Faculty of Education and Social Work

Assessment and creative liberty.

An action research study of Preliminary HSC English

Peta Estens

A thesis submitted in fulfilment of the requirements

for the award of the degree

Master of Education by Research (M.Ed)

February 2015

Abstract

In today's learning environment, students thrive when learning is personalised and where they are empowered by working collaboratively through open-ended and liberated thinking. Through inquiry-based approaches to teaching and learning facilitated through blended-learning experiences, teachers can develop a more inclusive, interactive and creative approach to teaching, whilst students develop self-confidence, independence and pride with their learning. This action research study explored how a blended and inquiry-based approach to learning, facilitated through an online collaborative platform, enriched engagement and improved motivation in Preliminary Higher School Certificate English students. Participants in this action research responded to an inquiry-based summative assessment task with freedom to choose format and style, drawing on multiple modes, semiotic resources, and digital tools. The benefits included enriched collaborative learning experiences through innovative activities and digital technologies, allowing students to employ creative liberty within their learning processes.

Findings suggest that students approached the inquiry question through differing motivations; some students were engaged by the independence, flexibility and freedom of the inquiry-based approach, and some saw the process as a rite of passage. The students were empowered by the personalised approach to learning; notably, students had a profound shift in their awareness of their ability to learn and construct new knowledge. The differing motivations driving students through their inquiry ignited different perspectives, generated novel ideas and established a dynamic energy. The action research shed light onto the changing role of the teacher, who served as team leader, project manager, coordinator and facilitator of student learning. Findings indicate that adopting a more democratic and participatory role dramatically transformed the relationship between teacher and students.

Table of Contents

List of Figures

Acknowledgements

Action research gave me the opportunity to investigate, reflect and appreciate how digital technology, inquiry-based approaches to learning and summative assessment with creative liberty can affect student motivation and deep learning experiences. Dr. Linda Gibson-Langford introduced me to Action Research in 2011 and has supported my professional development as a teacher-researcher with three formalised investigations. She has been most generous with her time and nurtured my curious and reflective engagement with teaching and learning. This thesis would not have been possible without her mentorship and friendship.

I would like to thank my supervisor, Dr. Jen Scott Curwood, for her constructive feedback throughout the investigation and for her guidance. Her suggested readings were invaluable in extending my understanding of research as well as heightening my appreciation of the power of digital technology, creativity in the English classroom and blended-learning environments. There were a number of changes in my life during this research and I would not have been able to complete this thesis without her encouragement. In addition, I would like to thank Dr. Jen Scott Curwood for inviting me to join in professional opportunities: applying for and being awarded the International Reading Association's Teacher as Researcher Grant (2013), contributing as a member on workshop panels and appearances as a guest lecturer at The University of Sydney.

Finally, to the students of this study, I would like to thank you for your generosity in participating in the research and for the memories.

Author's Declaration

This is to certify that:

I.   this thesis comprises only my original work towards the Master of Education by Research degree;

II.   due acknowledgement has been made in the text to all other material used;

III.   the thesis does not exceed the word length for this degree;

IV.   no part of this work has been used for the award of another degree; and

V.   this thesis meets the University of Sydney's Human Research Ethics Committee (HREC) requirements for the conduct of research.

Signature(s):

…………………………………………………………………..

Name(s):

…………………………………………………………………..

Date:

…………………………………………………………………..

Chapter One
Introduction

1.1. Purpose of the Research

The New South Wales Board of Studies English Syllabus requires students to analyse and reflect upon a complex and diverse range of literature and texts. Teachers and students are challenged to engage with a dense curriculum and meet national content objectives and outcomes. In addition, Australian schools are increasingly held accountable for student achievement on standards-based tests (Fehring & Nyland, 2012). Specifically, there is pressure for teachers and students to raise test scores in state and national examinations such as the National Assessment Program - Literacy and Numeracy (NAPLAN) and the Higher School Certificate (HSC) (Chappuis, Stiggins, Arter & Chappuis, 2009). Fehring and Nyland (2012) argue, 'What is valued in literacy learning has become that which can be measured, quantified, analysed and compared' and subsequently 'a narrowing of the curriculum, together with a marginalisation of multicultural Australians, has been the result of such rectifications' (p. 10). Unfairness and inequality are primary concerns with standardised testing. In particular, certain subjects and assessment strategies are often privileged, which has a profound impact on the ways in which schools are designed, staffed, and resourced (Wyn, 2009).

The absolute, and at times rigid, categorisation of subject content in the Australian National Curriculum may undermine transformative learning experiences. Ewing (2010) notes that the current national curriculum for Australian children 'continues to privilege a traditional subject hierarchy with traditional textual understandings of literacy (reading and writing) along with numeracy taking priority. Thinking processes seem secondary to more technical skills that are more easily measurable with multiple-choice tests' (p. 28). There is a responsibility for curricula, including models of assessment, to have platforms fostering reading, writing, and viewing multi-layered texts that provide inspiration for creative compositions. Moreover, deep learning occurs when school-based learning reflects real-world experiences (Ewing, 2010). Twenty-first century definitions of literacy include multimodal literacies: the synchronous functioning of the modes of image, movement, colour, gesture, 3D objects, music and sound on a digital screen that is different to the traditional understanding of 'reading' or 'writing', as it is a non-linear and simultaneous process (Kress, 2003). Digital technologies have revolutionised teaching and learning, and they can facilitate inquiry-based approaches in the classroom (Papert,

1972). However, the summative assessment methods of state and national testing currently do not include the fostering of student literacy skills and knowledge that demonstrate evolving digital and interactive skills, using multimodal texts. Instead, traditional forms of assessment, such as time-based, paper-based examinations, continue to be valued measurements of student achievement, as evidenced by NAPLAN and the HSC examinations. These examinations are rigid in their style and structure.

Learning styles are unique and deeply personal as an individual's approach to perceiving, remembering, processing, organising information and problem solving is influenced by a combination of cognitive, affective and psychological factors including the way a learner perceives, interacts and responds to the learning environment (Coffield, Moseley, Hall & Ecclestone, 2004). A substantial body of research argues that inclusive education requires teaching and learning approaches that embrace varied learning styles and recognise individuality (Ewing, 2010). Gregorc (2014) advocates that teachers who understand their own styles and those of the students are able to 'develop a repertoire of authentic skills' (Gregorc, 2014). There are multiple and often conflicting assumptions about best-known models of learning styles and accordingly, as teachers identify individual learner's needs, the curriculum content and method of assessment needs to be flexible to accommodate personalised learning experiences. According to Dunn and Dunn (2003), elements influencing the learner stem from five major strands: environmental, emotional, sociological, psychological and physiological. Ultimately, Dunn and Dunn's model focuses on affirming strengths and does not stigmatise preferences. Teachers using the Dunn and Dunn model diagnostically test and identify students' favoured method of instruction and environmental conditions and enable students to work with their strong preferences (Coffield, Moseley, Hall, & Ecclestone, 2004).

Complementing Gregorc's and Dunn and Dunn's constructivist approaches to theories of teaching and learning, the cognitivists argue that feedback serves to support the awareness of accurate learning process to modify behaviour. (Etmer & Newby, 2013). Riding and Cheema (1991) claim learning 'strategies may vary from time to time, and may be learned and developed.' (p. 196). They argue that, through cognitive style analysis, teachers can identify to what extent their students are holistic-analytic and verbal-imagery learners for the purpose of guarding against bias towards any one extreme poles of the model. As teachers become familiar with emerging theories of effective pedagogy, it is important to adapt the implementation and assessment of curriculum content to meet

the needs of the individual learner. To move toward a more fluent pedagogy for today's learner, school-based learning and assessment must enable students to demonstrate multimodal literacies.

Unlike state and national that are developed by local communities… so that students are working towards much more challenging standards and teachers are learning how to look at their students differently, how to support their learning better (n.p.).

Drawing on constructivist and cognitivist theories of literacy and learning, this action research study explored how the responses to summative assessments through an inquiry-based approach can improve motivation and learning in Preliminary Higher School Certificate English students. Specifically, the research investigated the process of formative and summative assessment in which students had a choice in how to present their knowledge. Participants in this study responded to an inquiry-based assessment task in a format and style of their own choosing, drawing on multiple modes, semiotic resources, and digital tools. By adopting innovative and flexible methods of assessment, this study considered the impact in offering students a more fair and flexible platform to showcase their knowledge, skills and abilities. Specifically, this action research project sought to: Elicit deeper understanding of the impact of summative assessment on student creative liberty, understand the role of the teacher in supporting students' learning on students' terms, investigate how digital tools and fostering creativity are integral and supportive of deep learning experiences.

1.2. Significance of the Research

The significance of this research is to reflect and report upon the changing role of teachers in the digital age as they deliver the weighty course content prescribed in the Australian National Curriculum, tailored to meet the personalised needs of the learner, whilst achieving substantial results in high-stakes standardised tests. The significance of this study, by a teacher-researcher, is the sharing of evidence-based research on best educational practice in today's multimodal learning environment. This study also offers insight into how learning is affected when students are enabled to work independently and collaboratively, incorporating a multimodal approach while researching, questioning, reflecting, analysing and constructing a response to a set question, within a blended-learning environment fostering personal creative liberty. It also offers insight into how classroom teachers can shift their focus from delivering

content to adopting the role of mentor, team leader, project manager and tutor as they guide students through the inquiry process.

1.2. Research Questions

Two key questions guided this study: What is the changing role of the teacher as students adopt the inquiry-based process of learning? And, how is student motivation within a summative assessment task influenced by creating a project in a format and style of their choosing?

1.4. Definition of key terms

Blended Learning. Blended learning has been defined as any time a student learns at least in part at a supervised bricks-and-mortar location, such as a school classroom, and at least in part through online delivery with some element of student control over time, place, path, and/or pace. Teachers combine instructional methods and modalities to support student inquiry. Yen and Lee (2011) suggest that blended learning is a method for teaching and learning that provides realistic and practical opportunities for learners and teachers to solve problems together.

Creative Liberty. Lucas, Claxton and Spencer (2013) identify these core dispositions as being inquisitive, persistent, imaginative, collaborative and disciplined. Pope (2005) argues the four fundamental drivers for the creative process include:

Inspiration: one being driven and stirred by a powerful force other than oneself.

Ecstasy: one being driven by an intense experience of being transported and transcended. This experience can be destructive and ecstatic before regenerative and rational.

Influence: one being driven by an experience of flowing into different sources, models and exemplars.

Intertextuality: one being driven by experiencing connections between texts.

Creative liberty is defined as an individual having the physical space, time and means to engage the core dispositions of the creative mind.

Digital Technologies. This study defines digital technologies as the amalgamation of digital hardware and software that is an integral element of today's learner's identity: in collaborating for learning and play, as well as private exploration and reflection. Buckingham (2010) argues for a change in the way society views digital technology, 'Children are engaging with these media, not as technologies but as cultural forms: they are not seeing them primarily as technical tools, but on the contrary as part of their popular culture, and of their everyday lived experience' (p. 59). The Australian Curriculum, Assessment and Reporting Authority (2009) concur, 'Digital and online technologies continue to profoundly transform how members of Australian society work, meet, keep in touch, express themselves, share, build and store knowledge, and access material for pleasure and learning' (p. 15).

Inquiry-Based Learning. Inquiry-based learning emerged from constructivist theories asserting students learn best when they actively discover course content (Cole, 2009). Swan, Pead, Doorman and Mooldijk (2013) suggest the inquiry-based model to learning positions the student to be active in the classroom: questioning, observing, formulating, reasoning, assuming, collecting and analysing data, representing solutions, making connections between information, interpreting, collaborating and illustrating. They argue the teacher's role is to 'choose substantive tasks that are extendable, encourage decision-making, creativity and higher order questioning, working collaboratively and developing dialogic talk to build on students' prior knowledge, encouraging students to critically examine alternative approaches in solving a problem' (p. 946). Wallowitz (2004) believes that teachers who effectively adopt inquiry-based learning experiences propose questions that will challenge students to interrogate the construction of knowledge.

Preliminary HSC English. The Higher School Certificate (HSC) is the credential awarded to secondary school students who successfully complete senior high school. The Preliminary HSC Course is usually completed by students in Years 11 and must be completed prior to embarking on the Higher School Certificate in Year 12. (Board of Studies Teaching & Educational Standards NSW, 2014).

Formative Assessment. Formative assessment is the ongoing, interactive assessment of student progress for the purpose of identifying the needs of the learner and shaping teaching (OECD, 2005). This paper considers formative assessment is the student's ability to work collaboratively as well as independently to inquire, reflect, monitor and develop his or her own processes in learning. Often referred to as assessment for learning, the process involves teachers using evidence about students' knowledge, understanding and skills to inform their teaching. (New South Wales Board of Studies, n.d). Looney (2011) suggests 'formative assessment, which emphasises the importance of actively engaging students in their own learning processes, resonates with countries' goals for the development of students' higher-order thinking skills and skills for learning-to-learn' (p. 5).

Summative Assessment. Summative assessment is the professional judgment by the teacher of a student's response to a formal assessment task that serves as measurement *of* student learning. Looney (2011) defines summative assessment as the 'summary assessments of student performance, including tests and examinations and end-of-year marks. Summative assessments of individual students may be used for promotion, certification or admission to higher levels of education' (p. 7). The summative assessment evaluates student learning against course outcomes and standards and usually occurs at defined key points during a unit of work or at the conclusion of a study (New South Wales Board of Studies, n.d).

Project-Based Learning. Helm and Katz (2001) define project-based approaches to learning as 'in-depth investigation; may be child- or teacher-initiated; research focused on finding answers to student questions; direction of inquiry follows children's interest' (p. 2). The project constructed illuminates the student's solution to the inquiry question. They identify project-based learning as supporting the inquiry-based approach to teaching and learning as it is:

At the student's own pace; learning experiences are determined by the project progression, learner's interest and resources available.

Activity based as students investigate, problem solve, question and collaborate in order to construct knowledge.

Teachers adopt the roles of facilitator, mentor, guide, devil's advocate and project manager supporting the learning process and the meeting of deadlines. Project-based learning is *led* by the teacher and *driven* by the student.

Resources are pooled by teachers, students and wider school community.

Final presentations demonstrate illuminate the new knowledge and skills of the student.

Literacy. In order to appreciate what multimodal literacy means it is important to clarify specialised literacies that underpin the relatively new concept. Mackey and Jacobson (2011) deconstruct the evolution of different literacies, including: Information literacy emphasizes the ability to foresee the depth of information needed, the skill in finding the information effectively and efficiently, the skilfulness in incorporating and synthesising new information with existing knowledge, and an understanding of the information environment and creation of new knowledge (p. 63).

Media literacy places a stronger focus on the participatory role of the citizen and 'provides a framework to access, analyse, evaluate, create and contribute using messages in a variety of forms' (p. 65). Thus media literacy is placed in a wider social and democratic context with the focus of preparing individuals to be informed, engaged and participants in their wider communities. Digital literacy is defined as 'the ability to read and interpret media (text, sound, images), to reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environment'. (p. 65).

In addition, multimodal literacy is the ability to understand and appreciate the interrelated, interdependent and fluid relationship between different texts, mediums, including traditional and digital modes of talking, listening, reading and writing (Walsh, 2010). This definition includes those collaborative processes of networking and connecting texts in both a physical and virtual sense.

Chapter Two

Theoretical Framework

2.1. Overview

In order to address the research questions, this study draws on both the constructivist and cognitivist theories of teaching and learning. Both these fields of knowledge work together to provide a strong platform for building a pedagogy that places students at the centre of their learning, ensuring that teaching strategies such as inquiry-based learning support the importance of teaching through a multimodal approach. Guey, Cheng and Shibata (2010) argue that 'What we need in the field of instruction at the moment is a comprehensive model where all the indispensable elements involved in effective instruction are integrated' (p. 105). As a model that supports both cognitive and constructivist theories on learning, inquiry-based learning is a model that facilitates an experience of discovery in the construction of knowledge. Students adopt different roles of researcher, questioner, reflector, analyst and creator, thereby developing their conceptualisation of the learning processes. Hence, this action research borrows strongly from the fields of cognitive and constructivist theories through an inquiry-based pedagogy that supports the personalising of students' learning in the Preliminary Advanced English Higher School Certificate course. Ensuring that the students have control over their learning, that they are highly motivated to shape their learning experience, and that they have the confidence to create their own project within the confines of the summative assessment requires teachers to confront their own understanding of how students learn through adopting more fluid strategies such as open classrooms, project-based learning, collaborative learning and experiential learning.

2.2. Cognitivist Theories of Teaching and Learning

The cognitivist theory of learning is concerned with the complex cognitive processes such as thinking, problem solving, language, concept formation and information processing (Ertmer & Newby, 2013). Students acquire knowledge through mental activities that require internal coding and structuring such as mental planning, goal-setting, and organisational strategies. The role of the teacher adopting the cognitive approach is to nurture students as they use appropriate learning strategies to acquire new knowledge. Ultimately, the cognitivist approach to learning is founded on promoting the mental processes required to unearth new knowledge and is in line with sound practice from the emerging research (Brown, Collins & Duguid, 1989). Etmer and Newby (2013a) advocate that:

> we need adaptive learners who are able to function well when optimal conditions do not exist, when situations are unpredictable and task demands change, when the problems are messy and ill-formed and the solutions depend on inventiveness, improvisation, discussion and social negotiation (p. 21).

Thus cognitivist theory forms a strong structure for inquiry-based learning as a process for supporting today's adaptive learner. Inquiry-based learning demands that the students are active as they adopt the necessary roles of researcher, reflector, questioner, analyst and illuminator. Such a process enables students to work both independently and collaboratively to solve problems. Often, with the inquiry-based approach to teaching and learning, authentic and active learning in the classroom can be noisy and appear disorderly as students personalise their learning experience, spontaneously selecting the appropriate tools to produce creative and generative responses. An inquiry-based approach to teaching and learning makes deliberate use of the social and physical context for the purpose of students constructing their knowledge. Brown, Collins, and Duguid's (1989) research raised the concern that the traditional culture of classroom dynamics is 'often anathematic' to 'cognitive apprenticeship attempts to promote learning within the nexus of activity, tool, and culture' (p. 40). Their research explored how the traditional classroom structures can completely fail to provide experiences that allow authentic activity and observe that, 'School activity too often tends to be hybrid, implicitly framed by one culture, but explicitly attributed to another' (p. 34). Furthermore, the schooling experience is broken into specific disciplines, each with their own culture. Moreover the archetypal classroom positions the teacher as the expert who describes, explains and scaffolds the tools and / or content to students for the purpose of learning. Lave (1988, in Brown, Collins and Duguid, 1989, p. 36) comments on how 'some students feel it

necessary to disguise effective strategies so that teachers believe the problems have been solved in the approved way'. There is a concern that students supress their organic problem-solving skills in order to satisfy predetermined desired answers, ultimately stifling inquiry and creative processes. Emerging theories are challenging these traditional classroom structures.

Brown, Collins and Duguid (1989) advocate that cognitive apprenticeship, the process of positioning students to grapple with challenges in an authentic way, develops useful knowledge. Their recommendations include teachers adopting the role of coaching students to enter authentic activity, before nurturing student collaboration as they develop self-confidence and control over their learning. Curwood, Magnifico and Lammers (2013) acknowledge the impact of students having not only authentic learning experiences in the classroom, but the effect it has on student motivation when sharing new knowledge with authentic audiences. Their research suggests 'online interactions provide opportunities for literacy learning through tool use, collaboration and critique… often sharing transformative works with other participants, who serve as active and interactive audiences for these creations' (p. 679). They argue that teachers who provide a collaborative approach for students to problem solve, through blended learning environments, foster an authentic and immersive experience for students. Their work emphasises the cognitivist theoretical paradigm and in particular, inquiry-based learning and teaching. It is clear from the work of Curwood et al. (2013) that teachers have the capacity to become *master to the apprentices*, as they enable students to co-construct their knowledge and hence develop higher levels of self-efficacy.

2.2.1. Cognitivism and Digital Technology. Digital tools and Internet connectivity has dramatically changed the manner in which students access information and construct knowledge. Tapping in to this change, these digital tools and online connectivity can effectively serve as a form of teacher, aiding students' personalization of their learning. Learning is the change in the way information is represented and structured in the mind and teaching is the support of effective processing, representing and structuring of information by the students' cognitive apparatus (Friesen & Feenberg, 2007). The question remains as to how the teacher can marry existing pedagogy with emerging interactive learning environments. Kozma (1987) suggested 'to be effective, a tool for learning must closely parallel the learning process; and the computer, as an information processor, could hardly be better suited for this' (p. 22). Digital tools can indirectly serve to mirror the learning process of the

student, having the power to shape and remodel cognitive phenomena. Friesen and Feenberg (2007) argue:

> Whether computer and information technologies are described as building knowledge, representing mental models, processing information, or amplifying or restructuring cognition, the underlying justification is the same. This technology gains its unique educational potential from its underlying similarity to cognitive processes and representations - to the similarly computational cognitive apparatus of human learners' (p. 727).

Rather than digital technologies being viewed as a *representation* of cognitive processing, digital tools are, it is argued, fundamentally *reorganizing* the mental functioning of students. Dillenbourg (1995) argues the need to 'consider the software and the learner(s) as a single cognitive system, variably distributed over a human and a machine' (p. 165). In other words, rather than having the computer simulate human intelligence, get humans to simulate the computer's unique intelligence and come to use it as part of their cognitive apparatus (Jonassen, 1996, p.7).

Rather than criticise today's student as being *dependent* on digital devices for learning, teachers should consider how digital technologies support the *development* of cognitive processes for knowledge acquisition and knowledge creation. For example, computer-based learning engages self-regulatory processes including planning, knowledge activation, metacognitive monitoring and regulation, strategy deployment and reflection. Understanding this connection between digital technology and enriched cognitive learning, Huang, Rauch, and Liaw (2010) noted a shift in web-based learning from conventional multimedia to a more immersive and interactive virtual-reality learning environment. From Barak's perspective (2009), this more immersive and interactive learning environment can assist learners in accessing information, developing ideas, communicating with others, making decisions regarding their learning goals or determine the support needed, intentionally choose problem-solving strategies and receive and use feedback from tutor and peer support. Johnson (2012) notes:

> The continuous improvement of interactive learning environments is the consequence of human capabilities. As a result of increased private and shared online opportunities for cognitive and social simulation, human capabilities are enhanced in interactive environments. Correspondingly, continuous improvements in theories of learning and development are the consequence of continuous improvements in human cognitive capabilities (p. 305).

It is clear that digital technologies can nurture self-regulated learning and develop student awareness of their metacognitive processes whilst improving student motivation.

2.2.2. Cognitivism and Creativity. Within a teaching and learning environment, a cognitivist perspective offers an ideal base from which to explore the fostering of creative liberty within an inquiry-based learning paradigm. Coupled with the freedom digital technologies contribute to unleashing creativity, the cognitive perspective allows us to view learning and teaching from a powerful lens – creative cognition. According to Finke, Ward, and Smith (1992) the creative cognition approach underlies creative thinking. They maintain that mental processes are the essence and the engines of creative endeavours. Smith, Ward and Finke (1995) affirm, from a creative cognitivist perspective, that creative thinking involves many aspects of everyday cognition, especially the ability to control one's own thinking (Barak, 2009). Hence inquiry-based learning draws considerable strength from aspects of cognitivist theory, and more precisely creative cognition (Smith, Ward & Finke, 1995). Barak (2009) states:

> The notion of metacognition deals with peoples' ability to be aware of and control their own thinking, for example how they select their learning goals, use prior knowledge or intentionally choose problem-solving strategies. Self-regulatory behaviour is highly correlated with an individual's motivation to handle challenging assignments, and with his or her internal satisfaction from being engaged in a task that contributes more to creativity than to receiving external rewards (p. 381).

The cognitive aspect of creativity is the consideration of how people *experience* the creative process and construct novel ideas. According to Guildford (1967), creativity is a two-stage process; initially, divergent thinking aims to collect ideas followed by investigating and evaluating ideas – convergent thinking. Sternberg and Lubart (1999) support Guildford's initial concept and add that the creative process has three aspects: firstly, *synthetic* in the ability to generate new, novel, and interesting ideas. Secondly, *analytical* in the ability to think convergently, to think critically and appraise as one analyses and evaluates thoughts, ideas and possible solutions and lastly, *practical* in the ability to translate theories into realistic applications.

In support of the concept of creative cognition and following from Sternberg and Lubart (1999) identification of three aspects of the creative process, Aqda, Hamidi and Ghorbandordinejad (2011, p. 261) identify activities that develop the three aspects of intelligence: 1) Students' analytical ability is

developed when they are challenged to compare/ contrast, critique, judge, evaluate or assess. 2) Their creative ability is developed when they are engaged in inventing, discovering, imagining, supposing or predicting. 3) Their practical ability is employed when they are asked to apply, use, implement, render or put into practice.

Hence, it is clear that developing students' creative process leads to a self-regulated learner. Such self-regulation is a significant outcome of inquiry-based learning, a process that lends itself to both formal and informal learning within a blended classroom approach. Students are challenged to anticipate likely outcomes of various directions and are open to restructuring their approach if adjustment is required. In achieving a solution, students must not only think of the problem, but also be aware of their thought processes regarding solving the problem. Barak (2009) suggests 'when individuals learn to use strategies, that could help in the process of problem-solving, they are more likely to be aware of their own thinking during the process of problem-solving and inventive design, and reflect on their experience' (p. 393). Teachers who encourage problem-solving and creative tasks indirectly aid students' development of metacognitive functions. Ultimately the role of the teacher is to increasingly guide the social contexts of digital technologies and their use in order for students to realise their creative potential.

2.2.3. Cognitivism and Assessment. If the developing of strong self-regulatory behaviour is a salient outcome of inquiry-based learning and if inquiry based learning is underpinned by the theory of cognitivism, then the question is begged. How do students perform when assessed from a non-cognitivist and non-self-regulatory perspective? What happens to the all-important lifelong skill of creativity when rewards become external? Collins and Amabile (1999) note that intrinsic motivation exists when fulfilment is reached by engaging in a task purely to find a solution to the problem. They consider that intrinsic motivation promotes commitment to work and encourages exploration, flexibility, spontaneity and risk-taking in invention and problem-solving, thus igniting creativity. However, when an individual engages in an activity to achieve an expected reward, beyond self-satisfaction from completing the task, the individual is motivated extrinsically. Typically in schools, assessment grades on high stakes examinations serve to extrinsically motivate students; ultimately undermining creativity. Maisura (2005) argues the interventions of recent governments in education have created a culture of

vocationalisation, standardization and *rubber stamp testing* which has all but killed the space for creative pedagogy, playful exploration and creative work in the classroom. Banaji and Burn (2007) warn:

> Depending on the motives of policy-makers or educators, the creative work of young people may be planned as, or retrospectively interpreted as, a form of political intervention, or, conversely, as an aesthetic exercise, a means of jazzing up a 'dull' literacy-driven curriculum (p. 65).

The challenge for educators is to design authentic learning experiences that spark students' imagination and intrinsic motivation whilst balancing the pressures for performance in state and nationalized testing.

Inquiry-based learning and the intellectualisation of creativity appear strongly grounded to cognitivist theory. One impact of digital technologies, combined with a blended-learning approach to teaching and learning, is a liberty for students to select a range of active learning experiences as they investigate and problems solve. Students develop self-efficacy through constructing solutions with inquiry-based tasks and it is this personalised construction of new knowledge that ties both cognitive and constructivist theories together in this study.

2.3. Constructivist Theories of Teaching and Learning.

Constructivism works hand in hand with the cognitivist theory of learning. The constructivist approach to teaching and learning suggests that meaningful learning is centred on the types of *experience* presented to students, the nature of *active learning* and the importance of *interest, autonomy and peer interaction*. Meaningful learning occurs when students are able to 'discover knowledge for themselves, perceive relations between old and new knowledge, apply knowledge to solve new problems, communicate their knowledge to others and have continuing motivation for learning' (Macedo, 2000, p. 12). Constructing knowledge is uniquely personal and develops best in social settings as students encounter modelling and mentoring. Inquiry-based approaches, when applied in classrooms, enable student-driven discovery experiences. Learning, defined by Shuell (1986), is 'an enduring change in behaviour, or in the capacity to behave in a given fashion, which results from practice or other forms of experience' (as cited in Schunk, 1991, p. 2). Therefore, learning

is dynamic and thus deep learning experiences occur when students are active. Constructivism is a theory that when contextualised around learning, grounds the inquiry-based learning as a pedagogy.

The constructivist approach to learning, unlike the behaviourist and cognitivist theories, suggest that humans create meaning rather than acquire it. Ertmer and Newby (2013a) note that educators who adopt the constructivist approach to teaching support learners as they build personal interpretations of the world based on individual experiences and interactions (p. 13). The focus of the teacher is less on delivering the content, and more on developing students' skills in navigating, understanding, interpreting and constructing meaning. Clancey (as cited in Etmer and Newby, 2013a) asserts that 'an interpretation of the current situation (is) based on an entire history of previous interactions' and thus learning is an ongoing and deeply personal process (p. 56). Effective teachers support self-directed learning by mentoring and guiding students with their own discoveries. Therefore, teachers who focus their teaching methodology on a constructivist approach will design strategies that encourage students to explore complex topics by igniting students' curiosity through problem-solving and construction of solutions. Constructivism gives inquiry-based learning authenticity as students are guided through the processes of researching, questioning, reflecting, analysing and illuminating or constructing new understandings. Encouraging cognitivist strategies, within a constructionist paradigm will enable students to plan, monitor and regulate their thinking processes while constructing knowledge. Blending these theories, it would seem, is essential to inquiry-based learning.

Bruner (1985) extends the personal constructivist approach and emphasises the importance of imagination and discovery for deep learning experiences. Discovery learning is the learning of new information as a result of the learner's own inquiry. The constructivist approach is not concerned so much with the content to be learned, but the processes required for the construction of knowledge. McInery and McInery (2002) state, 'The subject matter is not presented to the child in its final form, but rather the child, through their own manipulation of the materials, discovers relationships, solutions and patterns' (p. 108). Teachers can abandon their role as purveyors of knowledge and become facilitators of children's learning. The principles of Bruner's theory of discovery learning are evident within inquiry-based strategies.

2.3.1. Constructivism and Digital Technology. The different theories of learning extend far into the past with modern researchers continuing to grapple with understanding where knowledge

comes from and how people come to know. Ertmer and Newby (2013b) explain that learning is constructed 'through interactions and associations with the environment' (p. 5) and where inquiry-based learning is the preferred pedagogical approach, students must have access to as wide a variety of learning tools as possible; tools that permit these interactions and associations with the environment. For example, digital technologies has had a profound impact on the learning environment, fostering a participatory culture in which students are encouraged to think through possibilities and construct their knowledge using the prolific multimodal tools that are very much a part of their learning and social environment (Smith, Ward & Finke, 1995). Keeping this in mind, teachers who teach through an inquiry-based approach must ensure students have access to such interactive learning tools, keeping in mind the participatory culture students live and learn in. Digital technologies, thus, support inquiry-based learning, allowing students to access authentic content in a meaningful way while encouraging them to pose their own challenging questions for the purpose of constructing knowledge. On the other hand, teachers who adopt an empirical approach to teaching and learning focus on how to manipulate the environment in order to foster sensory impressions so the learner experiences the *proper* associations.

It is apparent that the structures of, and for academic learning, have dramatically changed. Learning is increasingly everywhere, with everyone and all the time. Vygotsky (1978) envisioned *blended learning* as he suggested that formal learning (within a structured learning environment) and everyday learning (informal and at point of need or discovery) are interconnected and interdependent. Today, classroom teachers can create digital spaces that support inquiry-based approaches to teaching and learning such as uploading relevant information in a variety of formats as well as providing spaces for student collaboration such as wikispaces, blogs, forums and chat rooms. The digital spaces that enable student collaboration, and hence student inquiry, are those that encourage students to share recalled knowledge, allowing them to support each other as they co-construct new knowledge. Not to exclude the teacher as mentor for learning, Solomon (2000) observed that digital technologies can also provide the intellectual scaffolding that an adult or peer might supply. It is very clear that the versatility of Web 2.0, the habituation of young people in digital spaces, and the adoption of constructivist teaching methods, such as inquiry-based learning, have radically changed how learners construct knowledge. Moreover, from the English teacher perspective of communicating across multimodal texts, using digital tools, within an inquiry-based approach, provides more

opportunities for interaction and association, with expanding opportunities to receive content, connect with others and share emerging understandings (Curwood & Gibbons, 2010).

2.3.2. Constructivism and Creativity. A constructivist approach to teaching is often associated with creativity and discovery, exemplified through inquiry-based approaches. McInery and McInery (2002) reflect on the Gestalt theory of personal constructivism and suggest learners personally construct meaning and see learning as purposive, exploratory, imaginative and *creative*; consequently, the learner has an intrinsic interest to solve a problem and make discoveries. As observed by Ferrari, Cachia and Punie (2009), *creativity* is often used in curriculum design, and consequently in implementation of practice. However, they warn, this is often with erroneous assumptions that align the processes with disciplines of the arts and narrowed to celebrate outstanding performances of those with an identified talent. As creativity is a process, and not an outcome, the emphasis within the class should be on allowing connections across different areas of knowledge (Ferrari, Chacia and Punie (2009). Boden (2001) identifies three different types of creativity: *exploratory creativity* as being the specific and technical knowledge that fosters knowledge acquisition, *combinational creativity* as being the production of new ideas by combining or associating old ones in new ways, and *transformational creativity* as a revelation and the generation of fresh and novel ideas. These articulations of creativity resonate with constructivist thinking.

It is important to reflect at this stage that the learning process and the processes required for creativity are synonymous. For example, Runco (2003) notes that 'creativity [is] the construction of personal meaning' while Craft (2005) views 'creativity as a form of knowledge creation' (as cited in Ferrari, Chachia & Punie, 2009, p. 20). Therefore teachers can facilitate personalised learning experiences where learners take control of their learning, and, subsequently, their creative processes. Taking control of their learning and by implication their creative processes are basic outcomes for an inquiry-based learning approach, recognising that through the inquiry-based learning model, activation in students of the five creative dispositions occurs. These five creative dispositions, identified by Lucas, Claxton and Spencer (2013), include: inquisitive, persistent, imaginative, collaborative and disciplined, and each are considered essential as students mine deeper and deeper into their quest to construct knowledge and to create solutions to questions posed.

From a constructivist perspective, students need teachers who will be innovative in their strategies to help students mine the ever-increasing content of the National Curriculum. Without disregarding the imperative of fostering creativity, Ferrari, Chachia and Punie (2009) assert that innovative teachers provide a:

> Nurturing environment to kindle the creative spark, an environment where students feel rewarded, are active learners, have a sense of ownership, and can freely discuss their problems; where teachers are coaches and promote cooperative learning methods, thus making learning relevant to life experiences (p. 22).

Thus, inquiry-based approaches to teaching and learning enable students to personalise their learning experience, opening classroom time for teachers to become mentors, meddlers, guides and team leaders as students work together or independently to discover solutions and design compositions in their construction of knowledge. Furthermore, inquiry-based learning from a constructivist perspective provides an environment for the elements of creativity - time, flow, interaction, suspension of judgment, and risk-taking - to flourish.

2.3.3. Constructivism and Assessment. Constructivist theory sheds light on the purposes and practices of assessment within formal education. The absolutist nature of state and national standardised tests trains for rote-learning and marginalises creative thinkers. Lucas, Claxton and Spencer (2013) considers the disconnect between creativity and the education sector practices:

> …the overriding agenda of school accountability grades, assessment systems and their league tables, new pay regimes, a sense of reduced professional freedom in making curriculum choices locally that competes with serious attempts at fostering creativity (p. 9).

Written examinations often occur in isolation and under time restrictions, which are at odds with the constructivist approach to learning. Macedo (2000) aligns with Dewey in advocating for democratic education where the production of a solution on command would not be rewarded, but rather individual creativeness would be praised and admired. Dewey held it to be illiberal and immoral to train children to work not freely and intelligently, but for the sake of the work earned (Dewey, 1916). The constructivist approach to assessment emphasises the importance of self-assessment and public presentation of work to improve performance as much as to measure it. Strategies for authentic assessment of inquiry-based learning include pupil profiles, samples of student work, journals and

portfolios, focused evaluation, self-evaluation and co-evaluation of a student's project that demonstrates understanding, skills and knowledge. Moreover, adopting a criterion-referenced evaluation gives greater opportunity for student involvement in their assessment.

In summary, constructivism aligns exceptionally well with cognitivist understanding of how one learns and offers a strong base from which inquiry-based learning can aid students creative construction of knowledge through strategies that place the learner at the centre of their learning. According to McWilliam (2009) by becoming a mentor, guide or meddler, or indeed a combination of all three, teachers can enrich their students' learning environment, offering them opportunities to develop as self-directed learners, as co-constructors of knowledge, and as creative and critical thinkers, taking full advantage of being a thoughtful member of a growing participatory culture.

2.4. Cognitivism, Constructivism and Action Research (Teacher-Researcher)

Craft (2005) advocates that teachers should allow the *co-construction of knowledge.* Esquivel, (1995) argues that teachers must be *reflective practitioners*, and Sharp (2004) asserts teachers are *supporters and facilitators.* Action research, by its definition and central principles, demand that teacher-researchers reflect on their practice. Reason and Bradbury (2001) define the purpose of action research as being 'to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities.' (p. 1). Action research is an inquiry into effective teaching methods and so the classroom teacher simultaneously models the processes required for learning alongside the students.

Chapter Three

Literature Review

The power of an inquiry-based approach to teaching and learning is its potential to increase intellectual engagement and foster deep understanding through the development of a hands-on, minds-on and 'research-based disposition' towards teaching and learning. Inquiry honours the complex, interconnected nature of knowledge construction, striving to provide opportunities for both teachers and students to collaboratively build, test and reflect on their learning (Simon, 1996, p. 5, in National Research Council's *How People Learn: Brain, Mind, Experience and School,* 2000).

In order to build on constructivist and cognitivist theories and to situate this study within the literature, this review explores how inquiry-based approaches to teaching and learning, facilitated through *a blended learning* structure, with a focus on students' composition and creative liberty, affects the motivation of students. Moreover, this review draws parallels between the creative dispositions and the processes required for learning. In addition, it explores the changing role of the teacher and the shaping of effective assessment practices within the creative response to composing texts.

3.1. Inquiry-based Learning and Student Motivation

An inquiry-based approach to teaching requires the development of lessons whereby students are challenged and self-motivated. Hattie (2009) describes inquiry-based learning as a series of processes whereby 'students are asked to observe and investigate a question, pose explanations of what they notice, collect and analyse data to support or contradict their theories before drawing conclusions and designing and building a solution' (p. 208). Inquiry-based learning, thus, is student-directed and based on independent intellectual confrontations and contributions.

Inquiry-based approaches to teaching and learning enable students to personalise their learning experience, self-selecting specific tools and strategies that work best to solve open-ended, problem-based and experiential tasks. These tools and strategies include digital technology, collaborating with peers and seeking guidance and support from teachers. Ertmer and Newby (2013a) add that,

some of the specific strategies utilized by constructivists include situation tasks in real world

contexts, use of cognitive apprenticeships (modelling and coaching a student toward expert

performance), presentation of multiple perspectives (collaborative learning to develop and

share alternative views), social negotiation (debate, discussion, evidence-giving), use of

examples as real 'slices of life', reflective awareness, and providing considerable guidance on

the use of constructive processes (p. 16).

Inquiry-based learning as a pedagogical approach endorses Ertmer and Newby (2013a) as inquiry-based tasks are grounded in developing *real world contexts* whereby students collaborate as researchers, reflectors, questioners, and analysers to co-construct solutions. Reflecting a constructivist approach to teaching and learning, the inquiry-based approach is anchored in learning in meaningful contexts, whereby there is an emphasis on learner control and the capability of the learner to manipulate information. According to Treadwell (2008),

There is an urgency for schools [teachers] to make the transition to the new paradigm as

learners have already made the transition and are becoming increasingly disengaged while they

wait for the education system to catch up to how they are learning outside of school (p. 11).

Uncertainty is the beginning of learning and no more so is this apparent than when students'

curiosity is aroused, and hence, discovery of new ideas. This is a central concept of inquiry-based

learning (Wilhelm, 2007), and along with human desire, helps learners to learn deeply and to

understand the world that they live in. According to Kuhlthau, Maniotes, and Caspari (2007), teachers

initiate the inquiry process by posing a fundamental question that serves as a trigger for curiosity and

investigation. Thus, students are encouraged to select and explore information and facts before

formulating a focus and presenting their findings. This open approach to the way knowledge is

illuminated supports the constructivist theory in that there is a need for information to be presented in a

variety of different ways, revisited at different times, in different contexts, for different purposes and

from different conceptual perspectives.

Inquiry, according to Treadwell (2008), is best undertaken as a collaborative experience,

through questioning, listening, debating, and validating before coming to a greater collective

understanding. Again, these are active terms and compliment the energy of learning as a *practice*: a

type of activity, underscoring how today's leaner requires experiences whereby they encounter high

levels of interaction and activity with immediate and effective access to information. For example,

Lenhart, Arafeh, Smith, and Macgill (2008), in reference to a creative writing task, note that if there is an audience, whereby young writers feel their compositions will make an impact, motivation for the topic explored will improve. Further, Curwood, et al. (2013, p. 683) note that students as writers thrive when given a diverse range of genres and modes by which to write. They assert that 'Instead of taking young people away from literature and literacy, online spaces and digital tools can motivate students in new and complex ways to engage with reading, writing and designing' (p. 684). Therefore, teachers who provide online spaces for peer collaboration also provide platforms for their students to write to a meaningful audience, and by doing so, provide opportunity for enhanced motivation. Hence, inquiry-based learning, within its theoretical frame of constructivism, and integrated into online collaborative spaces together with digital tools can heighten student motivation – a significant outcome.

3.2. Inquiry-based Learning and Digital Technology

Barlow (1996) envisioned the digital age would revolutionise the power-dynamics of old Industrial post-modern world. 'We are creating a world where anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity' (n.p). Barlow foresaw how technology would enable online collaboration of people all over the world and this shift in socialisation would have ramifications for politics and governance. Prensky (2001) comments on how the next generation belong to a cyber community that is profoundly impacting upon their learning experiences, 'More and more young people are now deeply and permanently technologically enhanced, connected to their peers and the world in ways no generation has ever been before' (p. 2). Prensky (2001), an advocate for the digitally connected learner, opened up the conversation on learning and digital technology reflecting upon Barolow's identification of the *digital natives*. Yet, despite Prensky's ground-breaking paper that was a forerunner for inquiry-based learning, together with the proliferation of digital technologies such as 1:1 laptops, tablets, interactive whiteboards, and the advent of the read-write web (Web 2.0), teachers continue to struggle to pursue pedagogy that supports social, inquiry-based and self-directed learning. As outlined by Garcia, Morrison, Tsoi and He (2014),

> The coupling of ICT, engaging pedagogies and engaged learning can be realized through
> effective change and innovation in schools. Nothing new in that, you may say, until you walk

into many classrooms and witness a sight that would be familiar to Victorian educators: rows

or grouped tables of children listening to the pearls of wisdom from the teacher and then

repeating them (p. 2).

Hattie (as cited in Garcia, Morrison, Tsoi, & He, 2014) remarks,

an important question is why we are so reluctant to change, even in the face of evidence that

our strongly held beliefs do not work. His answer is that change disturbs our comfort zone and

we may have a range of reasons for, and interests in, preserving the status quo. Indeed, he

reports that the nearer an innovation comes to the core of schooling, the less likely it is to

influence learning and teaching, leading to disengaged learners. He comments that teaching

methods have barely changed over the last 200 years (p. 2).

This presents a *disconnect* between authentic learning and student engagement, despite Prensky's clear message that digital spaces enable collaborative platforms, whereby, students can work together as they navigate through information, connecting to their peers and others, accessing a range of texts and a variety of tools, and, especially in the Language Arts environments, enrich the manner in which they create texts. It is Prensky (2001) who asserts that digital students prefer to learn by doing and are more likely to work amongst their own social networks rather than alongside formal educational communities (Prensky, 2001). In such an environment, teachers no longer serve, nor should they, as the only significant reading and writing mentor.

There is an emerging field of research exploring how the brains of digital natives may be structurally different (Greenfield, 2004; Tapscott, 2008; Bullen, Morgan & Qayyum, 2011), implying differences in their thinking patterns and learning needs. Prensky (2001) explains that digital natives are 'accustomed to the twitch-speed, multitasking, random-access, graphics-first, active, connected, fun, fantasy, quick-payoff world of their video games, MTV and the Internet' (p. 5). The implication is that the digital culture of the modern world has fundamentally changed the processes of learning. It is obvious that students use digital tools more and more to access and read information, however, more importantly, the learning process has changed: students are now composing, creating and writing online. It follows that effective teachers recognise that *how* to learn has changed and subsequently, adopt practices that foster deep learning experiences.

Digital compositions that are posted in public spaces enable different audiences to collaborate and have access to the author, thus facilitating ongoing commentary and continuous clarification and enrichment of ideas. Curwood, et al. (2013) reflect that having an authentic audience online is a motivator for young writers. Similarly, Magnifico (2010) comments 'when writers write, they are writing to someone and for some purpose' (p. 173). Having a peer audience can serve to influence and motivate young writers. She asserts that,

> Novice writers become more expert within a writing community, then, not just by learning a series of increasingly complex schemata and thinking processes but by becoming active members, taking on common practices and values - and, critically, being seen by an audience of other members as knowledgeable participants and, eventually, as experts (p. 174).

Within inquiry-based learning, digital technologies enable an interconnection of texts and graphics for exploration. Information is organized in a non-linear, hypertext style and increasingly expressed in visual media to convey experiences (Greenfield, 2004). Gannon (2011) supports Greenfield's thesis and observes, 'Young writers take up these resources not as 'products' like books but textual 'assets' for playing with and generating new textual artefacts' (p. 187), an important meaning-making process within inquiry-based learning. These meaning-making opportunities blossom in the learners' social context, involving talking and listening, interacting, collaborating and working towards agreed goals. Thus, according to Jensen (2006) and supported by Chen, Gallagher-Mackay and Kidder (2014), the digital learner now has many and varied opportunities to affect the content being published, and as a consequence, informal learning has become increasingly social as attested by Curwood, Magnifico and Lammers (2013): ;As a result of greater accessibility and affordability of Internet-connected devices, young people are increasingly using online spaces to collaborate and communicate' (p. 678). Sharples, Taylor and Vavoula (2005) agree that learning has become a 'continual conversation with the external world and its artefacts, with oneself, and also with other learners and teachers' (p. 7). Students' ability to 'go public' has helped them learn together, to express one's creativity and offer commentary on other published work, through a range of collaborative digital platforms, including YouTube, blogs, wikis, social networks (Schwartz, Lin, Brophy & Bransford, 1999). Furthermore, Ohler (2007) affirms that 'success in the digital age, both personal and professional, lies in understanding that digital technologies provide one of the greatest imagination creativity amplifiers humankind has ever designed' (p. 13). The modern student experiments, reshapes and collaborates

with digital texts in increasingly innovative and creative ways. One outcome from working with digital tools is the development of those characteristics required for creativity. Lucas, Claxton and Spencer (2013) identify five core dispositions for the creative process: persistence, imagination, collaborative, disciplined and inquisitive (p. 16). Inquiry–based approaches to teaching and learning, facilitated through an online platform, supports the development of these dispositions.

3.3. Inquiry-based Learning and Creativity

Within the context of inquiry-based learning, and supporting the role of digital technologies in fostering students' creative liberty, is the work of Lucas, Claxton and Spencer (2013). They identify five core dispositions for the creative process: persistence, imagination, collaborative, disciplined and inquisitive (p. 16). Certainly research suggests that schools need to nurture creativity and innovation to grapple with the emerging challenges in today's participatory culture (Jensen, 2006; Garcia et al., 2014). The creative process itself, as identified by Lucas, Claxton and Spencer (2013), begs to be integrated into pedagogy that inspires constructivism and encourages cognitivist thinking, and that supports creative liberty through personalised learning. This means shifting pedagogy from teacher directed to student directed in order for students to identify, co-create and own solutions to the pressures of globalisation, distressed environments, new technologies, world recession and trends of international demographics (Finger, Russell, Jamieson-Proctor & Russell, 2007). Certainly, Jensen, Purushotma, Clinton, Weigel, and Robison (2009) would warn that without an emphasis on a participatory culture where the barriers are low for enabling creative expression, the support is strong for creating and sharing one's ideas/ works with others, where informal mentorship can pass along what is known to novices, and where members believe their contributions matter in a socially caring environment, then real learning, deep collaboration and freedom to be creative falter. This is an important lesson for any teacher adapting practices toward creating an inquiry-based learning environment.

Creativity has been identified as one of seven capabilities within the mandatory school years. Doecke and McClenaghan (2011) argue, 'Within the discursive world of the Australian Curriculum and Assessment Authority, the word (creativity) has meaning as one of seven *general capabilities* that students need in order to succeed in life and work in the twenty-first century' (p. 39). Lucas, Claxton, and Spencer (2013) identify personal, social and economic reasons why education policy is promoting

the status of creativity. They argue that creativity 'improves students' self-esteem, motivation and achievement, preparing pupils for life and enriching their learning experiences (p. 9). Furthermore, creativity is needed to solve problems and challenges beyond the classroom and enables the emerging flexible workforce 'to compete in a global market' (p. 9). Effective teachers need to teach the expertise of their subject area whilst developing the creative-thinking skills of their students. Rather than learn formulaic answers or repeat theoretical information, students need to be equipped with skills and challenged by activities that propel transformative knowledge construction. Within the secondary English classroom, creativity is integral to the inquiry process (Longo, 2010). Inquiry-based compositions illuminate the students' understanding and knowledge of the ways literature and language mediate experience and social relationships. Students and teachers can engage in creative and imaginative activities to explore possible 'imaginative recreation', 'textual intervention', 'creative extension', 'springboards', 'dependent authorship', and 'critical-creative' (Gannon, 2011), especially where there is an emphasis on new combinations, pastiche and intertextuality.

The activity-based English classroom nurtures student collaboration within an open-ended inquiry-based approach to teaching and learning, ensuring that the creative dispositions as identified by Lucas, Claxton and Spencer (2013) are fostered. As students grapple to problem solve the inquiry question, these creative dispositions, synonymous with those characteristics required for learning, prevail. That is, in order to learn, students must demonstrate discipline, persistence and imagination, collaborating with teachers and peers to solve the inquiry task.

How does the English teacher ensure that their students are learning in a creative and dynamic environment on their terms? Teachers need to support students as they grapple with finding meaning and seeking solutions to divergent and evaluative questions. Greenfield (2004) predicts that 'education will be transformed entirely into an experience rather than a thought process' (p. 64). Lehrer (2012) explains that creativity requires a great deal of work, and 'There's no such thing as a creative type… as if creative people can just show up and make stuff up. It's about taking an idea in your head and transforming that idea into something real. And that's always going to be a long and difficult process' (p. 69). Effective teachers mentor and support students as they wrestle with a concept, navigate through information before creating possible solutions and answers that illustrate their understanding and knowledge. Inquiry-based approaches to teaching and learning offer a platform for

students' directed-learning and immersive experiences. Powers (2010) reflects that creative geniuses have been celebrated for an unusual capacity to be 'grasped' by some idea or mission and for their inner engagement that drives them to pursue learning. Csikszentmihalyi (1990) explains that to 'experience harmony is to experience the flowing deep state of conscious concentration; thoughts, intentions, feelings, and all the senses are focused on the same goal (p. 41). Students who experience *flow* emerge stronger and more confident because their energy has been invested successfully. Lehrer (2012) acknowledges there is something scary about the flow experience, however the unnerving experience is an extremely valuable source of creativity. As well, Robinson (2009) notes that given all the uncertainties we face in the world, the imagination and creativity are the powers we will need probably more than any else to make sense of the future. Perhaps it is Ertmer and Newby (2013a) who give the best summary and advice for teachers who are really passionate about moving from teacher directed to student directed learning. They conclude that:

> The focus of constructivism [a theory that supports inquiry-based learning] is on creating cognitive tools which reflect the wisdom of the culture in which they are used as well as the *insights and experiences of individuals*. There is no need for the *mere acquisition of fixed, abstract, self-contained concepts* or details. To be successful, meaningful, and lasting, learning must include all three of these crucial factors: *activity* (practice), *concept* (knowledge), and *culture* (context) (p. 14).

However, creative, innovative, and self-directed approaches to learning in schools often conflict with local and national assessment requirements.

3.4. Project-based Learning and Summative Assessment

The standardised testing initiatives of state and national governments pressure both teachers and students to conform to activities and questions through rigid response mechanisms.   (Fehring & Nyland, 2012, p. 10). According to Morrison and Lowther (as cited in Finger, Russell, Jamieson-Proctor & Russell 2007, p. 206), standardised testing is 'limited in measuring the application of more complex skills and processes such as problem solving'. Robinson (2009) cautions the role of standardised tests as a measure of student achievement as they tend to have a limited choice of correct answers, often only one or two. Browns, Collins and Duguid (1989) concur and suggest:

The system of learning and using (and, of course, testing) thereafter remains hermetically sealed within the self-confirming culture of the school. Consequently contrary to the aim of schooling, success within this culture often has little bearing on performance elsewhere' (p. 34).

Constructivists view the learner as not only being an active processor of information; the learner elaborates upon and interprets the given information. Learning objectives are neither stringent nor specified, as often dictated by multiple-choice styled standardised tests. The paper-based concept of assessing reading, writing and spelling is an approach that *narrows the emphasis of literacy* as only that which can be measured, quantified, analysed and compared (Fehring & Nyland, 2012, p. 10). This is an anathema to inquiry-based learning as a preferred pedagogy in today's participatory learning culture. Within the English class, the reality of inquiry-based learning lies in promoting multiple perspectives before formulating an independent conclusion. To be faced with summative assessments that require of the student to conjure rigid responses as opposed to exercising their creative liberty through risk taking, safe in the knowledge that they are confidently predisposed to respond to content covered using self-selected tools, risk disenfranchisement. Looney (as cited in Lucas, Claxton, & Spencer, 2013) warns that 'formative assessment valuing creative dispositions is at odds with the performance agenda of national testing, and is therefore subordinated (p. 9) while Menter (as cited in Lucas, Claxton, & Spencer, 2013) explains that schools have 'a sense of reduced professional freedom in making curriculum choices locally that competes with serious attempts at fostering creativity (p. 9). Teachers must balance these standardised tests that measure what a student has learned, with inquiry-learning tasks designed *for* learning experiences.

The constructivist approach to education, in line with the cognitivist theory of learning envisages students working in rapidly changing environments, building understandings from diverse perspectives and demonstrating collaborative expertise. Cumming, Kimber and Wyatt-Smith (2012) reflect on studies in Canada, Singapore, United Kingdom and Australia and found that schools needed to adopt more systematic approaches to instruction and assessment in order to effectively and creatively employ available technologies. Cumming et al. (2012) argue, 'Modern-day literacy demands require an expanded definition of literacy that endorses fluency, accuracy and communicative clarity, not just in spoken and written texts, but also in multimodal texts created with new technologies' (p. 10). Inquiry-based learning with digital technologies offers students exciting new modes of expression;

short films or games, digital stories, audio/ videotaped performances, illustrated picture books or multimodal interpretations of literature. Ironically, however, as McClean, Rowsell and Lapp (2011) note,

> Composing or creating multimodal texts is not part of the framework for standardised, national tests that students are required to take. As such, the nature of assessment and its formats act as gatekeepers to a standard of competence/ proficiency, students' access to higher education and careers, and what academic literacies are valued (p. 11).

There appears to be a growing divergence between the method of high stakes testings and emerging sound practices for learning. Gresham (2014) questions, 'If students seem to work best collaboratively and with digital technologies to construct creative responses that bolster confidence and pride with their abilities, why is this platform too often denied under formal assessment?' (p. 54).

In support of Gresham's concern, Magnifico (2010) articulates the issue faced by teachers who often feel bound to implement classroom strategies to bolster performance in high stakes testing:

> Students will be evaluated by the means of standardized assessments (and teachers) spend a large part of their teaching time focusing on the writing skills required… grammatical conventions, step-by-step organization, and a clear delineation of writing purpose. In terms of long-term educational value, this time would likely be better spent helping students engage in rich writing contexts and realizing the communicative and argumentative potential of writing, but these skills will not necessarily help students pass required rubric-driven assessments successfully (p. 175).

The high stakes testing design, time based, paper-based, independent and silent examination often denies the student to exercise those valuable skills required for open-ended, problem-based inquiry questions that may be best solved collaboratively with creative responses using digital tools. Loveless and Ellis (as cited in Garcia, Morrison, Tsoi, & He, 2014) reflect 'The impact of ICT and new technologies is to shift the emphasis from teaching to learning and from the product to both the process and product of learning. Students need to focus on how and where to acquire, store and utilize knowledge rather than to remember it all' (p. 37). Research suggests that the format in the way we assess senior English students of their knowledge and understanding of course content essentially needs to change for the modern social, inquiry-based and self-directed learner. Cumming et al. (2012) argue,

English teachers need to extend their print-dominant perspectives on texts to include distinctive features of multimodal, screen-based texts, especially how the different modes are required to work together to create meaning. This would suggest that what we have traditionally come to know about criteria and standards in assessment do not necessarily carry forward into today's digital world (p. 13).

It is obvious that change in summative assessment practices is needed to pair with pedagogy that prepares students for living and working in a participatory culture; to enable them to cope in a global society of creative liberty and critical thinking. Administering multimodal assessment rubrics that both guides students through their inquiry whilst also providing teachers with a clearer and progressive understanding of students' knowledge, skills and needs is critical if we are to offer the best platform to achieve assessment results that reflect their knowledge, skills and abilities.

In summary, learning tools have changed, and the way learners learn has changed; subsequently, the principles of teaching and assessing need to change. The modern student is expected to emerge with the skills of critical thinking, problem solving and creativity. The inquiry-based learning experience, facilitated through online delivery of course content, propelled by curiosity and creativity, can foster these skills of deep learning. Empowering students to select the learning tools that work best for them, including digital technologies, to collaboratively problem solve open-ended inquiry-based questions develops the critical and creative capabilities of learners. Typically high stakes testing deny students the platforms that are proving to enable them to apply knowledge of course content to problem solve using the creative processes. Hence this action research seeks to provide evidence in giving insight into the many unanswered questions about summative assessment of student's knowledge and skills through inquiry-based creative tasks. This action research explored the impact of providing a summative assessment task, emulating the collaborative and digital environment empowering today's learner, to best demonstrate their understanding of course content and multimodal literacy skills. This study examines the effects of assessing today's learner on their terms as opposed to evaluating a student's performance under the archaic system of in-isolation, paper-based and time pressured examinations.

Chapter Four

Research Methodology

4.1. Action Research as Qualitative Inquiry

As schools grapple with government policies, expectations of parents and the rapidly changing workplace, there is a need for teachers to not only reflect on educational theory and policies but to contribute to public discourse on effective teaching. Thus, teachers need to continue their learning journey and reflect on their practice, noting *what works* while remaining open to different ways of helping students learn. In his drive to help teachers build learning power, Claxton (2002) urges teachers to 'see themselves as willing learners, and interested in becoming better at their own learning' (p. 113).

One way in which teachers can effectively scrutinise their practice is through action research. Groundwater-Smith (2005) suggested that action research is 'an emancipatory project for education; one in which practitioners engage with action research as a form of critical educational science in order to contribute to communities of practice governed by principles of honour, trust and social justice' (p. 331). However, despite action research being by the teacher, through the teacher and for the teacher, as a methodology it has its detractors (McNiff, 2002, online, Introduction para. 3). Brown (2002) identifies common criticisms of the action research methodology as lack of time, validity, and findings that are not generalizable. It could be argued that the full time teacher who manages densely packed curriculums and commitments to co-curricular activities has limited time to invest in rigorous research that produces trustworthy findings that may have relevance beyond their classroom or school community. However, it is important that classroom teachers can access a research methodology that formalizes their reflective practice; a practice that most teachers perform intuitively and hence, can inform educational theory and policy. Furthermore, a collaborative community of teacher-researchers has the potential to unearth shared findings that are meaningful and transferable. Elliott (2009) argues that:

> …when communities of teacher-researchers develop such descriptions in disciplined conversation with each other, they will increasingly experience an 'overlapping consensus' about action possibilities, and with it a capacity for co-ordinating the development and testing

of action-hypotheses across their classrooms. Such a process is what constitutes rigour in action research rather than any adherence to methodological dogma (p. 36).

Duke and Martin (2011) suggest that 'no one kind of research is less than research of another kind' and that 'all research is defined as scientific' (p. 12). In defence of action research as a bona fide methodology, there is an implicit understanding that it has two components: research and action. The *research* develops the teacher's understanding and knowledge of emerging theories of sound practice and the *action* fosters intervention in the classroom. It is a naturalistic inquiry process, and because of its qualitative outlook, the students' experience of learning becomes an important element, as noted by Stringer (2004) who highlights the interpretive value of qualitative data that allows detailed descriptions of behaviour and attitude change.

Action research can be considered a tool for teachers by which to understand and improve their practice; the findings from practitioner action research can become the basis for refining teaching strategies and reflecting on teacher practice. Groundwater-Smith (2011) suggests that the purpose of action research is 'to uncover, discover and recover practices in a variety of contexts and through a variety of means and render them available for public scrutiny and debate' (p. xxvii). This type of evidence-based research ensures that lesson designs are in response to the learner's processes. Using action research at the practitioner level allows teachers to readily share the results of their action research projects, increasing the potential to have an impact on teaching and learning even wider than the school community, including state, national and international audiences.

Thus, it would follow that findings from the cyclical approach of practitioner action research have the potential to influence educational theory. As a process, action research allows current pedagogy, as applied in the classroom, to be scrutinised as well as analysed, which, as suggested, may lead to established theories being challenged, propelling research into further action (Campbell & Groundwater-Smith, 2010, p. xxvii). As it is open-ended and a continuous developmental process, the teacher-researcher is led to re-imagine, speculate and re-create interpretations, developing clear and authentic insights into how students learn and are learning thus allowing the teacher-researcher to interrogate current practices (Visser, 2007). Waters-Adams (2006) adds, 'As an informed way to improve my teaching practice, action research drives a dialogue between my action and the intentions

behind my actions' (n.p). Hence, teachers who cast themselves as learners alongside their students model the reality that they too are learners of the content that they teach.

Stenhouse (1983) advocates that the classroom teacher should not be seen as an authority on the content that they teach. Rather, the classroom teacher should be viewed as the facilitator of the content to be explored and learned. He argues that:

> Just as research in history or literature or chemistry can provide a basis for teaching those subjects, so educational research can provide a basis for teaching and learning about teaching. Professional skill and understanding can be the subject of doubt, that is of knowledge, and hence of research (p. 18).

Ultimately, action research demands that teachers listen to students' voices, observe students' behaviours, examine students' work and reflect upon the approaches to teaching and learning. The process of teachers disseminating the results of action research is a way of enabling students to participate in potential reforms in teaching for meaningful learning. This is a powerful outcome of teacher-led action research. Allowing students the opportunity to engage in critical conversations about their learning experiences can be a bridge to the otherwise divided spaces of teacher and learner. Fielding (2004) asserts that 'students and teachers need each other, need to work as active partners in the process if it is to be either worthwhile or successful' (p. 310).

In summary, action research is one method that gives teachers, the intended agents to implement curriculum, a credible voice to influence and direct policy. Claxton (2002) recognises that a teacher's action research has a 'cumulative effect, not just on the individual teacher, but on the culture of the school as a whole' (p. 113). Elliott (2009) comments that 'Education action research 'findings' will take the form of 'universal rules of thumb'… these rules are never fixed and unchanging, since their applicability to new and changing circumstances will need to be continuously tested' (p. 36), giving support to Hargreaves (1999) who notes that:

> Knowledge validation is capable of greater sophistication in schools where teachers have themselves undertaken research for a higher degree and are able to apply investigative skills to their practices in a climate of identifying and sharing what works (p. 127).

Action research offers a naturalistic and authentic inquiry into different approaches of teaching for effective learning. In addition, action research empowers teachers to stringently implement and

evaluate emerging theories of sound practice for the purpose of their own professional development as well as sharing these findings further afield: within the school and wider educational community.

4.2. Rationale

Action research was chosen as the methodology for this research for several reasons. Classrooms are ideal spaces in which to test educational theory and teachers, in charge of these classrooms, are well-equipped to conduct research. Thus, action research enables teachers to position themselves as learners within a professional knowledge landscape. In light of the above, action research, as a method of inquiry, allowed me to examine my approach to learning and teaching through the inquiry processes. It allowed me to hear the voices of my students; rich data that, when analysed, informed my teaching and guided me in adjusting my own practice as a reflective teacher.

Considering the above within the context of my research questions; 'What is the changing role of the teacher as students adopt the inquiry-based process of learning?' and " How is student motivation within a summative assessment task influenced by creating a project in a format and style of their choosing?', action research was the most suitable methodology for my study. As the teacher-researcher, action research provided a robust framework from which to investigate innovative approaches to teaching, as well as how to design improved learning experiences for my students. As the classroom teacher, in the role of reflective practitioner, the cyclical nature of action research allowed me to engage in iterative data analysis and adapt my pedagogy as I sought to respond to the characteristics of learning, discover regularities and seek comprehension of student processes. As a method of inquiry, it enabled me to analyse how students responded to the inquiry-based approach in learning the Preliminary Advanced English Higher School Certificate course. It also enabled me to investigate how student motivation for learning was affected by allowing my students to create projects in a format and style of their own choosing within an inquiry-based teaching and learning approach; an approach grounded in principles of honour, trust and social justice as students self-regulate their own learning whilst working collaboratively to solve problems.

4.3. Ethical Considerations

Permission, by the University of Sydney Human Research Ethics Committee was given (see Appendix A) to conduct this action research within a school and using students as my participants. In

addition, the school granted their permission and offered support for this study to be conducted (see Appendix B). The Australian Government National Health and Medical Research Council Statement on ethical conduct in human research (2014) notes, 'In educational research, discussion with the school community should be built into the research design.' (p. 50). The proposed research questions and designed approach emerged through close liaisons with the school executive, school research support staff, the Head of English as well as the university supervisor. When working with school-aged people, it is essential that the young person exercise his or her right to be a volunteer participant. Groundwater-Smith's (2011) argues that:

> Ethics is not just about feeling good, or about a particular regulation or social code, or about following the law; it is about behavior that is motivated by understandings of, among other things, respect, fairness, compassion, tolerance, honesty, courage, integrity and prudence (p. 10).

Importantly, the teacher explained that students could engage with this project without participating in the research. That is, the student would have complete access to all resources and the full support of the teacher with their learning without being a subject of the study. Each participant was asked to sign a permission note (Appendix C), separate to his parent/caregiver, to agree to be included in this research with the understanding that his or her contribution would be confidential and that he or she could withdraw at any point. An information letter was sent to each parent/caregiver informing them of the purpose and length of the research. Each parent/caregiver was also asked to sign a permission note (Appendix D), for their child to participate in this research. Giving both the participants and parent/caregiver independent permission notes complied with The Australian Government National Health and Medical Research Council Statement on ethical conduct in human research (2014), 'The child or young person's particular level of maturity has implications for whether his or her consent is necessary and/or sufficient to authorise participation'. (p. 50). The participants were informed verbally and in writing that they could withdraw from the research at any time and any data collected would be destroyed.

Anonymity in qualitative design is essential to protect each participant and to ensure confidentiality. Wiles, Crow, Heath and Charles (2007) explores the complex ways in which social researchers manage issues of anonymity and confidentiality. They argue:

Complete confidentiality in research is impossible because the purpose of gathering data is to

obtain new knowledge, to synthesise this knowledge and to disseminate it. There are many

reasons why researchers might discuss the data they have generated such as: to develop

their thinking; to disseminate their findings; to assist another researcher working on a similar

topic or for teaching purposes. Researchers cannot know the extent to which it might be

possible for the people to whom they are talking to identify an individual by what they say and

thereby the contexts in which confidentiality is breached (p. 426).

The students were informed and reminded that deliberate disclosure of a participant's details may

arise should the teacher researcher feel a legal need to break confidentiality. For instance, if a

participant was at risk of harm or involved in harming others, then the researcher would consciously

break confidentiality for the best interest and safety of those involved. The students were informed and

reminded that accidental disclosure may occur in discussion of data with mentors supporting the

research or others interested in the research. In order to protect the participants from accidental

breaking of confidentiality, each were given a pseudonym. In line with the recommendations of Wiles,

Crow, Heath and Charles (2007), regular debriefing with professional researchers sought to develop

the teacher researchers ethical literacy for the purpose of making appropriate ethical decisions in the

best interest of research participants within the context of the study.

Any images or digital footage produced, as evidence to support the research, was exclusive of labels

and names and all participants in the research were identified by a code name known only to the

researcher. Electronic files were password protected and remained on the researcher's personal

computer until the research was complete. All participants were assured that any contribution or

identification would be destroyed after the research was completed and, in line with University

regulations, destroyed after seven years. Participants will always have access to their contribution if

so requested.

4.4. The School

This study was undertaken at a boarding and day school for over 1600 boys from middle to

high socio-economic families, ranging in ethnic, rural and urban backgrounds. The school was

established in the early decades of the 19th century and is located in Sydney, Australia. Whilst the

school has a strong focus on academic achievement, it prides itself on developing a boy's character. There are many programs designed to genuinely cultivate a sense of altruistic leadership, appreciation for the arts, pride in athletic prowess and spiritual fulfilment. The school is committed to being a leading school and encourages teachers to take risks in trying innovative approaches to engage students in their own learning. To encourage its students to remain motivated and engaged learners, the school was proactive in integrating digital technologies into learning and teaching. At the time of this research, the school had 118 interactive whiteboards and fifteen computer laboratories running both Windows and Mac desktop operating systems. The school's *bring your own device policy* allowed students to connect to the wireless network and the school's fully functional 1:1 laptop programme included all students across the senior school. To assist teachers with integrating digital technologies into effective teaching and learning programs, the school employed over fifteen ICT staff. It is clear that the school encouraged teachers to be learners. The fact that the school executive support action research as enriching professional development guiding education reform is acknowledged.

4.5. The Teacher-Researcher-Learner's Role in the Study

I completed my Bachelor of Education in 2002 and had been teaching English at the school for eight years at the onset of this study. I was a member of the ICT Steering Committee and shared responsibility for the professional development of staff as teachers integrated Smartboard technologies and laptops into the classroom. Previous to this research study, I had completed two other action research projects at the school; the first explored the impact of integrating digital technologies on boys' engagement in English lessons. Following this action research, I explored how digital technologies might foster creativity in students. Having observed the improvement of boys' motivation and creative approaches to learning with digital technologies, I was eager to observe the impact of introducing inquiry-based learning involving summative assessment. My role in this study was to act as team leader, project manager, coordinator and facilitator of student directed inquiry-based learning (Stringer, 2004). I was keen to understand if by adopting a more democratic and participatory role, would quality of my relationship with my students change, encouraging a more motivated and engaged group of learners. I worked with my professional mentors in clarifying issues and concerns, acquiring information, interpreting the data through different lenses, analysing the data, constructing reports and formulating the implications for pedagogy.

This study was awarded a $3000 grant from the International Reading Association. Some funds paid for professional transcription of filmed recordings while the remaining funds awarded were allocated to the employment of a support teacher to relieve me from some additional duties, so that I could give the required focus to the gathering and analysis of data. The school provided additional support staff to assist with the film recording of classroom lessons. In addition, one of the school's teacher librarians, as an advisor for The International Boys' School Coalition action research team, offered her continual support with this study.

4.6. The Participants

The research was conducted with a Year 11 Preliminary Higher School Certificate Advanced English class. The Preliminary Higher School Certificate is the prelude to the final high school year, whereby students complete examinations at the end of their senior secondary schooling. Thus, the Preliminary Higher School Certificate is designed to prepare students for their final year of study and examinations for graduation. All students in the class volunteered to participate in the research. The 18 boys (see Appendix E) who participated in the study were approximately 17 years of age and considered to have average ability in the subject.

4.7. The Student Inquiry-Based Project Explained

The students were to compare and contrast how two stage productions represented empowerment. Students analysed the construction of Shakespeare's *Henry Vth* and Jack Davis's *The Dreamers* and, specifically, how the different characters were empowered or disempowered. In their investigation, students examined how, within the historical context, values can be projected differently, enabling some to feel empowered while others feel disempowered. The students had nine weeks to complete the inquiry and present a project illuminating their knowledge and understanding of the concepts studied. The inquiry-based question posed was 'How do William Shakespeare and Jack Davis shape empowerment and disempowerment in their respective texts?' Each student created timelines; setting their own activities for classwork and homework. They selected tools from the resources available to complete each stage of the inquiry.

I flipped the entire course content onto a digital platform in order to adopt the role of mentor in the classroom while students adopted a self-regulatory style in their approach to learning. At the

commencement of study, students were given one 45-minute lesson introducing both the concept of inquiry-based learning and their digital learning platform, *iLearn*, commercially known as *schoolbox*. iLearn enables teachers to support self-directed learning by mentoring and guiding students with their own discoveries as they navigate through course content in order to solve problems and devise solutions. iLearn is essentially a collection of folders linked together through a web-based interface. The most commonly used folders are *class pages* which are private to only those students in that class. Every folder can display a webpage that can be customized to add extra functionality: audio files, movie files, wiki spaces and forums. I established a resource-rich iLearn site for the students to navigate, investigate and contribute to as they made discoveries.

The homepage (see Figure 1 & Figure 2) was primarily focused on directing the students to the inquiry process and supportive elements of the digital platform. In addition, the homepage also included an RSS feed, in the lower right hand side, to indicate any new activity on the site and a *timer countdown* that gave days hours and minutes before the presentation of projects was to commence.
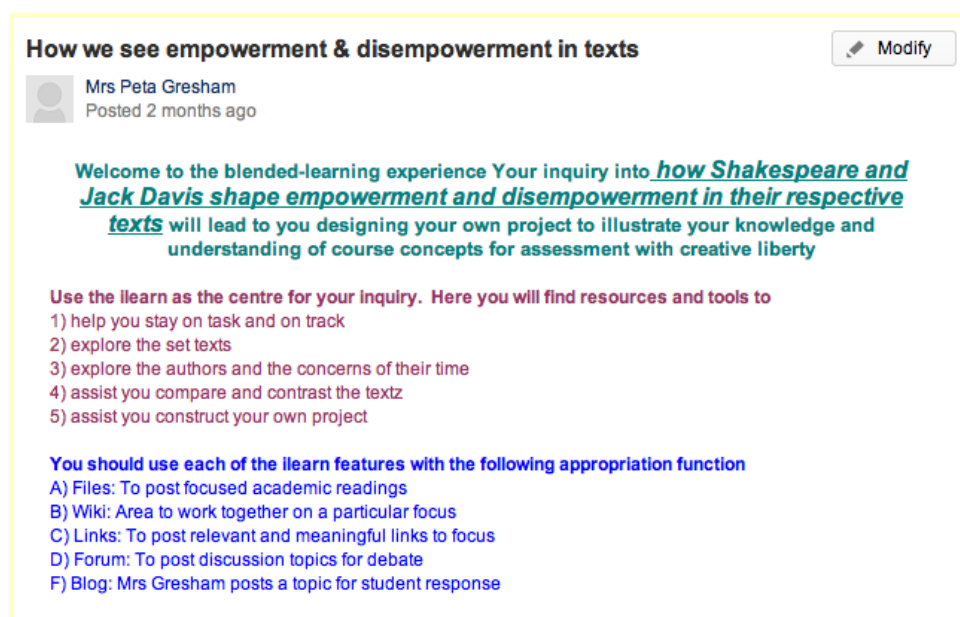
Figure 1. Photograph of iLearn homepage. This figure is a screenshot of the upper iLearn homepage instructing students how to use the different features of the online learning space and direct students towards inquiry-based activities: researching, questioning, reflecting, analysing, and constructing a solution*.*

The class iLearn homepage offered a series of core links that would support students through their inquiry (see Figure 2). These included subpages dedicated to a) introducing and explaining inquiry-based and project-based learning, b) Shakespeare's *Henry Vth*, c) Jack Davis's *The Dreamers*, d) how to compare and contrast texts, e) project-based learning and guides to creating different text types, f) explanations of the formative and summative assessments for this unit of work.
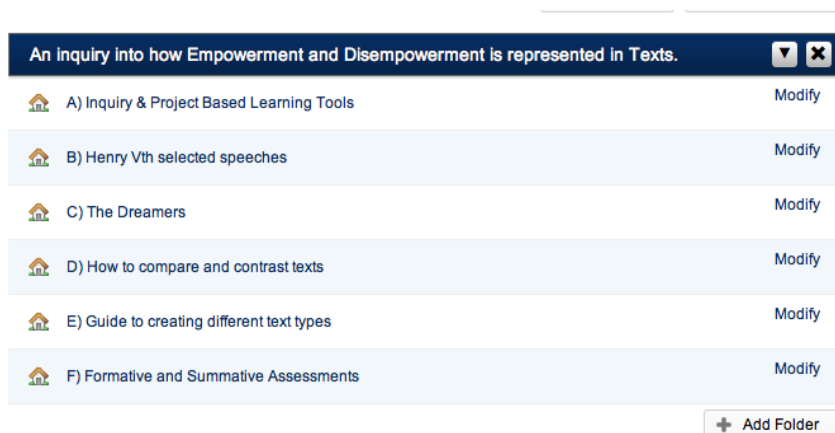
Figure 2. Photograph of iLearn homepage. This figure is a screenshot of the lower iLearn homepage. The six different folders, on the homepage, served to direct students to a range of tools supporting their conceptual inquiry.

Each subpage offered links to credible and meaningful websites, audio files, published academic readings, YouTube documentaries and film adaptations as well as offering collaborative spaces for student conversations in the forms of chats, wikis, blogs and forums (see Figure 3). Furthermore, each subpage included an online space for the publication of filmed teacher lectures and blogs (see Figure 4).
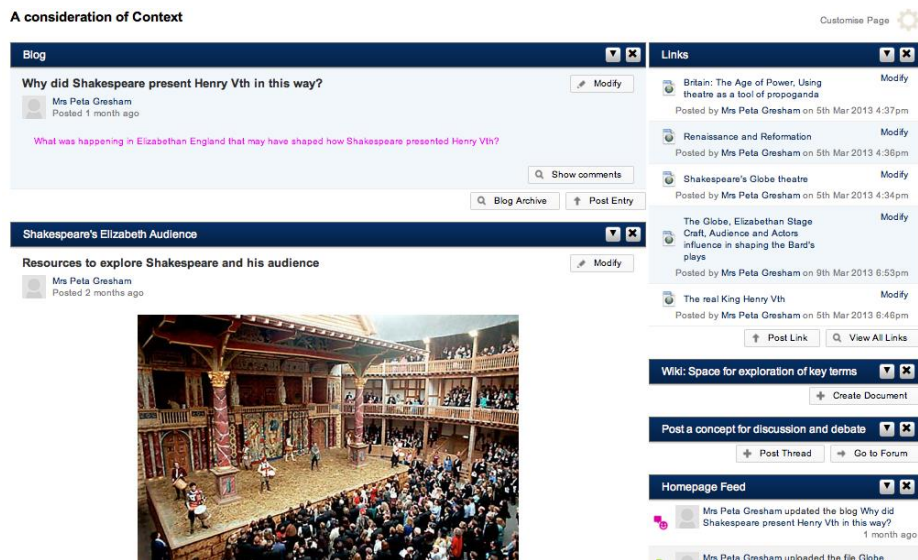
Figure 3. Photograph of iLearn subpage. This screenshot is an example of a subpage offering specific course content indicated by the title and space for learners' to collaborate.
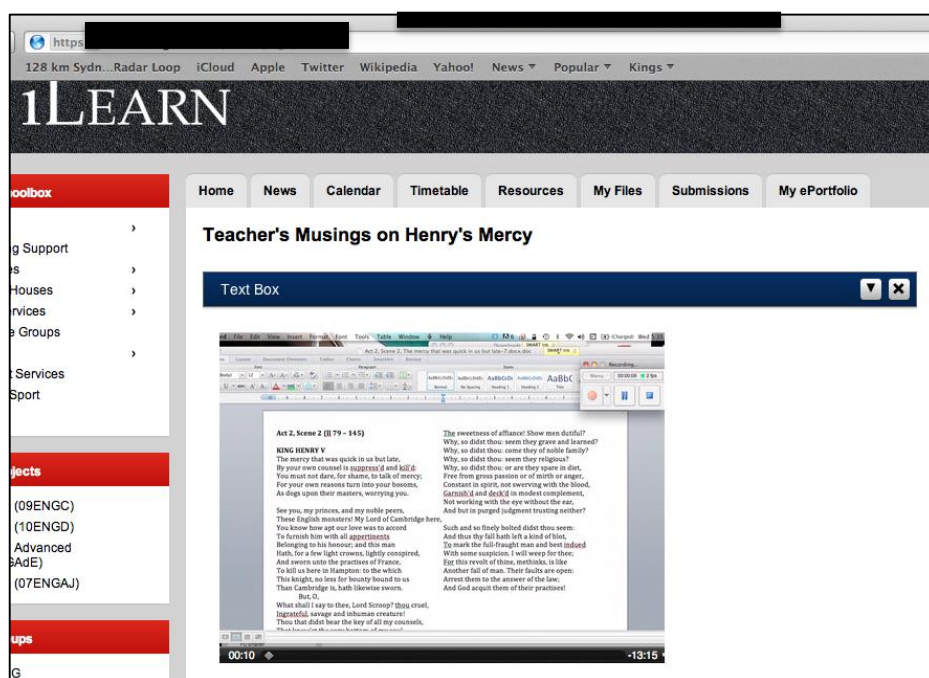
Figure 4. Photograph of iLearn subpage. This screenshot is an example of a film recording of teacher's informal lecture. The film recording captured the teacher's voice and laptop screen as they discussed elements of different speeches relevant to the conceptual study.

Conscious that such fundamental freedom offered to students to govern their own learning and thus their own use of time in class may have been confronting and overwhelming for students, I decided to ask each learner to select a visual cue that would indicate the phase they were at within their *inquiry process.* This served to focus the student on the task at hand whilst simultaneously illuminating to their peers what they were working on should they desire to work collaboratively. This method encouraged students to plan, monitor and regulate their thinking processes whilst developing new knowledge. The students become aware of the processes for inquiry, that is, the processes for learning. Students were asked to wear different coloured hats in the classroom to indicate their activity or purpose for the day (see Figure 5 & Appendix G). Students often changed the coloured hat during the lesson as they moved to a different phase of inquiry. The processes of inquiry included:

Researching - those digging through information wore a green hat.

Questioning - those who were perplexed or realizing questions wore a red hat.

Reflecting - those who were digesting information wore a blue hat.

Analysis - those who were deconstructing and exploring a concept more deeply wore a gold hat.

Ilumination, composing, creating - those who were building their solution or findings wore a silver hat.
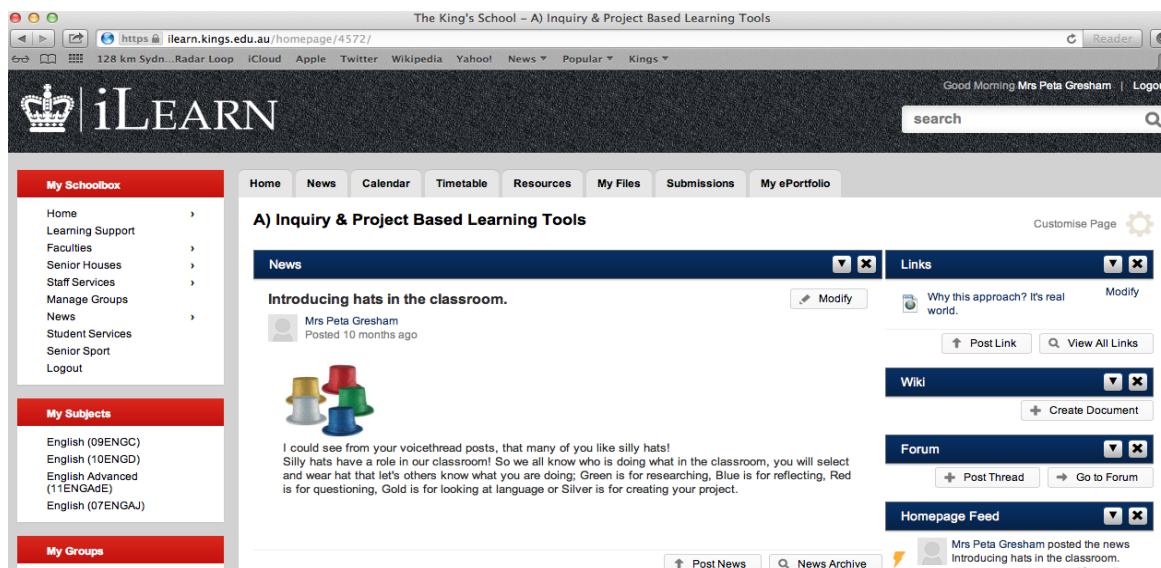
Figure 5. Photograph of iLearn subpage. This screenshot directs students to the five different processes of inquiry. Students were directed to select a colour hat to wear during lessons indicating their purpose at any moment.

As stated, the hats indicated what the students were doing but also served as a tool for students to know whom else may be working on a similar area in the room. The five processes of inquiry are not rigid, were revisited and occurred simultaneously. For instance, as students analysed they may also have reflected. As students reflected they may also have asked questions.

Behind the class site page committed to inquiry-based and project-based tools, students had a range of resources to support them in each role of researcher, questioner, reflector, analyst or illuminator, including a series of worksheets to move them to deeper thinking (see Figure 6 and Appendix L). Figure 4. Screenshot of an example film recording of teacher's informal lecture.
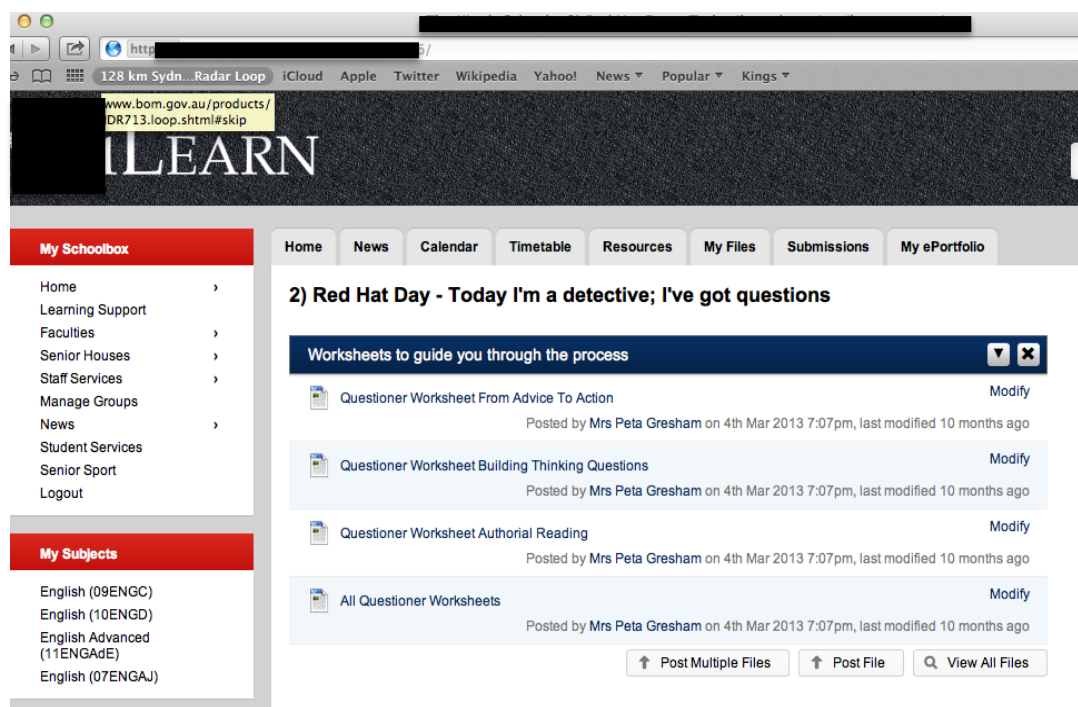
Figure 6. Photograph of iLearn subpage. This screenshot illustrates supportive worksheets. Students could select to use one or more the worksheets attached to support their inquiry.

Ultimately, the flipping of Preliminary HSC Course Content onto a collaborative digital platform enabled the teacher to use scheduled class time to mentor students as they adopted self-directed learning *strategies* as well as nurture their development of critical and creative thinking processes in problem-solving and constructing their knowledge.

4.8. Data Collection

Nine weeks of qualitative data collection commenced with convergent interviewing and guided questioning to gain insight into the participants' perspectives of how they best learn and how different methods of assessment affected their learning. Multiple forms of qualitative data were collected to answer the research questions. These included:

Data collected from two surveys: completed by all participants, and two interviews: voluntarily attended, sought information about the impact and effect of inquiry-based projects for the purpose of assessment in English. These two surveys (see Appendix F) and two informal and unstructured interviews (see Appendix G) were scheduled for preliminary data prior to commencing the inquiry-based unit of work, mid-course study, that is, five weeks into the study, and in the aftermath of the unit of work, the post inquiry reflections (see Appendix H).

An online blog and forums and wikis were established whereby students were able to share their ideas about the course content, their inquiry processes and the development of their project. Blogs, forums and wikis (see Appendix I) emerged as students looked for spaces to collaborate. There were less than five occasions whereby the teacher directed an online conversation.

Student work samples (see Appendix J) gave insight into the development of student understanding of course content. There were 17 participants in this study and, inline with the action research methodology, samples of work was collected daily for data analysis. The nature of the inquiry based approach to teaching and learning, and the freedom offered to students in designing a solution to the set question, meant samples of work could not be systematic or pre-determined. Samples of emailed word documents, screenshots of online discussions, photographs of student printing, mapping or sketching of ideas on paper, and drafts of emerging projects were collected organically as they emerged.

Secondly, to collect qualitative data on how this study affected the dynamics of the classroom and its impact on individual learning, as well as the changing role of the teacher, classroom activities were:

Recorded on film (see Appendix K) in which 18 lessons in total were recorded amounting to 15 hours of video data, and

Observed by five educators from outside the English faculty and two from different educational institutions, who offered printed notes for feedback

A reflective journal was kept by the teacher throughout the duration of the study. Entries commenced one week prior to the inquiry-based approach to teaching and learning began in the classroom and concluded one week after the study closed. In all, there were 12 journal entries offering reflections and projections of the teacher-researcher.

The filming of lessons occurred as resources were available. For instance, school cameras and observing colleagues recorded a lesson twice a week throughout the 9-week study. The particular lessons recorded each week were randomly selected, as colleagues and the camera were made available. The spread of lessons recorded represented the range of activities and participants' behaviours throughout the study. Video recordings were reviewed and selectively transcribed in collaboration with professional researchers.

4.9. Data Analysis

The validity, reliability and trustworthiness of qualitative research has undergone intense scrutiny and debate (Trochim, 2006; Patton, 1999). Denzin and Lincoln (2000) identified the criteria for trustworthiness in naturalistic inquiry (qualitative research) as credibility, transferability, dependability and confirmability. Furthermore, Creswell and Miller (2000) established eight verification procedures for qualitative study, including prolonged engagement and persistent observation, triangulation, peer review or debriefing, negative case analysis, clarifying researcher bias, member checks, thick description, and external audits. Considering the above, this qualitative study was framed around a stringent regard for trustworthiness. The research, undertaken over nine weeks, included prolonged engagement and persistent observation of the classroom teacher, periodic peer review and evaluation and specific participant case analysis. In addition, regular debriefing with professional researchers sought to clarify *researcher bias* in the interpretation of data and extended the understandings of themes as they emerged.

4.9.1. Thematic Coding of the Data. Saldana (2013), with reference to qualitative data analysis, describes a code as a symbol to each individual datum in order to identify emerging patterns, themes and theories. Thus, I iteratively interpreted and coded each data source as it was collected

and transcribed (see Figure 7), understanding that the most practical way to bring order, structure and meaning to qualitative data is to colour code text as similar themes emerged. This type of interpretational analysis allowed me to organise data in an intuitive manner, adding themes as they occurred during analysis. As the main themes took shape, categories emerged that had strong affiliations with specific themes and hence, I developed subthemes. For example under the main theme *Motivation*, subthemes emerged such as *rite-of-passage*, *competitive nature*, *deadlines, novelty of project* and *collaboration*. These subthemes helped me manage the data more specifically as well as facilitate the sense-making process. See Figure 7 illustrates the process of data analysis, triangulation, thematic coding and verification process. The data was funnelled or examined according to the research questions and as themes emerged they were colour-coded. As subthemes became clear I organically made claims for member checking and verification with critical friends. These discussions concluded with agreed findings of the research.

The following labels appear in the figure:

- Data was collected from different sources
- The data was pooled
- The data was funnelled according to the research questions
- Themes emerged within the data
- Sub themes emerged from primary themes
- Claims, based on themes and sub themes were shared with participants, professional observers and research mentors for discussion and verification
- Understanding of findings clarified for the researcher

Figure 7. Process of triangulation and verification. This illustration is a visual representation of the data analysis, thematic coding, triangulation and verification process.

As Saldana (2013) notes, some themes may be refined into sub-themes as participants' processes, emotions and values become apparent and the data progresses towards 'the thematic, conceptual and theoretical' (p. 12).

4.9.2 Credibility. The disclosure of the collection of raw data and the process of rearranging into themes (see Figure 7) is central in establishing the trustworthiness of the findings. Thus, themes were introduced to the participants of the study, in the form of unstructured individual interviews and small group discussions, to discuss credibility of teacher-researcher interpretations. The responses to questions such as "Does this represent your experience?" and "Have I captured the essence of this event?" helped me to evaluate the interpretations and explanation pulled from the data. The purpose of these activities, as stated, was to share moments during my ongoing analysis as patterns emerged and to record the participants' insights to my findings. To reiterate, it was the searching for the convergence of identified themes across data sources, or the triangulation of the data, that developed the validity of findings.

Furthermore, discussions with professional researchers and impartial colleagues, who had experience with action research, supported my disciplined subjectivity and critical self-reflection as a researcher. Just as seeking feedback throughout my study had assisted in the refining of my research questions, clarification of my theoretical concepts and methodology, so too was their feedback valuable in response to my ongoing analysis. The professional researchers proved valuable external auditors.

4.9.3. Triangulation of Data. The triangulation of data included multiple methods of collection in both physical and virtual spaces; questionnaires (see Appendix G), interviews, filmed lessons (see Appendix K), samples of online discussions (see Appendix I), samples of student work (see Appendix J), professional peer observation records, and reflective journal entries. The sources of data included the recorded activities of not only the participants, but recorded classroom observations by professional teachers; some with a background in action research and others with an interest in how blended learning experiences are changing the classroom. Peer examination contributed to the credibility of emerging themes. According to Saldana (2013), researcher reflections are valuable data sources:

> Thinking critically about what you are doing and why, confronting and often challenging your own assumptions, and recognizing the extent to which your thoughts, actions and decisions shape how you research and what you see (p. 42).

Making notes or memos is an important data analysis strategy (Miles & Huberman, 1994). The note articulates the thinking of the researcher and guides the conceptualization of the research. This may also guide the answers to the research questions or offer a theory as an explanation for the answers. Regardless of outcome, memos ensure that the researcher's thinking is tracked. Throughout the study, I added analytic memos and reflections from my reflective journal to the emerging themes (see Figure 7). The analysis of visual data, including student work, was documented through textual narratives and analytic memos in the reflective journal. As the themes and sub-themes emerged from the student generated data; the surveys, interviews, filmed lessons, online discussions and samples of student work, I turned to the reflective journal, and the observation comments of professional colleagues, to seek how those reflections complimented and / or challenged the coding of boys' voices.

4.9.3. Cognitive and Constructivist Theories. Both cognitive and constructivist theories were drawn upon to confirm the emergent findings of this research. In avoiding generalised findings, I formed unique interpretations of particular events and so the external validity of findings may be limited for some of the themes that emerged. A rich description of the research methods establishes the dependability of emergent findings.

Chapter Five

Findings and Discussions

5.1. Overview

This action research explored two interrelated questions, both of which were formed by my desire to seek a more engaged way of helping my students to be successful as they begin their summative assessment for their Preliminary HSC English. The questions 'What is the changing role of the teacher as students adopt the inquiry-based process of learning?' and 'How is student motivation within a summative assessment task influenced by creating a project in a format and style of their choosing?' prompted me to consider the inquiry-based learning approach as a pedagogical structure with its attendant theoretical frames of both constructivist and cognitive theory. Within these questions, I was looking for evidence that supported a different approach to learning and teaching, placing the teacher, for example, as a mentor, or meddler, or indeed, learner. I was also investigating that, if by focussing on a more liberal approach to learning and teaching in which students really began to own their learning, devising credible self-initiated ways that helped them to understand and respond to an inquiry, would certain elements be evident that demonstrated a progressive and more egalitarian approach to summative assessment at this level of compulsory education and within a multimodal environment in which students of today find themselves immersed.

There are challenging aspects for the teacher adopting this approach to teaching, learning and assessment. Firstly, the teacher needs to construct a resource rich online platform before the unit of work commences. In hindsight, it would have been valuable to record how much time was invested in building the online learning system that would support this study. The teacher needs to format the credible and accessible digital resources in a way that fosters student collaboration. The sourcing and development of a digital platform to support student inquiry is time consuming. In absence of any data verifying these claims, the researcher can reflect that constructing the online learning platform was extremely time consuming. This study had the support of three teacher-librarians who each played a significant role in the development of the online platform. One teacher-librarian was particularly skilled in sourcing information in a range of audio, video and eBook formats for the teacher to select from. A second teacher-librarian had extensive experience using the online platform and was considered a design expert to support layout and design of iLearn. Another teacher-librarian, who had international

experiencing leading action research teams, played a role in the shaping of the online platform providing the tools for student inquiry and collaboration. Each of these colleagues was integral in the researcher adopting this approach to teaching and learning. It is important to note that blended learning platforms, once established, are available for future students. These digital systems can be edited over time to provide innovative resources as they emerge and clean spaces for collaboration. The argument here is the time invested in creating the online platform will be beneficial in the long-term.

A second obstacle for the teacher adopting this approach in the classroom is having the trust and confidence of students. There is a dramatic shift as the teacher's lesson plan is solely focused on supporting the students' needs as they arise. Teachers, who are used to planning lessons centred on course objectives, outcomes and content, must now guide and mentor students as they independently and selectively navigate these throughout the unit of work. This *letting go* demands a great deal of trust and confidence between the teacher and the students. It is difficult to pre-determine what will be required of the teacher as they respond to the needs of the learners. In any one lesson the teacher may need to play a range of roles. For instance, they may be the motivator for a learner who is weary, the provocateur for a learner who needs to probe an idea more deeply or the director for a learner who is lagging behind timelines or straying from the inquiry question. These learning situations are extremely difficult to pre-empt and it is challenging for a teacher to enter a lesson with the single plan to respond to the individual needs of the students as these emerge. Simultaneously, it is difficult for the students to enter the lesson with clear goals and remain engaged in solving the inquiry question. Trust and confidence between the teacher and students is important for this approach of teaching and learning to be successful.

A final challenge with adopting this model of teaching and learning is the approach is at odds with the style of high stakes state and national examinations. As discussed in the introduction, these time-based and paper-based examinations are rigid in structure and privileges pre-determined answers and solutions. It can be argued the nature of this approach, being collaborative, open-ended and unstructured is not the best method to prepare students to performance in national examinations such as the National Assessment Program and the Higher School Certificate.

The evidence strongly supported my original concerns in which I wanted to aid my students in becoming more engaged, motivated, creative, and self-regulatory as well as being comfortable in

sharing their ideas as they designed their own inquiry question and developed strategies by which to respond within an environment of creative liberty. Thus, there are four key findings related to:

Student motivations for learning

The relationship between the creative dispositions as enablers for the inquiry process

The elements of creativity that students experienced and developed during the inquiry process

The changing role of the teacher as project-manager, students as leaders, and teacher as learner alongside the students.

Within each finding, elements of inquiry-based learning are clearly identified as contributors to student creative liberty and confidence, the changing role of the teacher in a multimodal learning environment and deeper more independent learning experiences.

5.2. Cultivating student motivation through multiple pathways

The inquiry-based approach to learning had a significant impact on motivating and engaging the boys in the exploring course concepts and the literature set for study. This approach to teaching and learning is a particularly democratic form of teaching and learning that privileges pre-existing interests, unique perspectives, and the various strengths of students who typically may be marginalized in school (Wilhelm, 2007). The data analysis revealed that the participants were internally motivated to learn**,** and that they approached the inquiry question through the differing motivations. The flexibility of the inquiry processes enabled six key motivators to organically emerge:

Independence and self-driven nature of learning

Inquiry question, course content and concepts of exploration

Competition and desire to have a unique and original idea and insightful solution (project)

Deadlines and ability to design own timelines to meet due dates

Collaboration and freedom to work with others

Solution to the inquiry-question to be presented as a project in a format of own design

5.2.1. Independence and self-driven nature of learning. Some students were engaged by the independence, flexibility and freedom of the inquiry-based approach as demonstrated by Participant H's comment, 'I prefer the way of learning now [inquiry] as we can still rely on the teacher to help us but I can also do a lot of it myself'. Some saw the process as a rite of passage as

Participant P notes, 'When I found something by myself it felt rewarding… that I uncovered it by myself.' There were students clearly driven by the student-centric nature of inquiry-based approach to learning. Participant B reflected in an informal and unstructured interview, 'I like to be able to find my own way. This allows me to earn my own unique understanding'. These quotations are representative of the typical conversations whereby the students were able to articulate that the manner in which they were free to approach their project promoted a sense of creative liberty whilst gaining greater insight into the rewarding challenge of deeper thinking. Appendix L provides a screenshot of sample participants responses reflecting their enthusiasm for an independent and personalised approach to learning. In addition, Participant F's candid response during an informal and unstructured interview reiterates this approach is motivational, 'I really enjoyed the experience of being able to respond to the assessment task creatively, because I had the freedom to do as I want, changing it around to suit my need'. Complimenting Brown, Collins and Duguid's (1989) recommendation that teachers nurture student confidence, independence and control over their learning, many boys embraced the inquiry-based approach to learning as a personal test, whereby they had to make it work as the commitment to learning was on their terms. An observing colleague concurred that the students were independent and self-driven in the classroom, 'Came in and some boys had sparkly hats on- unsure why- but a sense of ownership and individual achievement. Boys are really interested in going deeper with the teacher 1:1. The boys were involved in different tasks.'

They would see any failure here, as still being dependent on others, and this propelled them to use the classroom and time with the teacher effectively. Some felt empowered by the personalised approach to learning. Fear often stymies motivation. Taking risks and overcoming fear of failure, for example, appeared to disappear as the participants got further involved in the formulation of their responses. Not all students were motivated by the independence as the reflective journal illustrates,

> Wow, it is Week Two and a few have already hit a wall. Participant M and Participant O seemed genuinely lost with where to start. Participant G and Participant R were quickly could see how much coursework they had to dig into and became overwhelmed at times and I could see that they felt defeated… but these latter two boys had more grit and determination to get on with it. My concern is that Participant M is using 'I don't understand' in order to avoid trying.

Filmed footage of lessons early in the study revealed that Participant Q and Participant K shared similar patterns to Participant M and Participant O in their conversations were very general about the

concepts and overlooked the set texts, often lapsing entirely from the coursework. These students were clearly not motivated by the independence, and as will be explored later, were driven by other motivations.

5.2.2. Inquiry question, course content and concepts of exploration. Motivation for these boys was strong as they developed urgency with their learning and took a greater responsibility for their progress. Data analysis suggested that many of the students were driven by the concept of the inquiry - the task itself. Having taught Shakespeare's Henry Vth for seven years prior to this research, it was energizing to see students absorbed in the play. Participant C's interim presentation kept lapsing into an analysis of the texts and his fascination with how different characters were represented as empowered and disempowered. Intriguingly, he had assumed the more traditional role of the teacher: lecturing to the class. It was encouraging to see his peers celebrate his knowledge and enthusiasm in their peer reviews (see Figure 8).

Student's Name: ▮▮▮▮
Peer reflections / comments on Presentation: *Clearly excited about the course content. Presentation was organised, Tech Savy- engaging use of Prezi. Made me laugh. Fun. Great. Clearly enjoying yourself during presentation. Confident. Refreshing to see student so happy and enjoying the coursework. You were clearly engrossed in what was being said. Right balance of maturity with infectious enthusiasm. Slideshow demonstrated clear grasp of central concerns of the novels- specific to empowerment and disempowerment. Commentary on the women in the plays, the children in the plays very interesting. An honest and open presentation. Casual in style, a natural teacher.*
'Kevin knows his stuff". 'You kept everyone intrigued'. 'You helped me choose a speech'.

Figure 8. Photograph of collated peer reflections and comments. The formative assessment of Participant C's preliminary presentation reflects student admiration for a students engagement in the course content.

During an informal and unstructured interview, some students reflected on the significance of Participant C's contribution to their own learning. Participant P commented that 'When we did those smaller presentations, I choose [*sic*] one of my speeches from [Participant C's] presentation - from what he said about it'. It was also wonderful to watch them problem-solving the inquiry question as a consequence of their own motivation for the open-ended approach to the task. Participant C reflected that he was hooked by 'how much I wanted to know' and Participant P agreed 'You actually get into the topic, as there are no limitations to what you can do. Can become like a competition with mates to have the most unique idea'. Their reflections are inline with Curwood, Magnifico and Lammers (2013) acknowledgement of improved student motivation with the sharing of knew knowledge with authentic audiences. The students, independently and collaboratively, unearthed the characterisations, the

themes and the assumptions embedded in the literature to support the task and as Participant B put it, 'I misinterpreted the depth of both texts'. Furthermore, the personalised approach enabled students to choose their own directions; a strong motivator for these year 11 students reflected in Participant Q's response on a survey, 'What I'm finding rewarding about the project is the freedom and having to start the project early means you can really expand on your ideas'. As identified in *Motivation and Self-Regulated Learning: Theory, Research and Applications* (Shunk & Zimmerman, 2007), when an environment supports self-regulated learning, student motivation is enhanced.

An observing colleague noted how inquiry-based approaches to teaching nurtures motivation for investigating course concepts, 'Your (teacher) questioning facilitates more in-depth answers/ questions from the students. This process (inquiry) also seems to increase the amount of support that the students give each other thus making them more comfortable to explore and voice ideas/ interpretations.' Motivation, says McDevitt and Ormrod (2006), energizes and directs learning and if intrinsic, that is, inherent in say the task being performed, inevitably the learner will use more effective learning strategies and achieve at higher levels as shared by Participant B agreed and observed that when he was, 'uncovering new things by yourself. It just felt rewarding,' and Participant N agreed 'as soon as I found that technique on stage direction. I thought that was pretty cool. That I had found it out. I was pretty happy'. Both these students were achievers and given the opportunity to be more self-directed in their quest, allowed them to be more inquisitive, engaged, independent, and clearly proud of their ability to problem-solve.

5.2.3. Competition and desire to have a unique and original idea and insightful solution (project). As indicated in Reichert and Hawley's (2010) global study *Reaching Boys, Teaching Boys: Strategies that Work and Why*, if boys are given opportunities to learn through healthy competition, they will. In this research study, there were those students who were overtly competitive in nature and the inquiry-based approach to learning gave them an opportunity to test themselves against their peers. Mid-way through the study, the students were asked to give a short presentation reflecting on the inquiry process. The reflective journal illustrates a sense of supportive competition between the participants.

The peer review of presentations is what excited me the most- blew me away. They nailed

each other- in terms of being so incredibly insightful about what their strengths and

shortcomings are- with their inquiry and the way they address an audience. My collation of students feedback left me very little to offer for further contributions. It was an important event - to have the students present a mini presentation reflecting on what they have learned and where they are headed- four weeks before the presentation as it did a few things:

Gave the whole class different ideas / awareness of the different approaches to the inquiry

Made each student reflect on their own learning, own progress, own project with 'time to spare'

Gave each student an opportunity to offer assistance, feedback to others in the class.

Gave a 'whole class together' again feel to a lesson- rather than fragmented smaller groups or independent work

Sparked a little competitive energy in the room- that seemed to electrify the classroom.

Certainly the students found each other as sources of inspiration and if competition fostered their creativity then Participant Q's reflections in an unstructured and informal interview resonates, 'I jumped at the chance of creating my own project. I looked around the room… such as iweb, Prezi and I decided on an interview saved on podcasts because it best suited me.' Whilst the students collaborated and were inspired by each other, they also strove to have independence and uniqueness in unearthing solutions to the inquiry. Participant F saw the inquiry-based approach to learning as an opportunity to 'be original, and try and do something that has not been thought of, or is not commonly done' he explained that it gave his classmates an occasion to 'add our own unique twist to it (the inquiry), so that it (the project) makes everyone's work stand out from each other'. Both students' reflections reiterate Macedo's (2000) appeal for a democratic education, whereby; students are motivated not by the reward in producing an expected solution, but the praise and admiration in being individually creative.

5.2.4. Deadlines and ability to design own timelines to meet due dates. Almost all approaches to teaching and learning tasks have deadlines and certainly the summative assessment on which the inquiry was based did. Whilst aware that a deadline was imminent, it was important not to be the constant reminder thereby possibly stopping the intuitive and creative verve so many of the participants experienced. An online timer was constructed on the students' iLearn entry page serving as a reminder of the time and to allow the students to take charge of their progress. For many of the

participants this was a strong visible aid that did not intrude on their processes. Participant A suggested that one of the best features of the online learning space was 'The countdown to remind you how much time is left.' Having noted that, there were participants who preferred some gentle guidance by myself as observed by Participant R who suggested that, 'it was good how you kept asking us where we were up to… Cause when there was three weeks left I realised how much I had to do and if you didn't do that… I wouldn't have finished'. Both reflections reflect of Etmer and Newby (2013b) cognitive approach in asserting the role of the teacher is to nurture students as they develop learning strategies, including time-management, to construct new knowledge.

5.2.5 Collaboration and freedom to work with others. Inquiry-based learning allowed the participants to collaborate and to re-visit their own processes making adjustments to their projects after discussions with peers. The classroom became a loud environment with a great deal of movement as students elected to work together (see Appendix K). A teacher-librarian interested in this research observed that

> Students work both independently or collaboratively without the need for the teacher to force this idea. The hats reinforce to the students what stage they are up to. It gives the students the opportunity to collaborate and discuss ideas together. Learning happens in a multitude of formats chosen by the student.

Certainly, there were students who were driven by the freedom to collaborate with their peers in the classroom to problem-solve and work through concepts. Participant L reflected that he' learnt a lot more from my mates as well and got many different insights from the normal teaching methods.' Treadwell (2008) recommends inquiry is most effective when undertaken collaboratively and some students noted that their best learning experiences were the result of working together. Student A reflected in an interview that he 'learnt that I am not very good at self-motivating and rely quite heavily on the input of others to get me started and guide me along the right path'. Says Participant R, 'It was quite interesting to see what everyone else believed about the empowerment and disempowerment compared to how I felt'. Rather than keeping his opinion to himself, he entered the online forum and engaged fully in the rich discussions and debates about both Shakespeare's language and the concepts of the inquiry. Individuality flourished, as did creativity and deep collaboration. Participant A also commented that he had 'enjoyed learning other people's perspectives and how they'd viewed

stuff'. The inquiry-based approach to learning offered students time and space to collaborate and this clearly improved their motivation and engagement with the course content.

5.2.6. Solution to the inquiry-question to be presented in a format of own design. In inquiry-based learning, students are free to construct their knowledge in whatever way they felt would firstly, respond to the inquiry and secondly, in whatever sequence worked best for them. Some students were driven by the novelty of designing the product in the first instance to showcase their knowledge. The students who had limited self-discipline to begin research as a first step, and reflect upon the supporting literature resources, seemed to be more stimulated by the end product - how it would look and feel. Participant G remarked in an informal and unstructured interview that 'using different technology when I was analysing text… was kinda [*sic*] fun, it's new, it's fresh'. It was the illumination of understanding that motivated their research. Participant G' 'I was allowed to use different technology to create one masterpiece'. His enthusiasm reflects Gannon (2011) claim that young writers use digital tools as both tools and assets in composing new texts. Participant M agreed,

> The best part of the inquiry is being able to choose how you want to present. It's pretty rewarding as you get some ideas going and you're not stuck to one thing that everyone has to do. You can pick the one that you feel is the best.

Once he had visualised and designed how he would present his perception of the inquiry, he worked backward to construct his knowledge and finalise his project. Swan, Pead, Doorman and Mooldijk (2013) would agree with Participant G as he had choice in how to proceed and asked his own questions within the inquiry process. As well, Helm and Katz (2001) support the notion of students having choice in how they go about solving a problem and agree that with inquiry-based learning, students' can work at their own pace and that learning experiences are determined by the project progression, learner's interest and resources available. Although the freedom to choose how to construct and showcase their knowledge and understanding was challenging for the students, they felt pride in their own work as illustrated by Participant A's comment after creating his project, 'A bit daunting but also refreshing and different' and Participant M's honest observation, 'Creating your own project is more interesting, but a lot more difficult'. Participant C shared these sentiments and reflected 'It's interesting that you never know how long the project is going to take until you start doing it'.

Students learned how to use different tools to engage in the inquiry and adapted to changing classroom dynamics. Participant F noted

> I learnt that the traditional way of class isn't the only way to learn things, as during this project I still learnt a lot, if not more. I also learnt that we can use technology to help us express our thoughts, as seen with several students project, who did things like websites, iMovie and virtual books on iPads.

Students had an appreciation that multimodal compositions enabled a democratic approach for students to express their understanding of course content and problem solve a solution to an inquiry question. Students learned that inquiry-based projects foster Dweck's (2006) *growth mindset*; whereby, their ideas evolve. Participant Q 'From this experience I learnt it is very beneficial to have a long time completing a task since your ideas can grow'. Students had encountered notion of learning and knowledge construction is an ongoing process and developed confidence, that over time, their abilities, skills and understanding of course content, would evolve. Through inquiry-based approaches to learning, Participant Q illustrates a relaxed confidence in the awareness that genuine and deep-learning experience takes time.

In summary, the different motivations driving students through their inquiry sparked different perspectives, novel ideas and established a dynamic energy. Because the teacher was not leading the analysis of the literature, rather only supporting students as they discovered their own directions, they were unearthing creative responses to their inquiry and became comfortable and confident in expressing support for each other. Jensen (1995) noted that, 'If the learner is doing the task to get the reward, it will be understood, on some level, that the task is inherently undesirable. Forget the use of rewards…Make school meaningful, relevant, and fun.' (p. 242). As different motivations were ignited within students, a stimulating and dynamic energy developed in the classroom that fostered an electric learning environment. The inquiry-based approach to teaching and learning and the freedom to be creative in designing a solution in a project of their own choosing were key in motivating the boys' investigation and analysis of literature and the concepts set for study. In the traditional approach to summative assessment, students normally wrote an essay to explain their perception of the question asked. Through the inquiry-based learning approach, I was amazed by the many ways in which the participants responded and the maintained enthusiasm throughout the task.

5.3. Relationship between creative dispositions as enablers for inquiry.

Critical and creative thinking is identified as one of the seven general capabilities to assist students to live and work successfully in the 21st century (Board of Studies, Teaching and Educational Standards NSW, 2012). Indeed within the secondary English classroom, creativity is integral to the inquiry process (Longo, 2010). The findings of this research uncovered a symbiotic relationship between the processes of inquiry and the creative dispositions, those characteristics supporting creative thinking. The creative liberty offered to students activated the creative dispositions and engaged the students with inquiry. Inquiry-based learning cultivates the creative capacity of students. These five creative dispositions identified by the OECD include; *disciplined, imaginative, inquisitive, persistent* and *collaborative* (Lucas, Claxton and Spencer, 2013). They argue these are the characteristics of the creative mind. The findings of this research suggest that being creative is an inherent part of the inquiry process. It became clear that the participants in this research had different favoured dispositions: some were more naturally collaborative, as discussed in Part 1 of the findings, while others were more inquisitive in the concepts set for inquiry. It was the stronger or more prevailing creative disposition that engaged the students with their inquiry and in turn propelled the development of creative thinking skills. Unless specified, the quotations in this section are transcripts from informal and unstructured interviews.

For instance, Participant C was *inquisitive* with his study, (see Appendix E) and he reflected how his inquiry was driven by 'how much I wanted to know'. Participant F prefers *collaboration*, (Appendix E) and suggested that learning 'independently can sometimes be a bit hard, but on a class level can be too big. Small groups allow the discussion of ideas'. Interestingly, it was the more predominant or favoured creative dispositions of the student that served as the way into the processes of inquiry. Swan, Pead, Doorman and Mooldijk (2013) argue that the five processes of inquiry include; researching, questioning, reflecting, analysing and illuminating understanding through composing. This research found that it was the stronger or favoured creative disposition of the learner that motivated them into the inquiry. It was the *inquisitive* nature of Participant C (see Appendix E) that activated his researching. In contrast it was the *collaborative* disposition of Participant F (see Appendix E) that motivated his questioning.

In addition, the self-regulatory nature of inquiry-based approaches to learning enables the creative dispositions to organically emerge. In this study I observed how, through the processes of

inquiry, the emergence of one creative disposition fostered a simultaneous development of the other four core dispositions of the creative mind. For example, Participant C who is *inquisitive* in nature (see Appendix E) was curious about course content and course concepts. He preferred to work independently and grappled with disciplining his focus to problem-solve, reflecting 'it's also really hard to get use to that freedom… it is hard to pick a direction to take'. However, through engaging in inquiry-based learning, Participant C developed *discipline* as his *inquisitive* nature drove his desire to create a solution. He commented that he learned 'Being creative allows me to restrict myself in ways that I choose'. Through inquiry-based learning, Participant C developed the *discipline* to curb his curious nature in order to effectively and efficiently problem-solve.

Participant F who is c*ollaborative* in nature (see Appendix E) reflected in his use of the plural 'we' and 'us' as he identifies learning as a collective experience; 'I learnt that we can use technology to help us express our thoughts, as seen with several students project, who did things like websites, imovie and virtual books on ipad'. Participant F is a social student (see Appendix E) who was aware of other students' progress with their projects. He was challenged by the *discipline* required for solitary research commenting that, 'at some stages, it was difficult getting myself to push through with it and getting motivated to work on it'. Participant F was engaged by the *collaborative* experience and developed the *persistence* and *discipline* through the inquiry-based approach to learning. He reflected that 'after getting started on it, and thinking out how I am going to set it out and what I was going to write about, it became much easier to work on it.' In fact, Participant F came to value the independent experience of being *inquisitive* and *imaginative* as he constructed his own project or solution to the inquiry question, 'When we are continuing on with our own project, we can tell the teacher the points we find interesting, and if the teacher believes it to be debatable, the teacher can present it to the whole class to gather various ideas and opinions on it'. Clearly Participant F, still valuing the *collaborative* experience, through the processes of inquiry, had developed the other four core dispositions of the creative mind. Participant F concluded that 'although coming up with the idea in the beginning took a while, I think it really paid off because I could express (the solution) in my own unique way'. Whilst collaboration served to motivate Participant F's inquiry, once engaged he developed other dispositions of the creative mind. Permitting students to construct a solution in a project of their own choosing enabled students to naturally engage their predominant creative disposition to fulfill the process of inquiry.

In summary, Longo (2010) argued that within the secondary English classroom, creativity is integral to the inquiry process. This study suggests an interdependent relationship between being creative and the processes of inquiry. It is the student's favoured creative disposition that engaged them in inquiry. When one creative disposition is ignited within a student, a growth in all five is naturally fostered through the inquiry–based approach to learning. The nature of inquiry and the processes for creativity are personal and teachers who design tasks offering creative liberty nurture deep-learning experiences for their students. The creative dispositions have a symbiotic relationship with those processes required for inquiry.

5.4. The relationship between inquiry-based learning and developing the processes of creativity.

The results of this study indicate the processes of inquiry; researching, questioning, reflecting, analysing and composing, develop those processes of creativity. Students who are given the opportunity to be self-regulating and who are empowered with illuminating a solution to an inquiry question in a format and style of their own choosing are engaged in critical and creative thinking. In other words, an inquiry-based approach to teaching and learning motivates the development of the creative capacity of students. Gresham (2014) identified seven processes of creativity as; to grapple, wrestle and develop grit, to collaborate, cooperate and play, to be absorbed, immersed and experience a sense of flow, to re-create, re-invent and re-envision, to escape and experience the unreal, to have elevated capacities for expression, to have confidence, feel pride and fulfilment.

It was very clear the students grappled with one or more of the five processes of inquiry. Unless specified, the quotations in this section are transcripts from informal and unstructured interviews. Students developed grit for learning as they wrestled with unique problems and challenges. Participant H was confronted by freedom of personalised learning experiences through inquiry-based learning. 'The challenge is plunging into the unknown as I have never done anything like that before.' Participant K agreed that there is an element of apprehension with inquiry-based approaches and having creative freedom. Participant H and remarked 'What I thought about the inquiry process… the whole idea was quite scary - to do my own thing.' This uncertainty is in line with Lehrer (2012) who identifies an element of fear in the creative experience. Indeed at the outset three quarters of the

participants wanted the teacher to resume the role of directing their ideas and determining their schedule. Participant B remarked, 'What has been challenging for me was when I started I had no clue where to go. It's hard to get a grip and start. But when you start you get the guts of it and it's a lot easier and you get direction and purpose on where to go'. The students' reflections of tackling the challenges of inquiry is inline with Greenfield's (2004) prediction that the classroom would move beyond being teacher centric and evolve as a place of dynamic student driven activity. The self-directed and self-regulatory nature of inquiry-based approaches to learning permitted students to take risks, overcome challenges as they wrestled with researching, questioning, reflecting, analysing and composing. Participant N confidently reflected 'I find I can always step out of my comfort zone when I express myself creatively'. There was a self-realisation and developing maturity in confronting intellectual challenges and understanding their own processes for learning. Perhaps Participant H's anecdotal reflection captures how inquiry-based approaches to learning develop a student's grit and confidence to re-create and re-envision,

> 'In the initial stages of the project I was very sceptical about what it would involve. I honestly never saw myself at the stage I am now. And I was very anxious about the weeks ahead. I based my timeline on what I thought I could achieve in the period of time given and looking back now I see my project is very different to what I thought it would originally turn out to be. I'd planned to complete a movie exactly one week before the presentation date. This did not happen. (On falling behind) I was really left unable to write an entire script and create a whole movie within a period of just five weeks. I therefore decided replaced the original idea with an interview. I could simply change my voice to fit in with the characters and didn't have to worry about the hassle of filming equipment.'

Indeed the students developed pride as they progressed with the inquiry and met deadlines. They realised that the enjoyment of learning comes at a price and they were determined to *pay it*. Participant P acknowledged that creating his project 'It was enjoyable, but required a lot of effort'. The effort Participant P experienced includes both intensity of concentration as well as lengthy periods of time. Csikszentmihalyi (1990) suggests there is a kind of harmony when in deep conscious concentration and the experience can give the feeling of suspending time. The students experienced immersion as they progressed through different stages of inquiry. Students found the inquiry process gave them space for deep thinking. Participant E seemingly paraphrased Csikszentmihalyi when he

reflected 'It was free flowing, without structure, allowing for creativity. The lack of a (teacher-set) goal gave birth to new ideas otherwise blocked off.' In the final weeks before their projects were due, students worked increasingly in isolation as they became immersed in their own creations. Participant Q reflected a similar experience a type of flow, 'Ideas spewed forth as I attempted to construct them in a logical manner.' Participant Q agreed he felt an immersive experience and added 'you are able to access deeper images'. Through the creative flow experience he felt a deeper connection to ideas. Participant L agreed before furthering the discussion in suggesting the process of inquiry was more gratifying too 'because I was connected to my work I enjoyed it more'. Students were engaged with their learning and were yearning for time to pursue their ideas further. Participant A confirmed that 'I found that coming to English was more enjoyable- to do the work. Sometimes in English you sit there and you do the work because that is what everyone else is doing… But (with inquiry-based approach) you'd start the work and you would want to continue on and do a bit more after the bell (end of class).' His assertions are in line with Prensky (2001) who suggests the modern student prefers to learn doing and is more likely to connect with own social networks than engage with the more traditional teacher centric lessons.

The students learned that cooperating with each other was not only fun, but also proved to be effective and an efficient way of progressing with the inquiry. Boys were able to articulate their understanding of the power of collaboration, Participant J 'Small groups is best as you are able to hear other people's opinions whilst still voicing your own'. Students worked collaboratively, in the deep sense of the concept, and were prepared to acknowledge colleagues ideas. Students extended the collective learning experience beyond the classroom through the iLearn page. Students reflected upon the online learning spaces and found the most useful features were those spaces that enabled collaboration. Students found each other a source of inspiration in broadening and deepening their understanding of the concepts studied. This is in line with Brown, Collins and Duguid (1989) who advocate that teachers nurture student collaboration as they grow in confidence and independence with self-directed learning. Participant J reflected that 'not only does inquiry allow freedom with the format but many classmates have different perspectives and insights into the inquiry.' Students turned to each other for support and affirmation with their progress as well as sourcing fresh ideas.

A colleague, from a different teaching discipline observing how the inquiry-based approach to teaching and learning was unfolding in the English classroom, informally questioned and recorded the

responses of students. In particular he was interested in how the school's online learning platform was facilitating their inquiry. The teacher asked 'What is the most useful feature of the class ilearn page?' More than one third of the class indicated the most useful tools of ilearn were the collaborative features. Both Participant J and Participant B were explicit in suggesting, 'The Forums' were most useful. These *forums* provided a space for students to pose questions or make statements for others to comment upon. These student's voices affirmed Curwood, Magnifico and Lammers' (2013) findings that students use online interactions to share work for the purpose of collaboration and critique. Participant Q, Participant K and Participant A were more inclusive about the collaborative spaces of iLearn and indicated that the blogs, wiki's and forums were useful in accessing 'the discussions', 'being able to read peer's work', and 'develop a different perspective to things'. It was because the students surprised the observing teacher with the engaging power of the iLearn page that led to further questioning; 'How often do you read classmates responses or questions on the iLearn page?' The students' enthusiasm for the online collaborative spaces was profound. Participant C asserted that 'I read them as often as I can find them, since I would like to receive information from other people, creating more ideas.' Participant B concurred that he read other students comments 'Every time I go on, to see a new perspective I may not have gained.' Participant L was in agreement and reflected that 'I read them sometimes when I have free time to comment and help others and it sometimes helps my understanding of texts as well.' Students considered these spaces as opportunities to learn from and support each other through the process of inquiry. Participant A reflected that he read these collaborative spaces 'Quite often, to see if they will help me with what I am up to' and Participant H suggested 'I like to comment on them.' This later comment reflects that a student often seizes the opportunity to become a mentor for learning as suggested by Solomon (2000). The blended learning approach to the inquiry fostered constructive learning relationships between the students.

Students were exceedingly proud of their sense of achievement in having solved the inquiry question and presented their knowledge and understanding with creative liberty. Gresham (2014) notes that fostering creativity in classroom tasks bolsters a student's confidence and pride. Participant N reflected on the processes of being creative 'It feels that you can express your ideas and be proud of it when other students look at your achievement. Good ideas shine through creativity in a way they do not to the same extent in essays'. The students found the classroom experience and coursework produced to be more engaging and satisfying. The students developed a *growth mindset* (Dweck,

2006), whereby through the inquiry process and creative experience, they unearthed their potential to problem solve. Participant C added, 'It's kinda satisfying knowing that the project is a result of the fruits of your own labour.' The students were proud of their sense of independence. Participant M noted that 'When you have finished the project it's pretty cool. You look at all the work you have done and you think- I've done that by myself.' Etmer and Newby (2013a) note the importance of having *real world* contexts to motivate students and the inquiry-based approach; researching, reflecting, questioning, analysing and composing, presented the journey of authentic problem-solving. Participant P 'A good thing is being able to make it more interesting, it's just more interesting really.' The students exceeded merely completing the task set for assessment and discovered that their learning was stimulating and their writing was noteworthy too.

In summary, the inquiry-based approach to learning nurtured the students in developing skills in researching, questioning, reflecting and analysing before creating a solution. At different times, and throughout the process of inquiry, students were challenged to be disciplined, persistent, imaginative, inquisitive and collaborative in order to problem-solve. Inquiry-based approaches to teaching and learning develop the creative capacity of students.

5.5. The changing role of the teacher as project-manager, students as leaders, and teacher as learner alongside the students

The findings of this research suggest there is a dramatic shift in the role of the teacher. McWilliams (2009) suggestion that the modern teacher becomes a *mentor, guide* and *meddler* is actualised within an inquiry-based approach to teaching and learning. Unless specified, the quotations in this section are transcripts from informal and unstructured interviews.

Initially, students were confronted by having to write their own timelines and schedules, consequently a great deal of class time was spent mentoring how to plan their approach to the inquiry question. Participant C found the classroom experience dramatically changed for him 'It's sort of like freedom. But it's also really hard to get use to that freedom'. I noted how my role as an English teacher had moved from delivering the course content to focusing on assisting students with their planning, researching, and reviewing their progress as they problem solved. As students became more familiar with the personalised approach to learning the coursework they were able be efficient with their efforts. Participant L commented that 'Usually you teach us a lot of things of what we need to

know- but we need to learn only half of them because the other half of the time you are just stating the obvious and that gets boring. So when we just do our own work and we can just ask you individual questions when we need it'. The densely packed curriculum and volume of coursework was made more manageable with an inquiry-based approach to learning. The inquiry-based approach to learning enabled me to support students' as they became independent learners; as noted by Student B, 'I learnt that when given the opportunity to work at my own pace, while not having to wait for the class, I have a lot more work done and extra time as well'. The findings of this research support Prensky (2001) claims that having students engaged in different activities enables the teacher to offer more personalised support. A visiting university student concurred that 'Students appear to know what is expected of them when they enter the room so are able to start work without instruction'. As they had become self-driven learners I was able to provoke students into different ways of thinking as reflected by a teacher-librarian observing a lesson, 'Peta checks out a boy and offers a different perspective- then walks away. Provoking deeper thinking.' I was able to work more closely with individual students as the course content had been flipped onto an online platform and time in class was spent working collaboratively to problem-solve. As students accessed those resources and tools that worked best for them, I was able work with students individually or in small groups.

The online learning platform was an integral element in freeing time in the classroom for the teacher to work more closely with the students. A colleague from the music faculty was curious how iLearn was working in the classroom and recorded an informal interview with a student:

Teacher: 'How has iLearn helped you with this project?'
Participant: 'I found the source material that was available on iLearn easy to access and navigate. This made the researching, reflecting and questioning component much more fluid and easy.
Participant: 'How would you go about this project without iLearn as the platform?'
Student: 'If it was not available I would probably just go to the internet and get lost'.

This student echoed the findings of Pan (2007) in that students are 'heavily influenced by the order in which the results are presented and, to a lesser extent, the actual relevance of the abstracts.' (p. 816). The structure and collaborative features of the online learning platform, designed by the classroom

teacher, was effective in tailoring relevant, credible and engaging resource material to guide student inquiry. Student responses to an online survey compliment this claim that the designing and constructing an effective online platform is important for an inquiry-based project (See appendix L).

Conversely, students discovered how much they valued the traditional role of the teacher, standing at the front and leading the class through problem solving and directing the solutions. Participant G 'One aspect that I missed, which came to a surprise, was the lectures of the teacher. I found that I got overwhelmed when trying to deconstruct the almost impossible meaning of Shakespeare's writing'. However, when asking students how often they investigated their own ideas and hunches after a teacher's presentation of ideas, they confessed it was rare. Participant M confessed that when a teacher lectures a synopsis or analysis of a text that he 'never!' looked for other ideas. Participant A support Participant M in reflecting that 'You don't get distracted by any of the other ideas because you know that's the way the teacher thinks it should be.' Participant A's cynicism reflects the concerns of Lave (1988, in Brown, Collins and Duguid, 1989, p.36) who notes students resign from having an original idea for fear of being judged to have failed learning the expected response. By standing aside from delivering the content, and instead working alongside the students as they made discoveries, different perspectives and unique ideas emerged as students built confidence with their independence in learning. Students reflected on how they felt teachers could best support their learning. Participant A found that the personalised learning experience made the teacher more approachable. 'I enjoy the classroom style where the teacher seems to be on the same level as the students and it feels okay to ask the teacher a question like you would a student/ friend sitting next to you.' Not only did the students find they had more time working 1:1 with the teacher, as when interesting and abstract ideas were raised by individual students, the teacher would, on occasions, then put it to the class which provoked engaging classroom debates. As students adopted the online learning spaces outside of school, they coveted time in class to explore those questions or challenges that were too difficult to post online. Participant J suggested that in class the 'Teacher should spend time answering any questions that can't be asked over iLearn or email. The teacher's role should be encourager and helper.' The students often worked on their own inquiry and projects whilst simultaneously listening to threads of conversations around the room. Participant M 'Students should have a project based assignment so that when the teacher is speaking, the student can either

tune in if they believe it is relevant to their project or just continue to work on their project whilst the teacher talks to the rest of the class'. The lessons were rapidly becoming a centre for deep thinking.

Increasingly there were moments in the classroom where I was not being questioned nor requested for support as students were independently selecting the tools that worked best for their inquiry. Progressively, as students became more independent with their learning, my role shifted to nurturing the student-centric classroom. In support of Brown, Collins and Duguid (1989) who stress teachers need to adopt the role of coaching students and nurturing student collaboration, my notes from the reflective journal reveal the change in classroom dynamics; 'Whilst I am leading lessons, it is my students who really drive them now'. Students were asking me fewer questions in the classroom as they increasingly turned to each other with confidence. Students were also sending me fewer emails as they selected to use online wiki's, forums and blogs to continue their inquiry beyond the classroom. This research demonstrated how, if the classroom teacher steps aside from *expert* and assumes the roles of *mentor, guide and meddler,* then individual students emerge as natural leaders of particular disciplinary fields and can offer *superior* support for the inquiry process. In particular, three different students emerged as: a leader in abstract thinking, a leader in course content and analysing language, a leader in technical support of hardware and software.

Participant K emerged as the preferred leader in abstract thinking and my role shifted to nurturing his capacity to explore and share fresh perspectives and construct new knowledge. Analysing filmed recordings of early activity in the classroom, I observed and recorded in my reflective journal that Participant K asked abstract questions and regularly offered unique responses typically sparking lively chatter. Testing my hunch that Participant K had been identified as a student who has unique perspectives, I asked him about his direction with the inquiry question. The student sitting alongside him, Participant P exclaimed 'he thinks it is all in the stage directions Miss!' Having taught this particular unit of study for seven years prior to this research, I had never contemplated nor had I come across an academic reading that considered Participant K's approach. Other students were accessing the inquiry question through characterisation, events or contextual influences; those foundations typically taught by English teachers. Yet, Participant K's notes and analysis of the two plays affirmed he was constructing an interesting and credible argument. After this incident the filmed

recordings of the classroom confirmed that students sought Participant K for his unique insights throughout the inquiry. In addition, Participant K's *peer review* worksheets, his formative assessment of other student's informal presentations, typically offered fresh supportive recommendations as indicated by his advice to Participant C; 'You are clearly excited about Shakespeare's language but you didn't clearly address the purpose of today's presentation. Make sure you are focused on the inquiry question and have a project with a clear answer by the deadline'. Participant K's formative assessments was unique as other students reviewed Participant C's interim presentation with admiration and accolades as he had assumed the role of *sage on stage* and lectured the students on his interpretation of Shakespeare's play.

My role in offering constructive criticism to students on their progress shifted to facilitating feedback. The peer review comments of the interim student presentations proved rewarding and insightful. My collation of the extensive student feedback left me very little to offer in terms of meaningful contributions as noted by my reflective journal, (see Findings and Discussions 5.2.3) The interim presentations was an important event that gave the whole class a clear awareness of the different approaches students were taking with the inquiry and made students reflect on their own progress with a heightened sense of the deadline.

Participant C revelled in the immersive experience of analysing *Henry Vth's* speeches and would frequently linger for multiple lessons over select monologues and my role shifted to project manager. I needed to remind Participant C of the broader inquiry question as he spent too long grappling with possible interpretations of scenes and I had a genuine concern he would overlook the inquiry question and deadline to present a solution. During an informal interview he articulated his motivation into the inquiry was driven by 'how much I wanted to know'. He had a thirst for the layered meanings of the language that seemed insatiable. Film recordings of lessons demonstrated how, after formulating an opinion, he would seek other students' ideas, challenge their perspectives and delight in debate before settling on a definitive conclusion. Participant C was so passionate about the course content and concepts that he inspired others. My reflective journal commented that 'Participant C is totally immersed in this study. His interim presentation kept lapsing into an analysis of the texts- Time restriction meant that I had to cut him off- he was the teacher up front. Was so good to see and the other students celebrated his energy in their peer reviews.' Needless to say that after Participant C's performance there were students who gravitated to him for assistance with deconstructing the

language of Shakespeare. Interestingly, film recordings of lessons indicate that students sought out the support of a peer who had assumed the role of McWilliams (2009) *sage on the stage.* My role working alongside Participant C was to guide him back to the inquiry question, remind him of deadlines and encourage him in constructing a solution.

Participant O emerged as the leader in technical support and students sought his assistance with computer glitches. Participant O enjoyed assuming this role as the experience meant he was able to see others progress with the inquiry; affirming his own ideas and inspiring new ideas. Perhaps it was the reflective journal dated approximately half-way through the study that noted the shift in how displaced I began to feel as the students grew in confidence with their collaborative inquiry,

> Today I was struck by a sense of rejection before experiencing a wave of elation. Participant
> G stood patiently beside me as I supported Participant O with his inquiry. I had presumed
> Participant G was waiting for my attention, however, he corrected me, 'Oh sorry Miss, no it's
> not your help I need… but I need (Participant O), really sorry, I don't mean to be rude, but I
> don't think you can assist with the technology.' I feel like I am a part of team of learners and I
> am learning alongside my students. I feel more like a project manager than an English
> teacher.

In summary, I increasingly became *meddler in the middle* as students increasingly supported each other, and some naturally adopted the role of *guide on the side* alongside the teacher (McWilliams, 2009). The students were not necessarily seeking my support, as they felt confident their peers were able to offer superior guidance. Participant M commented that 'the inquiry for me has been a great experience. The student primarily playing the engine and driving force behind the inquiry has been very different. But a good experience.' The modern teacher is less concerned with teaching students knowing course content and focuses instead on teaching students to know how to extend themselves with their learning and construct new knowledge. As Prensky (2010) suggests the students forged young professional relationships with each other and learned how to appreciate critical feedback and value the input of their peers. Participant H concluded his final presentation with 'I would like to thank all the other students involved in helping me evolve my assignment and taking me to a

place which I never thought was achievable'. Rather than feeling obsolete in the classroom, I felt an overwhelming sense of accomplishment in having taught the students how to *fly* as independent and collaborative learners.

Chapter Six

Conclusion

The uniqueness of the research may limit the replication of the study in another setting. Providing detailed statements about the context and purpose, including about myself, as teacher-researcher: professional position, experiences and biases as well as the selection of participants, enhanced the reliability of the findings and discussions. This research makes five conclusions, which have clear implications for English education.

Firstly, today's student thrives in a personalised learning environment where they are empowered by working collaboratively with open-ended and liberated thinking. Through inquiry-based approaches to learning students develop self-confidence, independence and pride**.** Student E noted that non-personalised learning thwarts deeper learning and inquiry-based approaches foster the construction of knowledge, 'the best thing about (inquiry-based approach) is the lack of (teacher-set) structure and so that gives the freedom to do what you want, create clear goals and so that you can explore every aspect that you like.' Students were refreshed at being encouraged to think freely and enjoyed the creative processes. Participant F adds, 'Being creative with what you do… strange ideas and putting them in. It's really open and I like that.' Students felt pride in illuminating their understanding and knowledge in formats that best suited them. Participant E 'a sense of accomplishment knowing that what I create is unique- it is a good feeling that I do not feel very often during class hours to make something "new" is a unique feeling'.

Secondly, educators who adopt inquiry-based approaches in the classroom shift their focus from teaching content and instead equip students with an appreciation and understanding of how to learn. There is a transitive effect with inquiry-based approaches to learning. Skills learned and developed are applied across the curriculum; for instance, Participant G shared, "I really enjoyed the hats as it gave an understanding to which stage my colleagues were up to.' Students initially found the hats to be a novelty, however, they served as meaningful signifiers. Firstly, the hats ensured students entered the classroom with a clear sense of purpose. Secondly, the hats enabled students to see who else was working in the same phase of inquiry at any time; for the potential for collaboration. What emerged from the students wearing the different coloured hats was awareness in the steps they needed to take to learn. Two students articulated that they had 'started to think in hats' in other subject areas. These

students were identifying when they were researching (wearing the green hat), when they were reflecting (wearing the blue hat), when they had questions (wearing the red hat), when they were analysing (wearing the gold hat) and when they were constructing solutions (wearing the silver hat). Participant B commented that he had become aware he was working more effectively in other subject areas. 'I think just the method you go about things, cause [*sic*] you have learnt how to inquire and how to start from the bottom'. Similarly, Participant P added, 'At the same time as this we had a Geography project that was 3,500 words and I just found time management with that easier with that after a while from doing this. I realised I had to get going and new how to do it better- more structured.'

Thirdly, students responding to summative assessments benefit when offered creative liberty. When students are able to determine their own solutions and present skills, knowledge and understanding in the format or text type of their own choosing, there is a significant improvement in motivation, engagement, and exploration of course content.

In addition this research urges for a revision and extension of our understanding of blended learning. This research demonstrates that teachers who adopt an inquiry-based approach to teaching and learning, facilitated through an online platform, not only shift the physical space of learning, but also dramatically reworks the roles of teachers and students. There is blending of roles in the classroom as the critical and creative student, engaged in the inquiry question, can teach fresh perspectives and present new ideas to the teacher. Students, in this study, unearthed interesting, engaging and credible perspectives of the literature studied that moved the teacher's understanding of texts further. They increasingly sought each other for support as they readily identified a student's particular strengths. The teacher's role shifted to facilitate student-centred learning.

Finally, there is a liberatory effect on the teacher as the teacher forgoes the role of content expert and works alongside students as they interdependently work through course content and make discoveries about concepts to problem solve the inquiry question. This change in is liberating for both the teacher and student as individual needs of students are met organically, propelling genuinely personalised learning experiences and nurturing dynamic learning environments.

In conclusion, action research is important for the professional development of educators in understanding and appreciating how different teaching strategies impact upon the learner(s). Action research is a tool enabling teachers to test emerging theories of best practise and investigate, report and share findings across school, state, national and international audiences.

References

Aqda, M. F., Hamidi, F., & Ghorbandordinejad, F. (2011). The impact of constructivist and cognitive distance instructional design on the learner's creativity. *Procedia Computer Science* 3, 260-265.

Banaji, S., & Burn, A. (2007). Creativity through a rhetorical lens: implications for schooling, literacy and media education. *Literacy.* 41(2), 62-70.

Barak, M. (2009). Motivating self-regulated learning in technology education. *Springer Science and Business Media.* 20, 281-401.

Barak, M. (2009). Idea focusing versus idea generating: A course for teachers on inventive problem solving. *Innovations in Education and Teaching International,* 4 (in press), 381-401.

Barlow, J.P. (1996) *A Declaration of Independence of Cyberspace.* Retrieved from https://projects.eff.org/~barlow/Declaration-Final.html

Board of Studies, Teaching and Educational Standards NSW. (n.d). *Advice on assessment.* Retrieved from http://syllabus.bos.nsw.edu.au/support-materials/advice-on-assessment/

Board of Studies, Teaching and Educational Standards NSW. (2012). *Learning across the curriculum.* Retrieved from http://news.boardofstudies.nsw.edu.au/index.cfm/2012/11/12/Learning-across-the-curriculum

Board of Studies Teaching and Educational Standards NSW. (2015) *HSC Syllabuses.* Retrieved from http://www.boardofstudies.nsw.edu.au/syllabus_hsc/

Boden, M. (2001). Creativity and knowledge. In A. Craft, B. Jeffrey & M. Leibling (Eds.), *Creativity in Education* (pp. 95-102). London: Continuum.

Brown, B. (2002). Improving teaching practices through action research. Retrieved from http://scholar.lib.vt.edu/theses/available/etd-04152002-182022/unrestricted/BethBrownDissertation.pdf

Brown, J., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *American Educational Researcher.* 18(1), 32-42.

Bruner, J. (1985). Models of the learner. *Educational Researcher.* June 14, 5-8.

Buckingham, (2010). Defining digital literacy: what young people need to know about digital literacy. In Bachmair, B. (Eds.) *Media Education in the new cultural spaces: the German -speaking and British discussion* (pp. 59-81). Verlag: Springer.

Bullen, M., Morgan, T., & Qayyum, A. (2011). Digital learners in higher education: generation is not the issue. *Canadian Journal of Learning Technology*, *37*(1), 1-24. *Retrieved from file:///Users/petagresham/Downloads/550-2210-3-PB.pdf*

Campbell, A. & Groundwater-Smith (Eds). (2011). *Connecting Inquiry and Professional Learning in Education.* London: Routledge.

Chappuis, S., Stiggins, R. J., Arter, J., & Chappuis, J. (2009). *Assessment for learning: An action guide for school leaders.* Moorabbin: Hawker Brownlow.

Chen, B., Gallagher-Mackay, K. & Kidder, A. (2014). *Digital Learning in Ontario Schools: The New Normal.* Toronto, Ontario: People for Education

Claxton, G. (2002). *Building Learning Power.* London: TLO Limited Bristol.

Coffield, F., Moseley, D., Hall, E., & Ecclestone. (2004). *Learning styles and pedagogy in post-16 learning. A systematic and critical review.* Retrieved from http://sxills.nl/lerenlerennu/bronnen/Learning%20styles%20by%20Coffield%20e.a..pdf

Cole, M. (2009). Using wiki technology to support student engagement: Lessons from the trenches: *Computer & Education,* 52(1), 141-146.

Collins, M. A., & Amabile, T. M. (1999). Early views on motivation and creativity. In R.J. Sternberg (Ed.), *Handbook of creativity* (pp. 297-312). New York: Cambridge University Press

Craft, A. (2005). *Creativity in schools: Tensions and dilemmas.* London: Routledge.

Creswell, J. W. & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-131.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* New York: Harper Collins.

Cumming, J., Kimber, K., & Wyatt-Smith, C. (2012). Enacting policy, curriculum and teacher conceptualisations of multimodal literacy and English in assessment and accountability. *English In Australia.* 47(1), 3-8.

Curwood, J.S., & Gibbons, D. (2010). 'Just like I have felt': Multimodal counternarratives in youth-produced digital media. *International Journal of Learning and Media*, 1(4), 59-77.

Curwood, J., Magnifico, A., & Lammers., J. (2013). Writing in the Wild: Writers' motivation in fan-based affinity spaces. *Journal of Adolescent & Adult Literacy.* 56(8), 677-685.

Darling-Hammond, J. (1994). Reinventing our schools: A conversation with Linda Darling-Hammond. *Technos Quarterly* 3 (2). Retrieved from www.ait.net/technos/tq_03/2darling.php

Denzin, N.K. and Lincoln, Y.S. (2000). Introduction: The discipline and practice of qualitative research. In N.K. Denzin, & Y.S. Lincoln (Eds.), *Handbook of Qualitative Research*, (2nd ed.). London: Sage Publications.

Dewey, J. (1916). *Democracy and education*. Retrieved on 28th February 2013 from http://opac.library.usyd.edu.au/record=3172544

Dillenbourg, P. (1995). Distributing cognition over brains and machines, in: S.Vosniadou, E. De Corte, B. Glaser & H. Mandl (Eds), *International Perspectives on the Psychological Foundations of Technology-Based Learning Environments*. Hamburg: Springer-Verlag

B., Doecke & McClenaghan, D. (2011). Classrooms, creativity and everyday life: a continuing inquiry. In B, Doecke., & G. Parr & W. Sawyer., *Creating an Australian Curriculum for English.* (pp. 35-53) Putney: Phoenix Education Pty Ltd.

Doecke, B., Parr, G., & Sawyer, W. (Eds.). (2011). *Creating an Australian Curriculum for English*. Putney: Phoenix.

Duke, N., & Martin, N. (2011). 10 Things every literacy educator should know about research. *The Reading Teacher, 65* (1), 9-22.

Dunn, R., & Dunn, K., (2003). The Dunn and Dunn learning style model and its theoretical cornerstone. In R. Dunn and S. Griggs (Eds.) *Synthesis of the Dunn and Dunn learning styles model research: who, what, when, where and so what – the Dunn and Dunn learning styles model and its theoretical cornerstone.* (pp. 1–6). New York: St John's University, 2003.

Dweck, C. (2006). *Mindset: The New Psychology of Success.* New York: Ballentine Books.

Elliott, J. (2009). Building education theory through Action Research. In B. Somekh (Eds.) *The Sage Handbook of Educational Action Research*. (pp. 28-38). London: Sage Publications Ltd.

Ertmer, P. & Newby, T. (2013a). Behaviorism, cognitivism, constructivism: comparing critical features from an instructional design perspective. *Performance Improvement Quarterly* 26(2). 43-64.

Ertmer, P. & Newby, T. (2013b). Cognitivism, and constructivism: connecting 'yesterdays' theories to today's contexts. *Performance Improvement Quarterly* 26(2). 65-71.

Esquivel, G. B. (1995). Teacher behaviours that foster creativity. *Educational Psychology Review*, 7(2), 185-202.

Ewing, R. (2010). The Arts and Australian Education: Realising potential. *Australian Education Review*. Camberwell: Australian Council for Educational Research. Retrieved from http://www.acer.edu.au/documents/aer-58.pdf

Fehring, H., & Nyland, B. (2012). Curriculum directions in Australia: has the new focus on literacy (English) and assessment narrowed the education agenda? *Literacy Learning: the Middle Years.* 20:2, 7-16.

Ferrari, A., Cachia, R., & Punie, Y. (2009). Innovation and creativity in education and training in the EU Member States: Fostering creative learning and supporting innovative teaching. *Literature review on Innovation and Creativity in E&T in the EU Member States.* Retrieved from http://ftp.jrc.es/EURdoc/JRC52374_TN.pdf

Fielding, M. (2004). Transformative approaches to student voice: theoretical underpinnings, recalcitrant realities. *British Educational Research Journal.* 30(2), 295-311.

Finger, G., Russell, G., Jamieson-Proctor, R., & Russell, N. (2007). *Transforming learning with ICT: Making it happen.* Frenchs Forest: Pearson.

Finke, R., Ward, T., & Smith, S. (1992*). Creative cognition: Theory, research, and applications.* Cambridge, MA: MIT Press.

Friesen, N., & Feenberg, A. (2007). Ed tech in reverse: information technologies and the cognitive revolution. *Educational Philosophy and Theory.* 39(7). 720-736.

Gannon, S. (2011). Creative writing and/in/beyond The Australian Curriculum. In B. Doecke, G. Parr & W. Sayer (Eds.), *Creating an Australian Curriculum for English* (pp. 185- 200). Putney: Phoenix Education Pty Ltd.

Garcia, A.S., Morrison, K., Tsoi, A.C., & J, He, J. (2014). *Managing complex change in school: Engaging pedagogy, technology, learning and leadership.* New York: Routledge.

Greenfield, S. (2004). *Tomorrow's People; How 21st century Technology is changing the way we think and feel.* London: Penguin Books Ltd.

Gregorc, A.F. (2014). *Frequently asked questions on style* Retrieved on 10th December 2014 from http://gregorc.com/faq.html

Gresham, P. (2014). Fostering creativity through digital storytelling: 'it's a paradise inside a cage'. *mETAphor.* 1(2014), 47-55.

Groundwater-Smith, S. (2005). *Painting the educational landscape with tea,* Educational Action Research, 13:1, 329-345. Retrieved from http://www.tandfonline.com.ezproxy2.library.usyd.edu.au/doi/pdf/10.1080/09650790500200295

Groundwater-Smith, S. (2011). Concerning equity: The voice of young people. *Leading and Managing.* 17(2). 52-65.

Guey, C., Cheng, Y., & Shibata, S. (2010). A triarchal instruction model: integration of principles from behaviorism, cognitivism, and humanism. *Procedia Social and Behavioural Sciences.* 9 (2010), 105-118.

Guildford, J. P. (1967). *The measure of human intelligence.* New York: McGraw-Hill.

Hargreaves, D., (1999). The knowledge-creating school. *British Journal of Educational Studies.* 47(2), 122-144.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* London: Routledge.

Helm, J. H., & Katz, L. (2001). *Young investigators: the project approach in the early years.* Teachers College Press.

Huang, H.M., Rauch, U., & Liaw, S.S (2010). Investigating learners' attitudes toward virtual reality learning environments: Based on a constructivist approach. *Computers and Education*, 55, 1171-1182.

Jenkins, E. (1995). *Brain-based Learning and Teaching.* California: Corwin Press

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide.* New York: New York University Press.

Jensen, H., Purushotma, R., Clinton, K., Weigel, M. and Robison, A. (2009). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. White Paper. Cambridge: MIT Press Retrieved from https://mitpress.mit.edu/sites/default/files/titles/free_download/9780262513623_Confronting_the_Challenges.pdf

Jonassen, D. (1996). *Computers as mindtools for schools: Engaging critical thinking.* New Jersey: Prentice-Hall

Johnson, G. (2012). The ecology of interactive learning environments: situation traditional theory. *Interactive Learning Environments.* 22(3), 298-308.

Kozma, R.B. (1987). The implications of cognitive psychology for computer-based learning tools. *Educational Technology* 27, 20-25.

Kress, G. (2003). *Literacy in the New Media Age.* London: Routledge.

Kuhlthau, C. C., Maniotes, L. K., & Caspari, A. K. (2007). *Guided inquiry: Learning in the 21st Century.* Westport: Libraries Unlimited.

Lehrer, J. (2012). *Imagine: The science of creativity*. Melbourne: The Text Publishing Company.

Lenhart, A. Arafeh, S., Smith, A., & Macgill, A. (2008). Writing, technology, and teens. *Pew Internet and the American Life Project.* Retrieved January 15th, 2013 from www.pewinternet.org

Longo, C. (2010). Fostering creativity or teaching to the test? Implications of state testing on the delivery of science instruction. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 83(2), 54-57.

Looney, J.W. (2011). *Integrating formative and summative assessment: Progress toward a seamless system?* OECD Education Working Papers, No. 58, OECD Publishing. Retrieved from http://dx.doi.org/10.1787/5kghx3kbl734-3n

Lucas, B., Claxton, G., & Spencer, E. (2013). *Progression in student creativity in school; First steps towards new forms of formative assessments.* OECD Education Working Papers, No 86, OECD Publishing. Retrieved from http://dx.doi.org/10.1787/5k4dp59msdwk-en

Macedo, D. (2000). *Chomsky on Miseducation.* Oxford: Rowman & Littlefield Publishers Inc.

Mackey, T., & Jacobson, T. (2011). Reframing information literacy as a metaliteracy. *College & Research Libraries.* 72(1), 62-78

Magnifico, A. (2010). Writing for whom? Cognition, motivation, and a writer's audience*. Educational Psychologist*, 45(3), 167-184. Retrieved from http://www.tandfonline.com/loi/hedp20

Maisuria, A. (2005). The Turbulent Times of Creativity in the National Curriculum. Policy *Futures in Education, 3*(2*),* 141-152.

McClean, A., Rowsell, J., & Lapp, D. (2011). Tupaq, Katy Perry, and Schindler's List in the secondary English classroom: assessing English in new times. *English In Australia.* 46 (3), 9-20.

McDevitt, T. & Ormrod, J. (2006). *Child Development and Education.* Upper Saddle River, New Jersey :Prentice-Hall.　　　　　　　　　　　　　　　Retrieved　　　　　　　　　　　　　　　from http://wps.prenhall.com/chet_mcdevitt_childdevel_3/47/12218/3127960.cw/index.html

McInery, D. & McInery, V. (2002). *Educational Psychology constructing learning* (3rd ed.). Frenchs Forest: Pearson Education Australia Pty Ltd.

McNiff, J. (2002). *Action Research for Professional Development*. Retrieved from http://www.jeanmcniff.com/ar-booklet.asp.

McWilliam, E. (2009). Teaching for creativity: from sage to guide to meddler. *Asia Pacific Journal of Education,* 29(3), 281-293.

Menter, I. (2010). *Teacher; formation, training and identity. A literature Review*. Newcastle: Creativity, Culture and Education. Retrieved from http://www.creativitycultureeducation.org/teachers-formation-training-and-identity-a-literature-review

Miles, M. & Huberman, A. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). California: Sage

National Curriculum Board. (2009). Shape of The Australian Curriculum: English. Barton: Commonwealth Copyright Administration. Retrieved from http://www.acara.edu.au/verve/_resources/australian_curriculum_-_english.pdf

National Health and Medical Research Council (2014). *National Statement on Ethical Conduct in Human Research 2007*. Commonwealth of Australia, Canberra. Retrieved from https://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72_national_statement_march_2014_141126.pdf

National Research Council (2000). *How people learn: Brain, mind, experience and school.* Washington, DC: National Academy Press.

OECD (2005). *Formative assessment: Improving learning in secondary classrooms*, OECD, Paris. Retrieved from http://www.oecd.org/edu/ceri/35661078.pdf

Ohler, D. (2007). *Digital storytelling in the classroom: New media pathways to literacy, learning and creativity.* Heatheron: Hawker Brownlow Education.

Pan, B. (2007). In google we trust: users' decisions on rank, position, and relevance. *Journal of Computer-Mediated Communication*. 12, 801-823.

Papert, S. (1972). Teaching children thinking. *Innovations in Education and Training International*. 9:5, 245-255.

Patton, M. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research.* 34(5 Pt 2): 1189–1208. Retrieved from http://www.socialresearchmethods.net/kb/qualdeb.php

Pope, R. (2005). *Creativity: history, theory practice.* Oxon: Routledge

Powers, W. (2010). *Hamlet's blackBerry: A practical philosophy for building a good life in the digital age.* Carlton North: Scribe.

Prensky, M. (2001). *Digital natives, digital immigrants, Part I: A new way to look at ourselves and our kids.* Retrieved from http://www.marcprensky.com/writing

Reason, P., & Bradbury, H. (Eds.). (2001). *Handbook of action research: Participative inquiry and practice.* London: Sage Publications.

Reichert, M. & Hawley, R. (2010). *Reaching boys, teaching boys: Strategies that work and why.* Hoboken, NJ: Wiley

Robinson, K. (2009). *The element: How finding your passion changes everything.* Camberwell: Penguin.

Riding, R., & Cheema, I. (1991). Cognitive styles- an overview and integration, *Educational Psychology,* 11, 193-216

Runco, M.A (2003). Education for creative potential. *Scandinavian Journal of Educational Research,* 47(3), 317-324.

Saldana, J. (2013). *The coding manual for qualitative researchers.* London: Sage.

Schwartz, D. L., Lin, X., Brophy, S., & Bransford, J. D. (1999). Toward the development of flexibly adaptive designs. In C. M. Reigeluth (Ed.), *Instructional-design theories and models: A new paradigm of instructional theory* (Vol. II, pp. 183-213). Mahwah, NJ: Lawrence Erlbaum Associates.

Shunk, D. & Zimmerman, B. (eds). (2007). *Motivation and self-regulated learning: theory, researcch and applications.* NY: Routledge.

Sharples, M., Taylor, J., & Vavoula, G. (2005). *Towards a theory of mobile learning.* Retrieved from http://www.mlearn.org/mlearn2005/CD/papers/Sharples-%20Theory%20 of%20Mobile.pdf

Smith, S., Ward, T., Finke, R., & Ward.T. (1995). *The creative cognition approach.* Massachusetts Institute of Technology.

Solomon, D., (2000). Toward a post-modern agenda in instructional technology. *Educational Technology Research and Development.* 48(4). 5-20.

Stenhouse, L. (1983). Research as a basis for teaching. *Authority*, *Education and Emancipation*. London: Heinemann Educational.

Stringer, E. (2004). *Action research in education*. New Jersey: Pearson.

Sternberg, R.J, & Lubart, T.I. (1999). The concept of creativity: prospects and paradigms. In R. J. Sternberg, *Handbook of Creativity,* (3-15) New York: Cambridge University Press.

Swan, M., Pead, D., & Doorman, M., Mooldijk, A., (2013). Designing and using professional development resources for inquiry-based learning. *ZDM Mathematics Education.* 45. P945-957. Retrieved from http://link.springer.com.ezproxy2.library.usyd.edu.au/article/10.1007%2Fs11858-013-0520-8

Tapscott, D. (2008). *Grown up digital: How the net generation is changing your world.* New York: McGraw-Hill

Treadwell, M. (2008)*. The conceptual age and the revolution school V 2.0.* Heatherton: Hawker Brownlow.

Trochim, W. (2006). *The qualitative debate*. Retrieved from http://www.socialresearchmethods.net/kb/qualdeb.php

Visser, K. (2007). Action research. In S. Lipu, K. Williamson & A. Lloyd (Eds.), *Exploring methods in information literacy research* (pp. 111-132). Wagga Wagga: Centre for Information Studies.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes* (ed. by M. Cole, V. John-Steiner, S. Scribner & E. Souberman). Cambridge: Harvard University Press.

Walsh, M. (2010). Multimodal literacy: What does it mean for classroom practice? *Australian Journal of Language and Literacy*. 33(3). 211-239.

Wallowitz, F. (2004). *Text-based inquiry and teacher expectations: A case study*. Published doctoral dissertation, University of Virginia.

Waters-Adams, S. (2006). *Action research in Education.* Retrieved from http://www.faeexmdev.plymouth.ac.uk/resined/actionresearch/arhome.htm

Wiles, R., Crow, G., Heath, S., & Charles, V. (2008). The Management of Confidentiality and Anonymity in Social Research. *International Journal of Social Research Methodology*. 11(5). 417-428.

Wilhelm, J. (2007). *Engaging readers and writers with inquiry.* New York: Scholastic.

Wyn, J. (2009). Touching the future: building skills for life and work. *Australian Education Review,* No. 55, Melbourne: Australian Council for Educational Research Press. Retreived from http://research.acer.edu.au/cgi/viewcontent.cgi?article=1008&context=aer

Yen, J., & Lee, C. (2011). Exploring problem solving patterns and their impact on learning achievement in a blended learning environment. *Computers & Education* 56, 138-145.

Zimmerman, B. J., & Campillo, M. (2003). Motivating self-regulated problem solvers. In J. E. Davidson & r. Sternberg (Eds.). *The nature of problem solving* (pp. 233-262). New York: Cambridge University Press.

Appendices

Appendix A: Human Research Ethics Committee Approval Letter

RESEARCH INTEGRITY
Human Research Ethics Committee
Web: http://sydney.edu.au/ethics/
Email: ro.humanethics@sydney.edu.au

Address for all correspondence:
Level 6, Jane Foss Russell Building - G02
The University of Sydney

3 December 2012

Dr Jen Scott Curwood
Faculty of Education and Social Work Education
Building - A35
The University of Sydney
Js.curwood@sydney.edu.au

Dear Dr Curwood

Thank you for your correspondence dated 26 November 2012 addressing comments made to you by the Human Research Ethics Committee (HREC).

I am pleased to inform you that with the matters now addressed your protocol entitled **"Assessment and Creative Liberty: An Action Research Study of Preliminary HSC English"** has been approved.

Details of the approval are as follows:

Protocol No.:	**15347**

Approval Date: 27 November 2012 First Annual Report Due: 30

November 2013

Authorised Personnel: **Dr Jen Scott Curwood**
Mrs Peta Gresham

Documents Approved:

Document	Version Number	Date
Participant Information Statement for Students	3	26 Nov 2012
Participant Information Statement for Parents/Guardians	3	26 Nov 2012
Parental (or Caregiver) Consent Form	2	29 Oct 2012
Student Consent Form	1	29 Oct 2012
First Survey	2	29 Oct 2012
Observation Checklist	2	29 Oct 2012
Semi-structured interview questions	4	21 Sept 2012

HREC approval is valid for four (4) years from the approval date stated in this letter and is granted pending the following conditions being met:

Condition/s of Approval

- Continuing compliance with the National Statement on Ethical Conduct in Research Involving Humans.

- Provision of an annual report on this research to the Human Research Ethics Committee from the approval date and at the completion of the study. Failure to submit reports will result in withdrawal of ethics approval for the project.

- All serious and unexpected adverse events should be reported to the HREC within 72 hours.

- All unforeseen events that might affect continued ethical acceptability of the project should be reported to the HREC as soon as possible.

- Any changes to the protocol including changes to research personnel must be approved by the HREC by submitting a Modification Form before the research project can proceed.

Chief Investigator / Supervisor's responsibilities:

1. You must retain copies of all signed Consent Forms and provide these to the HREC on request.

2. It is your responsibility to provide a copy of this letter to any internal/external granting agencies if requested.

Please do not hesitate to contact Research Integrity (Human Ethics) should you require further information or clarification.

Yours sincerely

Dr Margaret Faedo Manager, Human Ethics *On behalf of the HREC*

cc.   *pest1099@uni.sydney.edu.au*

This HREC is constituted and operates in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Human Research (2007), NHMRC and Universities Australia Australian Code for the Responsible Conduct of Research (2007) and the CPMP/ICH Note for Guidance on Good Clinical Practice.

Appendix B: School Executive Approval Letter

Dear ▮▮ and ▮▮,

I have been accepted into a Master of Education (Research) at The University of Sydney and I am requesting your support in undertaking a third Action Research Project in 2013 that will become the basis for my thesis. Please find below the details of my proposal. I appreciate your ongoing support with my professional development.

Thank you for considering this proposal.

Kind Regards,

Peta Gresham

Assessment and Creative Liberty: *Study of Preliminary HSC English*

Summary of the Research:

The research explores how 'flipping the classroom', and implementing collaborative and creative activity- based lessons with digital technologies can improve motivation, learning and achievement in Preliminary HSC English students. Furthermore, the research explores how to formally assess students so that they may present their knowledge and skills of course content with creative liberty. The benefits to students will be enriched learning experiences through creative activities and digital technologies. The research explores the impact and effect of empowering students to showcase their knowledge and understanding of course content with creative liberty.

Aims of the Research:

The aim of this research is to explore the emerging innovative teaching and learning culture in English based around the creative application of and recombination of conceptual frameworks of understanding, concepts, ideas and knowledge through digital technologies. *'There is an urgency for schools to make the transition to the new paradigm as learners have already made the transition and are becoming increasingly disengaged while they wait for the education system to catch up to how they are learning outside of school.'* Treadwell (2008: p.11).

The aim of this research is to explore innovative and flexible methods of assessment that fairly and accurately reflect the knowledge and understanding of our concept-thinking creative students. *'Assessments are primarily associated with competitive and hierarchical grading for education and professional purposes. They are therefore chiefly concerned with the recognition, reinforcement of socially normative or specifically required behaviour. Their characteristic mode is that of problem solving- providing answers to given questions.'* (Pope, 2005: p.54). How can this testing, that lends itself to rote learning, be reformed to more fairly and accurately reflect the knowledge and understanding of our concept-thinking creative students?

Participants

The participating students will be my 2013 Year 11 Preliminary HSC Advanced English Class. The class size will be approximately 20 and each student will be offered the opportunity to be a participant in this research.

Hypotheses

By adopting innovative and flexible methods of assessment, students are offered a

fairer and more accurate platform to showcase their knowledge, skills and abilities. This creative liberty will improve the academic achievement of students in Senior English. To test this hypothesis, students assessment results from the previous unit of work will be observed, showing insight into their performance in the more traditional style; hand written essay under examination conditions.

Action research, from a teaching philosophical perspective, is the chosen methodology for this investigation as it is practitioner based and focuses on action as a tool for research. As an informed way to improve my teaching practice, it drives a dialogue between my action and the intentions behind my actions (Waters-Adams 2006). I will analyse film and audio-recordings of students during classroom activities as well as during their formal assessment presentation. I will analyse informal interviews with students. I will analyse my journal records of conducted classroom observations. I will analyse student reflections statements and blog entries that will offer insight into engagement, attitude and understanding of the coursework. Students' results, as marked against the assessment marking criteria sheets, will be analysed.

The intervention will include the 'flipping the classroom' style of teaching and learning with activity-based lessons where students will compose podcasts, film trailers, e-portfolios, musical compositions, feature articles , websites and digital stories that development their understanding of the course content.

Students will then compose a response to the assessment task in a text type of their own choosing.

Potential Significance

- To enrich my ability to develop innovative lessons that have creative learning activities targeting student needs and that work across multiple technologies and through various communication modes.
- To enrich my ability to develop innovative lessons that provides opportunities for collaborative open inquiry where students discover or formulate and present a solution according to their own research and reflection.
- To enrich my ability to develop innovative lessons that have a transitive factor that allows students to develop their own pedagogy. Thus, allowing students to have some control over the way teaching and learning is facilitated in the classroom.
- To empower teachers, educators and Educational authorities to confidently develop flexible, innovative and creative teaching and learning resources.
- To empower teachers, educators and Educational authorities to confidently develop relevant and engaging 'flip lessons'.
- To empower teachers, educators and Educational authorities to move beyond the traditional setting of fact based, time based models of assessment and develops flexible , innovative and creative assessment tasks.
- To enable students to work collaboratively with creative tasks in the classroom to improve motivation and engagement with course content.
- To enable students to choose how they present solutions, knowledge and understanding of course content for assessment.

To see the collaborative efforts of teachers , educators and Educational authorities in developing such creative teaching tools, assessment tasks and marking criteria put into practice formally. The teaching profession is by and large capable of adapting to change given the challenge, given the resources and government support for the paradigm shift, concurrent with the digital technology revolution in Education.

I give permission for Peta Gresham to undertake the above Action Research Project at The King's *School in 2013.*

Dr ███████████
Headmaster, T████████████

Mr ████████████
The Head of English Department ████

Appendix C: Student Participation Consent Form

THE UNIVERSITY OF SYDNEY

Faculty of Education and Social Work

ABN 15 211 513 464

DR. JEN SCOTT CURWOOD
Chief Investigator
Lecturer of Secondary English and Media Studies

Room 627
Education Building A35
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 9351 4735
Facsimile: +61 2 9351 2606
Email: js.curwood@sydney.edu.au
Web: http://www.sydney.edu.au/

STUDENT PARTICIPATION CONSENT FORM

I,..[PRINT NAME], agree to participate in the

research project

Assessment and Creative Liberty:
An Action Research Study of Preliminary HSC English

In giving my consent I acknowledge that:

1.   The requirements for the project and the time involved in the project have been explained to me, and any questions I have about the project have been answered to my satisfaction.

2.   I have read the Information Statement and have been given the opportunity to discuss the information with my parents / guardians and with the researcher.

3.   I understand that being in this study is completely voluntary – I am not under any obligation to participate in the research.

4.   I understand that my involvement in the study is strictly confidential. I understand that research data gathered from the results of the study may be published however no information about my involvement will be used in any way that is identifiable.

5.   I understand that I can withdraw from the study at any time without prejudice to my relationship with the teacher, Peta Gresham, The King's School or The University of Sydney.

6.   I understand that I can contact Peta Gresham or Dr. Jen Scott Curwood to discuss this research at any stage and answer any questions that I may have.

7.   I consent to the participation in:

- Interviews   YES   ☐   NO   ☐
- Questionnaires   YES   ☐   NO   ☐
- Work Samples   YES   ☐   NO   ☐
- Collection of artefacts
  such as written responses   YES   ☐   NO   ☐
- Audio/Video recordings of
  classroom interactions   YES   ☐   NO   ☐

....
Signature of student

....
Please PRINT name

....
Date

Appendix D: Parental (Or Caregiver) Consent Form

THE UNIVERSITY OF
SYDNEY

Faculty of Education and Social Work

ABN 15 211 513 464

DR. JEN SCOTT CURWOOD
Chief Investigator
Lecturer of Secondary English and Media Studies

Room 627
Education Building A35
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 9351 4735
Facsimile: +61 2 9351 2606
Email: js.curwood@sydney.edu.au
Web: http://www.sydney.edu.au/

PARENTAL (OR CAREGIVER) CONSENT FORM

I,...[PRINT NAME], agree to permit

................…….....................................[PRINT STUDENT'S NAME], who is aged ....

years, to participate in the research project

Assessment and Creative Liberty:
An Action Research Study of Preliminary HSC English

In giving my consent I acknowledge that:

1. The procedures required for the project and the time involved for my son's participation in the project have been explained to me, and any questions I have about the project have been answered to my satisfaction.

2. I have read the Information Statement and have been given the opportunity to discuss the information and my son's involvement in the project with the researcher.

3. I understand that being in this study is completely voluntary – I am not under any obligation to consent to my son's participation.

4. I understand that my son's involvement is strictly confidential. I understand that research data gathered from the results of the study may be published however no information about my son nor I will be used in any way that is identifiable.

5. I understand that I can withdraw my son from the study at any time without prejudice to my or my son's relationship with the teacher, Peta Gresham, The King's School or The

University of Sydney.

6. I understand that I can contact Peta Gresham or Dr. Jen Scott Curwood to discuss this research at any stage and answer any questions that I may have.

7. I consent to my son participating in:

• Interviews	YES	☐	NO	☐
• Questionnaires	YES	☐	NO	☐
• Work Samples	YES	☐	NO	☐
• Collection of artefacts such as written responses	YES	☐	NO	☐
• Audio/Video recordings of classroom interactions	YES	☐	NO	☐

....
Signature of Parent/Caregiver

....
Please PRINT name

....
Date

....
Signature of Student

....
Please PRINT name

....
Date

Appendix E: Classroom Teacher's description of participants (prior to research).

Student Name	Reflections of classroom teacher on characteristics of learner
Participant A	Student enjoys exploring ideas more deeply. He is a quiet student who patiently examines a range of details and perspectives before formulating his own arguments. At times his enjoyment of the process of analysis can limit the time he has to complete a response to set questions. He prefers to read the range of supplementary support material made available to him before asking questions or seeking support from friends or teachers.
Participant B	Student is usually charged with enthusiasm and optimism, however, is prone to bouts of despair and cynicism. When he is engaged and confident he is a leader in the classroom who motivates others and demonstrates an ability to be efficient and productive. However, there are lessons whereby student is paralysed by the volume of coursework or challenge of set task.
Participant C	Student enjoys exploring literature and is visibly energized by concepts set for study. His enthusiasm is electric and he often sparks debates in the classroom. He is confident with his ideas and enjoys the process of unravelling arguments more deeply. At times his passion for analysis can limit the time he has for completing his composition / responses to set tasks to meet deadlines. He is a deep thinker who likes to work alone, however, when he stumbles across an idea he is eager in sharing it with others.
Participant D	Student is a quiet student who prefers to listen to others. He completes coursework, however, he is inconsistent in his efforts. Whilst he is confident in his ability to understand the concepts and texts studied, he can struggle to commit his ideas in writing. He finds composing formal analysis and academic arguments tedious and challenging and often dismisses the value of this process. When approached he can freely discuss a range of ideas with maturity and sophistication, however, too often he is reluctant to explore these in writing.
Participant E	Student has limited motivation in this subject. This is partly because he is not confident in his ability to understand course concepts or compose an adequate formal academic analysis for assessment purposes. What is interesting is he is more likely to play 'devils advocate' and access course content from an original perspective. He is a skeptic in nature. Student is reluctant to commit to goals and rarely meets set deadlines. He prefers to work alone, however, will share ideas and information when approached by others.
Participant F	Student is an abstract thinker and develops original ideas. He is a risk taker and enjoys the freedom of imaginative tasks. Too often he can overlook the importance of planning and preparation and struggles to stay on task. He is a social student and asks questions and seeks guidance with his learning. He needs supervision to stay on task and meet the requirements of set activities.
Participant G	Student is a reluctant writer who doubts his ability to compose formal academic essays. He is excited by project based learning and the freedom this offers him to showcase his knowledge and understanding, however, limited confidence in this subject often hinders his ability to take risks with his learning. He is a sociable student and lacks self-discipline to stay on task when working with his peers. He is a kinesthetic learner.

Participant H	Student is a confident leader in the classroom who can be distracted by his more sociable peers. He maturely isolates himself from his friends on occasions in order to concentrate and complete coursework. He is an adventurous young man who will take risks and dare different approaches with his learning. He is reliable in asking questions to clarify expectations and seek guidance when needed.
Participant I	Student is an excellent listener and follows instructions with precision. He manages him time wisely and prefers to work independently. He is reliable in immersing himself in challenging tasks and enjoys thinking deeply about concepts studied. He rarely asks questions, however, this is more likely because he is proactive in reading and using the wide range of supplementary and support material made available to the class. He takes pride in producing excellent work with independence.
Participant J	Student can feel intimidated by the volume of coursework and open-ended tasks. Whilst he does not doubt his ability in this subject, his faltering motivation hinders his progress. He is inconsistent with his endeavours: at times he leads discussions, however, on other occasions he seems aloof. His notes and records reflect his unpredictable approach in that there are some excellent notes and yet there are also incomplete tasks, missing tasks and sketches indicating he is off topic or distracted.
Participant K	Student prefers smaller, short answer styled tasks and can be overwhelmed by large-scale projects. This is primarily because he grapples with the range of roles associated in completing those tasks. He prefers to work alone and this can be problematic as it is difficult to know when he needs direction and support. He is a deep thinking student and can often spend a great deal of time processing and interpreting ideas raised in texts. He is a most creative thinker and is reliable in offering fresh insights and perspectives when responding to questions.
Participant L	Student is determined to achieve in this subject, and whilst lacks confidence in his ability, courageously engages with classroom activities and coursework. He has excellent time management skills and is consistently methodical in his approach to completing tasks. Student takes pride in both the work he produces and the admiration others have for his work ethic. He prefers to work independently, however, is very cooperative when others approach him for ideas or support. He is enthusiastic to share his own insights when asked.
Participant M	Student is an extrovert and is prone to diverting his energies to entertain his peers at the expense of responding to set learning tasks. At times this distraction is to avoid challenging coursework, as he can be idle or reluctant to approach activities that he will find complicated or difficult. The student is open about attempting to find 'short cuts' or 'adequately' completing 'bare minimum' of coursework. He is aware he has untapped potential in this subject, however, grapples with the idea of applying himself. Student engages in the coursework at a surface level.

Participant N	Student can suffer anxiety about the quality of his formal analysis. He is emotionally connected to assessment results and can be distressed about a perceived poor performance that impacts upon how he approaches fresh units of work. Whilst he is naturally curious and enthusiastic about the texts studied, he can be nervous in his approach to written coursework. He is active in seeking reassurance from both the teacher and his peers when starting activities. He is very self-aware and is conscious in trying to have courage in persevering with his formal analysis of literature.
Participant O	Student is focused, driven and determined to achieve in this subject. He is reliable in staying on task and reviewing course content with enthusiasm. Student is a leader and asks questions or supports others in solving problems. He exhibits excitement for classroom activities and perseverance to overcome challenges. He is a logical thinker and eagerly debates different perspectives of concepts. He is a risk taker and listens to constructive criticism with maturity.
Participant P	Student is mature and responsible who works industriously to complete coursework to the best of his ability. He enjoys challenges and is optimistic in his approach to study. His desire to achieve can, at times, mean he is indecisive for fear of 'making the wrong choice'. Student works well independently and seeks support, guidance or reassurance from the teacher and his peers appropriately.
Participant Q	Student finds both the literature set and concepts studied challenging. Student can be slow to start activities as he finds it challenging to process the expectations of set tasks and interpret / comprehend distributed support material. He is conscientious and seeks the support of the teacher and his peers in order to complete coursework and meet deadlines.
Participant R	Student is sociable and can be easily distracted by his peers. He does have a sense of responsibility and offers meaningful contributions to classroom discussions, sharing his ideas and information. He needs supervision to carry out all expectations of set tasks. He lacks organizational skills and can lose focus on the task at hand; however, he is able to prioritise when deadlines approach.

Appendix F: Preliminary student survey

Students will answer the survey questions using the online 'Values Exchange' program. Responses will remain private and confidential.

First Survey – Prior to commencing unit of work.

1. Describe the experience of *preparing* for traditional hand written essays under exam conditions.

2. Describe the experience of hand writing essays under exam conditions.

3. Do you ever read essays? For example, do you read your classmates essays, the published essays attached to our ilearn page or essays on the BoS website?

4. How well do you express your knowledge and understanding of concepts well in Essays?

Excellently	
Very well	
Satisfactorily	
With difficulty	

Please explain

_____

_____

5. When someone says 'be creative', what do you think it means?
6. Do you think essays can be creative in their style?
7. When you are creative, what does it feel like to you?
8. If you could express a feeling, an idea, a thought, in any way, how would you do this?
9. How well do you express yourself creatively?

Excellently	
Very well	
Satisfactorily	
With difficulty	

Please explain

_____

_____

Appendix G: Semi-structured student interview questionnaire

1.   Describe the style of lessons you enjoy. Do you prefer teachers to present information, lecture style or do you prefer activity-based lessons? Why?

2.   Do you prefer to complete classroom activities independently, in small groups or as a whole class? Why?

3.   Describe the style of classroom activities that you enjoy?

4.   Do you prefer to use your computer during lessons? Why?

5.   Can the computer be distracting during lessons? Why?

6.   When you want to find out more information about something introduced in class, where do you go- where do you find more information? *(If the answer is 'google it'… where do you most often go from the google link? – Youtube, Wikipedia?)*

7.   How often do you visit our class ilearn page for more information about the course we are studying?

8.   What is the most useful feature of the class ilearn page?

9.   Do you think the class ilearn page has any shortcomings? If so, what are they? How could this feature be improved?

10.   How often do you read classmates responses to set questions on the ilearn page?

11.   How often do you comment on classmates responses to set questions?

12.   Describe the feeling of creating your own project in a format of your own choice and designing your own style in responding to an assessment question?

13.   Where and when do you do the best thinking about your project?

14.   What are the challenges in selecting your own format and designing your own style in responding to an assessment task?

15.   What are the benefits in selecting your own format and designing your own style in responding to an assessment task?

16.   Have you learned more about the texts we are studying from your classmates' projects? Have you seen and discussed some of the other students' projects?

17.   Have you learned any new computer skills? Picked up any new 'tricks' in how to use technology to demonstrate your understanding of the course? If yes, how did you learn these?

18.   How do you think teachers should use class time to be most effective? What should the teachers' role be?

Appendix H: Post inquiry student survey

Students will answer the survey questions using the online 'Values Exchange' program. Responses will remain private and confidential.

Second Survey – Post assessment and concluding unit of work.

1. Describe the experience of hand writing essays under exam conditions.

2. Do you ever read essays? For example, do you read your classmates essays, the published essays attached to our ilearn page or essays on the BoS website?

3. How well do you express your knowledge and understanding of concepts well in Essays?

Excellently	
Very well	
Satisfactorily	
With difficulty	

Please explain

_____

_____

4. When someone says 'be creative', what do you think it means?

5. Do you think essays can be creative in their style?

6. When you are creative, what does it feel like to you?

7. If you could express a feeling, an idea, a thought, in any way, how would you do this?

8. How well do you express yourself creatively?

Excellently	
Very well	
Satisfactorily	
With difficulty	

Please explain

_____

_____

9. Describe the experience of *creating* your response to the assessment task

10. What did you find challenging about composing your creative response?

11. What are some of the better features of your creative response?

12. Describe the experience of *presenting* your response to the assessment task.

13. Do you think your response to the assessment task had any shortcomings? If so, what were they?

14. Did you enjoy watching other students' creative responses? What did you learn from this experience?

Appendix I: Screenshots of students' blogs, forums and wikispaces and skype chats.

Empowerment in The Dreamers

Does a ███████ that there are other characters besides Dolly who are empowered in The Dreamers? I constantly █████████ scenes where Dolly is empowered as the leader of the household, but does anyone know of other scenes in which different characters are empowered?
From,
Spit

I think Meena and Shane are empowered in Act Two, Scene One, from the beginning until Dolly comes home. They take charge of the house and look after Worru unitl Dolly returns. Their empowerment is almost forced on them but they accept it and utilise it to it's full potential.
Adrian

You are absolutely right about Dolly Adrian... but do you mean Robert- not Shane? I'd argue Robert is empowered as he ███████mself as a reliable role-model for Shane. I would also argue The Dancer serves to remind us of traditional elders empowerment- the importance of the natural world to practise The Dreamtime.

Hide Revisions

Revisions

Date	Author	
27th Apr 2013	Mrs Peta Gresham	
27th Apr 2013	Mrs Peta Gresham	Compare
4th Apr 2013	Mrs Peta Gresham	Compare
4th Apr 2013	Adrian Bowen	Compare
26th Mar 2013	James Spittaler	Compare

Modified █████████resham on Saturday April 27th 2013 5:03pm

Post Reply · Lock Thread · Delete Thread

Thomas Wearn Posted 1 month ago
Throughout Act 1 scene 4, we as the reader often see empowerment through the characters in the dreamers. We first see Worru showing empowerment in the play when he in hospitalised through the drink, although he is disempowered through alcohol and suburbia in this scene he still holds some power over the family as he is telling the story about the nurses, we see that he holds this power when the boys of the family are engaged to what he is saying and want to hear what he has to say " roy says No, never heard that one, pop. Worru- Yeah, you know. Eli- No 'e don't, Unc. Come on, what 'appened? Roy- Yeah, Unc, tell us the yarn" This particular part of the scene provides the reader evidence of the power and certain empowerment Worru holds over the boys and how he can easily engage them.

Tom Wearn

Reply

Sam Porter Posted 1 month ago
Throughout this scene, Act 1 Scene 4, we are witness to the disempowerment of Worru due to his life in suburbia and alcohol, however Worru can also be seen empowerment through the respect and engagement the other characters show towards Worru when he tells his stories of the past. Worru's disempowerment is made evident through alcohol and his isolation being trapped in suburbia. Through the blurred scattering of the native language, the dying of aboriginal culture can be seen as suburbia takes over what was known as the dreamtime. This struggle of the culture takes its tole on Worru as he fights to live within a urban community where Worru cannot embrace the dreamtime and culture of what he desires and needs. Due to the inability to practice the dreamtime, Worru indulges in excessive drinking as an anaesthetic to fill the void within him, which disempowers the aboriginal elder and takes away his authority. However in parts of the scene Worru is empowered through speech and stories as he draws upon times of the dreamtime before suburbia took over. Through these stories Worru is empowered as he paces on the dreamtime as the elders have done before him, and the children look to him immersed in the stories with full attention.

Samuel Porter

Reply

Mrs Peta Gresham Posted 4 weeks ago
Good ideas Sam... just some expression needs softening- guard against suggesting 'the dying aboriginal culture' and instead perhaps 'threatned aboriginal culture' or 'decaying indigenous culture'... You have a few spelling errors/ clunky sentences- but your sentiments are really very good indeed!

Reply

110

How does Henry Vth handle insult?

Mrs Peta Gresham
Posted 1 month ago

Why does the gift, a chest of tennis balls, infer about King Henry Vth? Why is it personally insulting to the English King? How does he handle the insult? Does he lose his temper and lose control? Is he empowered or disempowered in the face of insult?

Mrs Peta Gresham Commented 1 month ago

Interesting Jordan- I'm not sure I agree with you. Henry never makes any apologies for his wayward youth- and so is not in a position of disempowerment. Rather he reckons with the Dauphin- suggesting France is mistaken for not considering how Henry Vth has learned - what he has learned- from these days. Henry Vth understands the common man- he understands the kind of men who will fight on the battlefield. He has drunk with them, played sports with them and at times brawled with them whilst partying... how could this help a leader?

Angus Calvert Commented 1 month ago

As Jordan stated previously, the gift of tennis balls is a clear insult at the irresponsible past condemned on Henry V. Henry does not lose temper in this speech, however he realises that the French are aware of his weaknesses. He becomes empowered as he decides to make the first move in terms of war. The church urges him to act swiftly and he declares war on France.

Jordan Steinberg Commented 1 month ago

The French leader sending a chest of tennis balls to King Henry Vth is a blatant insult about the King's past. The insult, for a short time disempowers the King as it points out a weakness in his past. This disempowerment of the King does not last long as the King makes a speech in retaliation making a joke of the theme of 'tennis' while hinting at an attack on France. "we have match'd our rackets with these balls" "we will, in France... play a set" "that all the courts in France will be disturb'd"

Add your comment

Add comment

God's Power

Return to homepage | Export | Lock | Delete | Modify

In Henry V speech in **ACT 2 SCENE 2** there are many references to Gods power over man. Henry himself makes reference when almost condemning the men that he has found guilty of high treason and this ultimately shows his empowerment. These references make King Henry more powerful because in context with those times it was said that God chose the Kings. Henry in the final part of the speech goes further to condemn the men with all of his power given to him by god. *"Arrest them to the answer of the law; And God acquit them of their practices"* He orders god in this line not asking but telling his court that God will undoubtedly condemn them. The empowerment he finds in his position that is appointed by God shows how his faith leads all of his decisions.

Interesting... I think Henry SHOWS mercy here. Rather than suggesting God will Condemn these traitors- Henry Vth asks God to 'aquit them of their practices'. Henry Vths's final lines offers the traitors a chance of salvation! Henry is asking God not to condemn them to eternal damnation! For all Henry Vths hurt, betrayal, dismay and disbelief, for all his anger- his fury, his agony, his pain... he still has the strength to permit these wretched souls a chance of salvation... Wow... what a King.

↻ Hide Revisions

Revisions	
Date	**Author**
18th Mar 2013	**Mrs Peta Gresham**

Appendix J: Sample of students' draft work with teacher comments

Participant H (Project - Radio Interview)

Peter: Hello and welcome viewers to another episode of how art reveals the influences of power throughout time. I shall be your host for tonight ████████ 'Today our special guest is from ████████████, he has performed in many Shakespearean classics and knows all of the plays incredibly well for such a young age. Ladies and gentlemen please welcome Thomas Lane! Our play for tonight is obviously a Shakespearian classic! Henry the Vth. Shakespeare is one of the masterminds of all time. ~~Henry the Vth is another of his fantastic creations.~~ ~~Inspired by the great English king~~ Henry the Vth tells a tale of one man uniting England and against all odds defeating a seemingly unbeatable foe in the French army.
Now Tom you have had a life full of ████████ how have you come to know these fantastic plays and have these plays changed you?

Tom: Well yes ████ offers a lot of great opportunities to study the great works of Shakespeare in both English and of course Drama. Shakespeare really manages to bring a lot out in my works, which is why I wish to become an actor when I leave school.

Introduction- early identified themes- transformation / change.
Peter: Now Tom lets move on to Henry Vth. Lets begin with Act 1 Scene 1. We would consider it as one of the key scenes in the whole play as it displays Henry's massive transformation from a "rogue" who filled his time up with riots, banquets, sports, to a king and a great leader. The change from disempowerment to empowerment is a miracle which the Archbishop and Ely are completely astonished by. Can you give us a greater insight into this **Thomas**?

Thomas: I certainly can **Peter.** You know you are empowered when other people are talking about how great you are. ~~I have an extract from the speech here~~ *"Consideration, like an angel, came And whipp'd the offending Adam out of him Leaving his body as a paradise"* Shakespeare chose ~~to use~~ Biblical allusion and a simile here to show the dramatic and vivid change that has occurred. Henry is ~~being~~ likened to an angel and that really shows how holy

TKS 22/9/14 2:31 PM
Comment [8]: When you read this- you will have to change your voice to be loud, exciting- as though you are pumped- as this is how talk show hosts promote their brand.

Have you thought of recording yourself- either just the voice / or full film as the talk show host- and you can press pause during presentation to respond as Thomas Lane...
How are you presenting this?

TKS 22/9/14 2:31 PM
Comment [9]: One of the great leaders of all time.

You also repeat 'Shakespeare three [....]

TKS 22/9/14 2:31 PM
Comment [10]: Bit shallow to – response too thin inconsideration of question asked. Consider touching on [...]

TKS 22/9/14 2:31 PM
Comment [11]: Instead- because of above comment- carry on with Yes Henry Vth remained stoically [...]

TKS 22/9/14 2:31 PM
Comment [12]: Thomas wouldn't need the script- he knows it by heart.

TKS 22/9/14 2:31 PM
Comment [13]: really need to deconstruct the allusion to original sin- Adam and the apple'.

TKS 22/9/14 2:31 PM
Comment [14]: worthy to deconstruct this simile- deconstruct comparison to 'paradise'

Participant G (Project – Documentary)

The dreamers conveyed the aboriginal family as roles reversed. As dolly was empowered, we see Roy disempowered: he abuses alcohol, he even *"spent the kid's dinner money of alcohol."* Dolly's aggressive accusation humiliates Roy as a father who neglects his children. It also conveys a sad man. Roy's alcohol dependence means his own children are neglected. Similarly to Worru, I think we can blame the change of living conditions. The Aboriginals never had a problem with alcohol until the establishment came with all the problems. One interesting aspect in which I noticed was the social glue that alcohol held. We notice that the men are all united when they are drinking alcohol. This is shown in Act 2 Scene 3 when they are playing poker. They are all together and united, until there is a fight. *"He picks up a flagon and sways across the couch. Elie triumphantly shows his cards."* The imagery of drunken men shows the social glue of alcohol. They are so powerless due to the liquid, although it seems to keep them together. However, there are always arguments which can be blamed for being drunk.

Participant O (Project – Documentary)

TKS 22/9/14 2:35 PM
Comment [16]: capital

TKS 22/9/14 2:35 PM
Comment [17]: needs rephrasing. Jack Davis inverts the roles of aboriginal men and women in his play The Dreamers.

TKS 22/9/14 2:35 PM
Comment [18]: bad habit to neglect capitals Seb.

TKS 22/9/14 2:35 PM
Comment [19]: check you have quoted accurately

TKS 22/9/14 2:35 PM
Comment [20]: Rephrase to be more specific- suburbia and the house offers no platform for these men to lead. Displacement has meant disempowerment.

TKS 22/9/14 2:35 PM
Comment [21]: ironic? Funny statement- united together- and then a fight? I'm laughing Seb.

You need to identify the stage directions as the technique

Participant L (Project – Poem)

Classmates, ███████, this morning I shall be talking about the way in which William Shakespeare and Jack Davis shape empowerment and disempowerment in their respective texts. I believe, the most effective way to present this is through a poem; both authors were play writes thus a creative essence should be used when presenting their work.

King Henry the 5th, the title, the character is the play.
Ely and Canterbury, The Church felt much dismay.
On Henry 4th's death the young rogue who was astray
Transformed to dazzle the power of the day.
"Consideration, like an angel, came
And whipp'ed the offending Adam out of him"
The simile aligns Henry Vth with the divine and the celestial
He is now a leader of empathy- it's the church's testimonial
The metaphor suggests Henry is a sinner no more
Assured through biblical allusion -original sin and Christian law.

Worru is an aboriginal elder, disorientated, displaced, from The Dreamtime.
The Dreamers, is a microcosm of a threatened culture, an Australian a crime.
Worru is unaccustomed to-the house, to welfare- to this new age
And Davis depicts an Australian tragedy upon the stage
"toast, I save from breakfast," symbolizing the family affairs
Worru's old Australia, full of dreaming! No one seems to care
Worru's yearning for his dreaming, he would openly share,
But the problem in my opinion, the white man was just- unaware.

The 15th century England and France two mighty rival monarchs reigned
A natural order of God. The Church and crowned King ordained.

TKS 22/9/14 2:29 PM
Comment [5]: recite a poem, inspired by William Shakespeare and Jack Davis's plays and their shaping of empowerment and disempowerment in Henry Vth and The Dreamers.

TKS 22/9/14 2:29 PM
Comment [6]: Both playwrights were creative artists and so I felt it was fitting to write a creative poem reflecting on their work.

TKS 22/9/14 2:29 PM
Comment [7]: What do you mean 'family affairs?' Not sure this quote gives great insight in Worru- and if it does… you need to treat it with more insight. The next three lines are super- I would replace the toast quote with something that evokes Worru's 'old Australia' as you put it.

Peta Maree Gresham
Add Credit

Search

☆ ███████
Online

Video Call

22/04/13 11:30 AM
Peta Maree Gresham has shared contact details with adi672.

███████
Hey miss do you want to skype now ?   22/04/13 12:00 PM

Call started   22/04/13 12:00 PM

1)   Betrayal/Disappointment
Henry V, Dolly handling betrayal of trust ($$)

Dolly(pg 27)- You're not only useless, you're a bloody liar as well. You spent the kid's dinner money, didn't you? Didn't you?

Henry(act 2 scene 2) – "The mercy that was quick in us but late,
By your own counsel is suppress'd and kill'd:
You must not dare, for shame, to talk of mercy;"

""What shall I say to thee, Lord Scroop?, Thou that didst bear the key of all my counsels"" That knew'st the very bottom of my soul, That almost mightst have coin'd me into gold,""

"Why, so didst thou: seem they grave and learned?
Why, so didst thou: come they of noble family?
Why, so didst thou: seem they religious?

Online

Video Call

And God acquit them of their practices

Peta Maree Gresham

Theatre, stage play rests on either dialogue or stage directions — 22/04/13 12:03 PM

So here- both Davis and Shakespeare employ dialgoue that directly demonstrates how the characters react to disappointment — 22/04/13 12:03 PM

You're, Your'e twice and 'you' three time — 22/04/13 12:08 PM

These are personal pronouns... — 22/04/13 12:08 PM

tone that is accusing — 22/04/13 12:08 PM

condemining in tone- the repetition of personal pronouns... — 22/04/13 12:08 PM

CONTRAST — 22/04/13 12:10 PM

In contrast- Dolly's subjective language 'Liar' and then implicitly calls her husband a thief' — 22/04/13 12:11 PM

In contrast Henry V's subjective language 'learned, noble and religious... — 22/04/13 12:11 PM

the contrast is- Dolly seems more heated, more ferocious, more unforgiving... (perhaps because she is no longer suprised! Henry was shocked — 22/04/13 12:12 PM

shows surprise! — 22/04/13 12:12 PM

Appendix K: Screenshot of filmed lessons

Appendix L: Sample of students survey comments.

A1   ƒx | user

	X
1	**How do you think teachers should use class time to be most effective? What should the teachers' role be?**
2	Unsure
3	Visiting students individually throughout the week and spending time talking to them.
4	Answering any questions that can't be asked over ilearn/email. Teacher's role should be encourager and helper
5	I think the teachers role should be what it is now, to be in control of a group of students and to talk to them and teach them what they need to know but also to develop some sort of relationship between the teacher and their students.
6	in class, i think when we are continuing on with our own project, we can tell the teacher points we find interesting, and if the teacher believes it to be debatable, the teacher can then present it to the whole class to get various ideas and opinions on it.
7	They should start the class by explainging things then finish with giving the work so kids understand how to do their work
8	The teacher should work with the students rather than against them████████h works in a very positive way with us and helps us whenever she can
9	Teachers should be there to guide students when they are stuck and teach them topics which they find difficult.
10	I think teachers should give students information as well as making sure they are getting on with their work.
11	to help any boys who ask for help, and maybe push to see more work to make sure boys are actually getting a move on not just sitting there.

L
When you want to find out more information about something relevant to your inquiry, where do you go- where do you find more information?
Search engine on the internet / intranet: google, destiny quest|Friends and peers to talk to
The ilearn page: Attached resources, collaborative forums blogs & wikis, |Friends and peers to talk to |Teacher
The ilearn page: Attached resources, collaborative forums blogs & wikis,
The ilearn page: Attached resources, collaborative forums blogs & wikis, |Friends and peers to talk to |Teacher
The ilearn page: Attached resources, collaborative forums blogs & wikis, |Search engine on the internet / intranet: google, destiny quest|Friends and peers to talk to
The ilearn page: Attached resources, collaborative forums blogs & wikis, |The student handbook: Hardcopy of material distributed at the beginning of the study|Friends and peers to talk to |Teacher
The ilearn page: Attached resources, collaborative forums blogs & wikis, |Friends and peers to talk to |Teacher
The ilearn page: Attached resources, collaborative forums blogs & wikis, |Friends and peers to talk to |Teacher
Teacher
The ilearn page: Attached resources, collaborative forums blogs & wikis, |Friends and peers to talk to
The ilearn page: Attached resources, collaborative forums blogs & wikis,
The student handbook: Hardcopy of material distributed at the beginning of the study
The ilearn page: Attached resources, collaborative forums blogs & wikis,
Search engine on the internet / intranet: google, destiny quest|Friends and peers to talk to |Teacher

Appendix M: Inquiry-based approaches to learning. Student support worksheets

Data Digger Worksheet 1 # Concept Mapping Worksheet
Use the following worksheet to record notes as you navigate through a text.

Reading Log		
Source (citation)		
My Reading notes	Concept map of ideas I am encountering	Ideals related to Empowerment and Disempowermnet
Summary of my understanding;		

Data Digger Worksheet 2 # Discovering Impact
Use the following worksheet to record notes as you navigate through a text.

Key Speech / Key Scene		
What happened and who is affected?	How?	Implications for empowerment and disempowerment?
In view of this information….		

Data Digger Worksheet 3 # Understanding perspectives
Use the following worksheet to clarify how the characters are positioned

Key event / significant scene / issue		
Outline of facts. What is undeniable		
From the perspective of character 1	From the perspective of character 2	From perspective of character 3
Insight into values / ideals	Insight into values / ideals	Insight into values / ideals
Implications for empowerment / Disempowerment	Implications for empowerment / Disempowerment	Implications for empowerment / Disempowerment
From considering all perspectives – my opinion is because…		

Data Digger Worksheet 4 # Exploring Concepts and Issues about Empowerment / Disempowerment
Use the following worksheet to record notes as you explore a speech or key scene

INTERESTING: Facts, Opinions, Arguments, Observations and key Quotes What does the author want us to know?	THINKING Connections, Inferences, Patterns, What has the author 'said'? What does the author 'mean' or 'infer'? Has the author tod us this before?	QUESTIONING What are the implications about *empowerment and disempowerment*? How are these ideas made clear?	DISCOVERING I didn't know that…. My opinion of that is….

I have decided to investigate
_____

because
_____

Data Digger Worksheet 5# Exploring a texts context and considering bias
Use the following worksheet to record notes as you explore how the text positions the audience.

Context	
What is the context of the play?	
Historical	
Political	
Environmental	
Social	
Evidence of bias	
Exaggeration	
Prejudice	
Inclusion/ Exclusion	
Charged words	
Overgeneralisation	
Opinion asserted as fact	
My Conclusions	
Whose perspective is included? Whose voice is excluded? What is the purpose?	

Data Digger Worksheet 6# Exploring a particular focus with depth
Use this worksheet to explore an idea more deeply

Focus Inquiry:			
Big Idea 1.		Big Idea 2.	
Supporting info a)	Supporting info b)	Supporting info a)	Supporting info b)
Textual Detail: Best key scenes and speeches. Best quotes.			
Textual detail a)	Textual detail b)	Textual detail a)	Textual detail b)

Questioner Worksheet 1 # Building thinking questions
Use this template to begin thinking about the texts and empowerment and disempowerment.

I need to know	
I wonder if	
Perhaps	
How?	
Why?	
Which?	
Should?	

Questioner Worksheet 2 # Authorial reading
Use this menu of questions to dig into how the composer positions the audience

- What is the author writing about? What is going on?

- What does the author want the audience to know?

- What does the author want the audience to notice?
  What does the author wan the audience to believe?

- How does the audience want the audience to react?

- What important information does the author present here?

- What is the author's agenda or purpose?

- What point of view or perspective is being expressed?

- What is the author's point?

- What can we deduce from the key details?

- Did the author explain this clearly?

- Are we convinced of their point of view?

- Is this perspective consistent with what the author communicated earlier in the text?

- What differences or similarities do we see between this key scene or speech and others?

- What ideas are puzzling?

- What would we like to know more about?

- How might or should what we are learning influence our choices for our personal behaviour in the future?

- How might or should what we are learning saying about future social consequences?

- What might be the future effects of the situations described?

- How do the ideas connect to what we already care about?

- How do they relate to our own values, attitudes or beliefs?

Questioner Worksheet 3 # From advice to action
Use this template to help overcome a challenge or obstacle

Topic, concept, issue of concern Question: Why it is important: Predictions		
Expert 1	Expert 2	Expert 3
Advice	Advice	Advice
Resolution and planned action		

Reflector Worksheet 1# Use the reflection prompts to help you make connections to your discoveries.

Reference text / Key Scene / Specific Speech _____

A big idea I discovered is:
I can use this information
I was surprised to find out that   because
I didn't know that
I think that   because
The most important thing to remember is
I wonder if

Reflector Worksheet 2 #   Inquiry Journal

	Initiation	Selection	Exploration	Formulation	Collection	Completion	Assessment
	When I began the inquiry Into empowerment and disempowerment	When I chose the key scenes and selected speeches	When I explored the texts	When I formed a vision on how best to present my knowledge and understanding	When I collected information to build the project	When I completed the project	When I finalized the presentation
	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /
Thoughts							
Actions							
Feelings							

Wordsmith Worksheet 1#

As you navigate through a text, watch for new and interesting words or phrases. Record these and identify how the language shapes ideas about empowerment and disempowerment.

Interesting word, phrase (quotes)	Techniques identified	What the word or phrase means and how the language shapes ideas about empowerment and disempowerment.

Questioner Worksheet 3 # From advice to action

Use this template to help overcome a challenge or obstacle

Topic, concept, issue of concern		
Question:		
Why it is important:		
Predictions		
Expert 1	Expert 2	Expert 3
Advice	Advice	Advice
Resolution and planned action		

Reflector Worksheet 1# Use the reflection prompts to help you make connections to your discoveries.

Reference text / Key Scene / Specific Speech _____

A big idea I discovered is:
I can use this information

I was surprised to find out that because
I didn't know that
I think that because
The most important thing to remember is
I wonder if

Reflector Worksheet 2 #   Inquiry Journal

	Initiation	Selection	Exploration	Formulation	Collection	Completion	Assessment
	When I began the inquiry Into empowerment and disempowerment	When I chose the key scenes and selected speeches	When I explored the texts	When I formed a vision on how best to present my knowledge and understanding	When I collected information to build the project	When I completed the project	When I finalized the presentation
	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /
Thoughts							
Actions							
Feelings							

Wordsmith Worksheet 1#
As you navigate through a text, watch for new and interesting words or phrases. Record these and identify how the language shapes ideas about empowerment and disempowerment.

Interesting word, phrase (quotes)	Techniques identified	What the word or phrase means and how the language shapes ideas about empowerment and disempowerment.