The proposed study will bring benefits to the College in a number of ways. Initially, it will attempt to provide classroom teachers with contextual knowledge and specific learning activities around which they will be able to design their own pedagogical sessions. By nature, enhanced teacher ability will provide benefits to those whom they instruct, developing their confidence as learners and their ability to produce 'thoughtful, imaginative and effective [pieces of] communication' (New South Wales Department of Education and Training, 2010). The study anticipates that by creating a classroom which fosters creative thought, a learners' ability to think, act and articulate creatively will be enhanced. Importantly, the research will serve to create the learning community's core mission - to develop learners of *Brave Hearts and [of] Bold Minds*, through the development of learners who become adventurous and have conviction in the classroom. (The Scots College, 2013). The project would also provide the learning community with the opportunity to reflect upon the Action Research framework as a valid means for developing a culture of innovation and leadership.

## 2. LITERATURE REVIEW

Educationalist Sir Ken Robinson (2009), argues as follows:

'Imagination is not the same as creativity. Creativity takes the process of imagination to another level. My definition of creativity is "the process of having original ideas that have value." Imagination can be entirely internal. You could be imaginative all day long without anyone noticing. But you never say that someone was creative if that person never did anything. To be creative you actually have to do something. It involves putting your imagination to work to make something new, to come up with new solutions to problems, even to think of new problems or questions. You can think of creativity as applied imagination' (p. 67).

Robinson qualifies this definition and identifies a number of misconceptions which educators hold about creativity. He urges educators to see creativity as a disciplined path of daily education - in everything we do - and not simply a form of 'artistic venting'. Because of the holistic relevance of creativity, Robinson

adds that these creative qualities can, and should be, something which all learners pursue. However, Robinson cautions that not all educational settings value or present opportunities to exploit creativity. He argues that the rise of standardised testing, and the subsequent impersonal forms of assessment, do not provide opportunities for learners to be invigorated and impassioned by the learning process, and that people are systematically alienated by these forms of assessment

Robinson's idea that creativity is an act of 'doing' is echoed by Paul Collard, Chief Executive of the United Kingdom's educational body Creativity, Culture and Education. Collard asserts that "creative skills aren't just about good ideas, they are ... the skills to make good ideas happen." (Clifford, p75) Collard suggests creative skills should include five major areas; imagination, self motivation, resiliency, collaboration and student responsibility. However, what is also readily acknowledged is that creativity cannot be attained, or even cultivated, if a number of factors are not present.

Robert J. Sternberg (2006, p88) argues that for creativity to develop, an individual needs to exhibit intellectual skills:

- a) the ability to see problems in new ways;
- b) the ability to recognise which ideas are worth pursuing;
- c) the ability to 'sell' one's creative ideas on to others;
- d) and a working knowledge of the subject area.

He also claims that individuals with personality types predisposed to taking risks are intrinsically motivated by the pursuit of their passions therefore able to achieve a creative state of mind. Finally, Sternberg asserts that without a classroom environment that is supportive and rewarding of creativity, an individual will never have the *opportunity* to exhibit creative thought. However, Sternberg fails to take into account the impact physical resources, such as classroom furniture, layout and the volume of useable space, can have upon creativity.

Specific educational approaches are required to address deficiencies in boys' creativity. Bray et al. argues that the "demands" of school curricula and assessment must be tailored to meet boys' "developmental capacity and ... social experiences to cope successfully." (p80) Thus, further research is needed to determine a range of effective strategies to address these issues. Holland recognizes the clear need to "Cater for the different learning styles preferred for boys. Provide a more practical, visual and tactile approach to teaching and learning that emphasizes physical movement and interaction which shows relevance and a real world connection." (p7) Therefore, research into effective methods for boys' creativity must be completed to address the inequities in educational outcomes between the two genders.

Recent studies into educational strategies to improve boys' creative capabilities have predominantly used Action Research as the primary methodology. Macniff establishes Action Research as:

‘a powerfully liberating form of professional enquiry [as it allows] practitioners themselves to investigate their practices as they find ways to live more fully in the direction of their educational values. They are not told what to do. They decide for themselves what to do, in negotiation with others.’

Action Research is, according to Mills, built around the following sequence:

1. Identifying a problem
2. Collecting data
3. Analyzing and interpreting the data
4. Developing a plan of action

Mills adds that an advantage of Action Research is that it is a form of research done by teachers, allowing them to investigate problems with their own practice and classrooms and improve their effectiveness and quality as educators.

Handscorn & MacBeath (2003) state that action research is best conducted in educators’ regular environment to allow the continuous evaluation and modification of the research design required in the action research model (p2). Consequently, the research will occur in two Year 7 English classes. The flexible nature of this method allows change and improvement within the educational setting to collaborative improvement for educational outcomes. (Perrett, p1)

The Department of Education and Training advocates the use of action research as a method of educators to:

Work in a collaborative way to identify issues in their organisation and develop processes for improvement... [a] method teachers use for improvement in both their practice and their students’ learning outcomes. The central goal of action research is positive educational change... [to] impact significantly on the teachers involved and how they teach. (NSW DET, 2010, p1)

However, Johnson, Mertler & Charles, Mills and Schmuck caution against rushing into an Action Research framework. Specifically, they argue that teachers need to see Action Research as more systematic and more collaborative than ‘usual’ teacher practice. It is not simply problem solving as it involves the specification of a problem, the development of something new (in most cases), and critical reflection on its effectiveness. Importantly, Johnson, Mertler & Charles, Mills and Schmuck note that Action Research is not conclusive and that it takes the form of tentative solutions based on observation that require monitoring and evaluation in order to identify strengths, weaknesses, opportunities and threats.

### 3. METHODOLOGY

#### 3.1 Context

The research was conducted in a boys' school in eastern Sydney. The school is well established as a member of the Great Public Schools (G.P.S) Association and has maintained a place in the local and State communities for 120 years. During this time the school has provided a fee-paying 'traditional' education to only boys from the local area, interstate and overseas. The Presbyterian Church was responsible for the establishment of the school, and its influence is seen in the school's mission:

' In seeking to serve God faithfully, The Scots College exists to inspire boys to learn, lead and serve as they strive for excellence together' (The Scots College, 2010)

The two classes involved in the research reflect a range of literacy and writing skills and have been streamed into different classes based upon the Alwell Year Seven English entrance data. The class "S4.1" is an A-stream class, comprising twenty four boys who were placed in the highest stream based on their literacy skills. The "S4.4" class is a B-stream class, comprising of twenty boys who were placed in the medium stream based on their literacy skills.

#### 3.2 Design method

The definition of creativity as a cognitive condition was formed by the imperative of 'Brave Hearts Bold Minds' to inspire students to 'seek out adventure in the world'. This direction meant that the scope of the study needed to be concise and as a result, the study needed to specifically focus on recording the learners' attitudes and dispositions towards creativity. Other elements of the classroom which were observed were learners' willingness to question and to provide answers, and their openness to risk-taking. The study also needed to examine the role of the teacher in the classroom and how this position, and the teacher's relationship with the class, would impact upon the development of creativity.

The scope of the study required a number of limitations to be established. The timeframe of the study was limited to five weeks (one unit of work) to allow the researchers adequate time to reflect upon the data. The study was limited to two Year Seven classes who are commencing their study at the school. Years 8 to 12 were omitted from the study as older students exhibit more established, less malleable ways of thinking about learning. The location of the study was limited to the school's English Department as it is undertaking a drive to renew itself and improve student outcomes.

The most appropriate methodology for the intended study was Action Research. This approach allowed the research practitioner to reflect on the process and outcomes and then react and change practice appropriately. This concept is supported by the Kemmis Action Research Model (1985), which prescribes the steps of planning, acting, observing and reflecting to carry out the research.

During the data collection phase of the research, qualitative data was gathered. According to Nicolls (2011, p2), 'qualitative data serve to provide a bigger picture of a situation or issue and can inform in an accessible way.' According to the United Kingdom's Association of Qualitative Research (2013), the underlying characteristics of this methodology are:

1. Data collected through direct encounters such as through interview or observation and is rather time consuming.
2. It is concerned with opinions, feelings and experiences.
3. It describes social phenomena as they occur naturally - no attempt is made to manipulate the situation - just understand and describe.
4. Understanding is sought by taking a holistic perspective rather than looking at a set of variables.
5. Allows researchers to develop concepts and theories that allow them to understand the social world.

However, Shenton (2004) asserts that as Qualitative data can be subjective and biases hard to detect, researchers need to be aware of the variables which may influence or skew results and take measures to control them. Variables such as student knowledge, perceptions of creativity and self-confidence were monitored throughout the project, and techniques to teach creativity adjusted as a result.

To prevent the data from the site being skewed, a number of strategies were undertaken to ensure validity:

1. Employing Action Research methodology. The reflective element of this methodology allowed the project to respond to changes and variations in student interest and emotion.
2. Observations were recorded accurately and in detail, in the immediacy of the experiment to avoid distortion of meaning.
3. Only students who willingly chose to participate in the study were observed.
4. A wide range of participants was chosen (two classes), increasing the variety of responses and reducing the probability of bias.
5. Iterative questioning was employed during the Focus Groups. Questions were reframed to identify implied meaning and potential mistruths.
6. Collaboration with, and debriefing by, the Dean of Language Arts and Director of Academic Projects. These discussions provided the researchers with new perspective on the scope of the study, as well as highlighting potential flaws with the processes involved.

### **3.3 Data collection and analysis**

The study employed surveys, field notes, photographs and focus groups to determine how effective educators were in establishing classrooms in which boys were able to embrace creativity. Prior to the study, open-ended qualitative surveys were conducted to attain from consenting participants:

- a) their own definitions of creativity;



- b) what is important to them as students;
- c) a list of the emotions they associate with creativity;
- d) a self-graded rating of their own creativity;
- e) awareness of how creativity can be blocked or held back;
- f) their definition of risk-taking;
- g) the identity of individuals whom they consider creative.

Over the four-week duration of the study, two data sources were used to investigate the research question. Field notes were employed to record observations of behaviours, student dialogue and informal conversations. However, whilst the field notes provided insight into student engagement and reaction to tasks, it transpired that they were not an efficient way of gathering data on the research question. The narrative nature of this form of record-taking meant useable data needed to be extracted from largely irrelevant language. Photographs were used to collect student work samples and informal 'like-it' surveys on the class whiteboard. At the conclusion of the study, multiple focus groups were held. These groups were made up of randomly selected students from both classes who chose to have their voices recorded. The purpose of the focus groups was to determine:

- a) whether their definition of creativity had change;
- b) the extent to which their classrooms had been a place where creativity was pursued;
- c) and what they would like to see happen to make their classroom more creative in the future.

The answers to these questions were distilled from the participants' direct responses (what they said) and their indirect responses (the tone, volume and cadence of their voices).

To answer both research questions (how do teachers develop classrooms that encourages creativity; have [the learners] embraced creativity), strategies suggested by the Psychology Press (2004) were employed.

The researchers first collated the information obtained from the participants prior to and during the study. Next, the items of information were categorised. If a given response appeared relevant to multiple categories, it was included in all of them. The categories are:

- How did student define creativity?
- Did Students become more creative in the classroom?
- What is repeated the most?
- What is observed the least?
- What are the interesting, 'left field' responses?
- How did the responses of higher and lower classes vary?
- What things stayed the same over the duration of the study?
- What things changed over the duration of the study?

Each researcher categorised the information separately. When this was completed, the researchers compared their findings and noted similarities and differences.

The data collated during the focus groups was then interpreted. Information was sorted into the same fields as in the previous analytical phase, with one notable difference; the focus turned to observing how the delivery of responses exhibited creativity.

## **4. DATA AND FINDINGS**

### **4.1. Pre-Study Survey**

During the survey, students defined creativity as a way of thinking and the process of creating a tangible outcome, such as a product or idea. The majority of students identified creativity as developing something entirely new or unique. Students were then asked to identify people they considered creative and what characteristics they possessed. Most examples included individuals who have generated a famous cultural artifact. When asked how creativity can be blocked, many students expressed emotions such as stress, anxiety or sadness as an underlying cause. This repetition demonstrates the impact of an individual's self concept and confidence on the creative process. This theme was also apparent when the students responded to what they considered to be risk-taking. Students identified risk-taking as to do something that was new and that was not comfortable. Risk-taking also involved being different. Therefore, taking a risk, according to the students, is to complete a task that they do not feel confident doing.

The survey then focused on the introspective, asking the participants to identify what was important to them as students. The responses indicated three priorities:

1. the formation of positive working relationships with teachers and constructive, mutually beneficial peer relationships. Also, being able to have 'fun' and socially interact with peers and the teacher were considered a 'need';
2. academic success, primarily the attainment of good marks for class work and Portfolio Tasks;
3. tasks that are meaningful to their lives and are rigorous.

Students were then asked to reflect and describe their own sense of creativity. While some students saw themselves as being 'very creative' and creative 'by fluke', the majority of students were apathetic towards their creativity, seeing their personal creative abilities as being neither 'good' nor 'bad'. A point of interest was that a number of students identified that 'being creative' was situational and that factors such as the teacher and syllabus content affected how they viewed their own creativity. Students also revealed that being creative was an emotional experience. Their responses reflected a perception that creativity can be rewarding, adventurous, energetic and positive, as well as be a process that can result in the development of fear and anxiety.

## 4.2 Observations during the Study

The responsibility of developing a classroom in which creativity is fostered rests largely with the educator. Therefore, a number of strategies were enacted in order to craft learning environments which were free from stress and anxiety and in which students could develop the energy needed to power creativity. These strategies included:

- Planning learning experiences which allowed students to undertake **inquiry-based learning** in both group and individual modes.
- Structuring learning sequences around **open-ended problems** which students would need to devise their own strategies for achieving success or a desired outcome.
- **Tailoring unit content** to suit students' preferred learning styles.
- **Reducing the scaffolding** provided to students on tasks, prompting them to take calculated risks.
- Allowing learners to experience a **kinesthetic learning style** through role plays, rotating work-stations and interactive team-building activities.
- **Building personal relationships** with students by employing humour and focusing on the development of trust and respect. Rapport was developed by sharing stories of personal success and failure.

The field observations revealed that the students' fear of "getting it right" emerged as an overriding concern for the boys in both classes. At the start of an activity, students consistently asked questions to clarify the meaning of the activity, to determine explicit task requirements and to gauge the impact on their work on academic results. For example, Student #14 asked, "How will we know if we do it wrong?" The students' lack of confidence was further reflected in their ongoing quest for feedback during tasks. Students frequently asked the teacher questions to ensure they were completing the task in the correct manner, or to a satisfactory quality. For example, Student #39 asked the teacher "Can we change our story?" This need for emotional support was evident in both classes, though featured more frequently in the higher streamed class. Students in the higher streamed class continued to demonstrate and express anxiety regarding marks and outcomes, which initially interfered with taking the risks that are an intrinsic part of the creative process. They needed to be continually reassured that taking such risks would not be detrimental to their academic results. Whilst this anxiety was also evident in the lower streamed class, it was not as prevalent. These findings reveal that whilst the social and emotional pressure to perform academically can vary, it is a constant that affects the learning process in most classroom settings.

When given the necessary emotional support, the data analysis from the field observations revealed that students were willing to respond to and engage in risk-taking and creative opportunities. Both classes contained high levels of student movement throughout the classroom as boys circulated to interact with their peers. For example, during student led research activities, students walked to and from multiple locations in the classroom to visit and communicate with their peers. Students would walk holding their laptop from one desk to another, so they could communicate with peers. Students would perch themselves on desks, lean on each others' desks, sit on the floor or write on the whiteboard

together so they could respond to the respective activities. The circulation within the room was constant, with very few students remaining stationary for longer than five minutes. This data reveals that creative activities provided students with opportunities to work in a dynamic, kinesthetic manner which enriched the creative process.

Findings from the field observation data also revealed that students demonstrated effective communication and cooperative skills when participating in creative and risk-taking activities. Evidence revealed that students frequently asked each other questions, discussed findings between group members, explained possible alternatives to each other and made decisions collaboratively. Observations suggest that when given autonomy and engaging tasks, students' on-task behavior improves and requires minimal teacher intervention.

Data from the field observations also demonstrated significantly high levels of student engagement in response to the programmed activities. Whilst it is argued that measuring student engagement includes analyzing a range of factors, indicators such as work samples, student feedback, peer gestures and emotional reaction are considered to be key indicators (Trowler V & Trowler P, 2010 p3) During the study, students' positive emotional response was particularly evident when they rehearsed small role plays and were able to engage with each other and respond to the sequencing of the dramatic piece. Students responded with laughter, excitement and surprise.

The data also revealed that inquiry based activities frequently elicited indicators of engaged behaviour. For example, in the higher stream class, during collaborative and research based activities, the teacher regularly viewed evidence of work samples, student discussion and questioning as well as students' emotional responses such as curiosity, satisfaction and laughter. The findings also revealed an interesting phenomenon whereby students in both classes frequently exhibited or directly expressed the desire to immerse themselves in more detailed independent studies for their own enrichment. These findings suggest a strong correlation between the level of creativity of a task and the level of student engagement.

Data acquired from field observations revealed students working in a highly collaborative and intellectual manner when faced with creative and risk-taking opportunities. This was evident in both classes when completing activities such as student led inquiry and research. During these times, students frequently demonstrated effective communication skills, cooperation, and leadership. These behaviours were evident when students posed and responded to questions within their groups. Negotiation occurred amongst peers when dividing up responsibilities and organizing researched content. There was also evidence of autonomy within the students groups, with individuals making decisions to satisfy task requirements, such as organizing materials, synthesizing issues for presentation and reporting findings.

Data collected through the field observations identified a number of factors that remained unchanged. Despite the varied nature of tasks and activities, student completion rates in both classes did not vary. That is, the rate at which students finished their work remained equivalent to that prior to the study.

Furthermore, it was evident in the higher stream class, that students showed the same concern for time constraints as they did before the study, by asking questions and seeking feedback during activities about time.

External factors were also revealed to have had a consistent effect throughout the study. For example, time periods previously identified as difficult for concentration, such as late Friday afternoon, remained problematic. For example, despite an open ended and collaborative task, students in the lower stream class demonstrated off task behaviours, such as talking and did not demonstrate work samples indicative of engaged attention. Changes to students' routine also remained a contributing factor to student engagement and participation. For example, when a number of students were absent from the lower stream class due to a school event, on their return they demonstrated a lack of understanding, unease and distraction, similar to levels prior to the study.

In response to the study, a few unexpected findings arose in the field observations. One finding that was apparent in the higher stream class was that students, who previously presented as hesitant in the learning process, were empowered by the open ended nature of tasks. For example, Student #12, who previously rarely asked questions to clarify meaning, initiated enquiries from the teacher and sought feedback. This finding suggests that the classroom environment had altered to bring all students to an equal place of uncertainty, engendering confidence in previously introverted students. Another interesting finding from the field observation data was evident in the lower stream class. Student #38, who has some learning and social difficulties, was able to contribute meaningful and relevant information that elicited questions and comments from many of his peers. The open nature of the inquiry task allowed him to demonstrate his knowledge and effectively engage with his peers.

#### **4.3 Observations from the Focus Groups**

Students showed limited change in their definition of creativity when responding in their focus group session. Most participants indicated that their definition had not changed during the course of the project. The primary reason given for this lack of change centered on the notion that creativity is a complex term that can incorporate a multitude of concepts. For example one student stated, "[Creativity] can mean anything. It can be different, based on your personal experiences." A small number of students expressed that their understanding of creativity had improved over the course of the project. For example one student expressed that they were able to "narrow down" their understanding of creativity. Those who had changed their definition of the term predominantly attributed this to their experience in the classroom activities. For example, one student responded "When you like what you are doing, you think about it more, so if its fun, we think about it more and then learn more." These results demonstrate that whilst the project was very short in duration, changes in student understanding of creativity occurred. The results suggest that a longer, more comprehensive creativity program could further enhance students' familiarization with creativity.

When asked to what extent the classroom was a place where creativity was pursued or encouraged during the study, a number of clear trends emerged. The overwhelming response from students was

that inquiry based activities gave students the flexibility that engendered creativity. One student expressed that creativity was improved by “not being spoon fed.” Another student explained that “by having freedom in the task and having broad constraints” enabled him to develop his creativity. Students consistently found that “fun” activities which engaged them promoted creativity. This concept was shown in statements such as “we did activities that encouraged individuality” and “acting is fun and it’s nice to be someone else.”

There was considerable variation in student responses in the focus groups when asked what they would like to see happen to make the classroom more creative in the future. Many students responded that lessons needed to be more kinesthetically engaging. For example, the phrase “hands on” was used by a number of students to express this concept. Conversely, other students proposed that more written work was needed and felt that “[Creative tasks are] not as educational as doing writing.” Despite these differences, the students agreed that a variety of learning strategies are needed in class in future. This was seen in comments such as “catering for other people’s styles of learning because some people like to learn by just writing and...others like to do visual, others auditory and kinetic as well.” There was a clear demand for a greater degree of student autonomy in the learning process. This was expressed by a number of students, for example, one student stated “we need more activities where we have to think on our own, or work as a team.” Another expressed this notion as completing “big projects that allow us to explore freely and allows us to pursue what you want to pursue.” These findings suggest that despite the fear of risk and failure, students have begun to recognise they can develop rigorous academic skills through creative tasks.

#### **4.4 Key Findings**

1. Whilst creativity is intuitive and individual, and therefore difficult to map, most participants in the study accepted that creativity was a process, the outcome of which is the creation of something ‘new’ or ‘different’.
2. Some students have a fear of making mistakes and “getting it wrong”. The decision by educators to formally label a task ‘creative’ can lead to an increase in perceived risk on the part of students which may impact on their ability and willingness to be imaginative and innovative. Students who felt this way also identified the procurement of getting ‘high grades’ as vital to their place in the classroom.
3. Learner’s participation in the creative process may be characterized by high levels of fear and anxiety, or enthusiasm and confidence. The act of being creative is therefore an emotional process and is shaped by the learner’s experience in the classroom and their willingness to take risks.
4. Teaching the benefits of risk-taking and making mistakes to students will take time and should be done explicitly.
5. Decision making is a higher order thinking skill necessary for creativity to flourish. A learner’s ability to make decisions, usually under pressure, is dependent upon having a sense of resilience.
6. Having fun and socially interacting with peers and teachers are student needs - not wants - and often are precursors to the occurrence of success. The creation of a classroom environment

where students feel valued and respected together with the programming of engaging and kinesthetic learning activities that allow students a degree of autonomy engenders creativity.

7. Reflective and dynamic pedagogical practice allows teachers to improve educational outcomes by being able to respond to the unique needs of their students.

## **5. RECOMMENDATIONS**

This report recommends that The Scots College:

1. undertakes Action Research in different academic departments to measure the relationship between creativity and the classroom environment;
2. develops a Professional Learning Plan for teachers to further their knowledge and understanding of Action Research;
3. develops a Professional Learning Plan to assist teachers in the development of effective reflective practice.

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