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Heutagogy for Engagement: The need for self-directed learning opportunities for 21st-century students

Heather McMillan

The purpose of this MCE Change Project was to investigate how educators can address the growing issue of engagement with NCEA senior English students, and how we can make learning more relevant and compelling using heutagogy.

The problem of engagement in New Zealand state secondary schools is not a new one, but one that educators are starting to investigate in more depth. Anecdotally, educators know that students' learning is negatively impacted by absenteeism and disengagement. This anecdotal information is supported by the Ministry of Education NZ Schools Attendance Survey (2019). Using data received from 2184 schools, equating to 96% of enrolled students in New Zealand, the report shows that regular attendance rates have been declining since 2015 and that the levels were declining more quickly in 2019. This lessening of attendance and engagement is evident across mainstream public schools in Aotearoa/New Zealand, including for our high achieving, senior English students who have, for the most part, been successful in the current system.

The goals of this project were to:

- Create a scheme of work that redesigns the Year 12 NCEA English course at a large, urban, decile 7 high school in Aotearoa
- Help increase engagement, achievement and attendance for all students
- Make stronger connections with students and their whānau
- Involve students and whānau in decision-making processes
- Embed Taha Māori and Te Tiriti into all future planning and assessment tasks

An Action Research model was the most appropriate for this project. As Jean McNiff (2000) remarks in her research, 'action researchers are real people in real situations'. Action research allowed this project to do what Eileen Ferrance (2000) identifies as a clear path to reach the heart of the problem and begin a course of authentic change by beginning 'a cycle of posing questions, gathering data, reflection, and deciding on a course of action'.

This MCE Change Project undertook to plan a heutagogical, student-determined scheme of work that was based on the voice and experiences of current Year 11 and Year 13 students, grounded in current research and sustainable practice. My student participants were sixteen mixed-ability Year 11 ākonga from three English classes who were invited to complete a ten-question survey, shared with them via Google Forms. They were asked to indicate, in the first question of the survey, how engaged they estimated themselves to be in their English class, on a 1-5 scale. The following questions asked

them to justify their answers to question 1, and then to extend their thinking about engagement in the wider school and beyond the school gates.

The data from the student surveys can be summarised into four key findings:

- Engagement is a complex issue but self-directed learning could provide a tool to allow students to co-construct their own learning programme while still meeting NCEA requirements.
- When students are at their most engaged, they are involved in activities that promote positive feelings, are active and social, and challenge them in some way.
- A number of students see engagement as compliance; they are engaged if they are 'doing their work'.
- Teachers have a significant role to play in creating a warm, supportive classroom environment that is engaging.

These findings link to discussion by educational researchers Bob Dick and Stewart Hase about students needing to 'unlearn' their roles as passive receptacles of knowledge (Dick, 2013; Hase, 2013) and instead need to see themselves as co-investors in their own education. Many students in our current system feel that education is something that is 'done to them' (Leadbeater, 2005). Both the research and the participant responses emphasise the need for more time to be spent on metacognition as an introduction to a heutagogical course of study, and by establishing weekly goals, questions and reflections as part of the 'double-loop learning' process (Hase & Kenyon, 2013).

The project also sought the viewpoint of six staff members from four faculty areas - English, Media, Visual Art and Mathematics. These teachers provided individual points of view about engagement and self-directed learning within their own classrooms and subject areas. The six teachers returned very different responses to the eleven questions, but some interesting trends appeared as the responses were analysed.

All six kaiako surveyed identified workload as a negative aspect of self-determined learning. Research-based on classroom practice suggests ways to mitigate this problem by providing 'flipped learning' resources on a class website, providing regular opportunities for student reflection, keeping detailed records and having regular learning conversations (Blaschke, 2013; Dick, 2013; Hase & Kenyon, 2015). Teacher workload is an aspect of this project that will be reviewed regularly as the heutagogical scheme of work is implemented in 2021.

Another area of concern raised in the teacher survey responses was around maintaining academic rigour for NCEA students. Staff from the English department were concerned that allowing students to co-construct learning would cause a reduction in higher-order thinking skills and that learning could become superficial. Again, key research findings indicate that when teachers 'shift their paradigm' (Scott, 2015) and become expert facilitators, they are able to use learning conversations, questioning techniques and 'double-loop learning' strategies (Hase & Kenyon, 2015) to help students become 'highly skilled, advanced learner[s]' (Scott, 2015).

The practice of heutagogy encourages teachers to be 'liberatory' (Lalendle & Msila, 2020), facilitating classes that prioritise 'democracy, cognitive justice, social justice, and classes that challenge the status quo' (Lalendle & Msila, 2020). Engagement is a complex problem that heutagogy alone cannot solve but a self-directed learning programme allows students to embrace interests, discover their individual talents and express their creativity. Heutagogy offers a 'new approach to education designed to prepare young people for global uncertainty, accelerating change and unprecedented complexity' (Gidley, 2017), which is vital if educators are to prepare their students for life in a 21st-century world.



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Executive Summary C6P

Blogging for Engagement

Wendy Sutherland

The aim of this project was to enhance student engagement through a constructivist lens, creating personalised learning while integrating digital technologies.

For a vast majority of students, the school can be a place that stifles their creativity. It can impede their choices over what and how they learn. The effect of this can lead to a lack of motivation and disengagement. There are strategies teachers and leaders can employ to counteract this lack of motivation in students, for example, using effect sizes (Hattie, 2011) however, innovation in education is needed to work within these boundaries and considers education from the point of view of the student. Making the learning all about the student and less about the system itself is one way to create an environment where students are given back control (Wright, 2013). Relinquishing control of lesson content and changing pedagogies (Scott, 2015) to suit more contemporary approaches has the potential to increase success rates while at school. Students of today are motivated, connected, interested, engaged and creative when it comes to other facets of their lives, such as using digital technologies and social media (Rabella, 2018). Capitalising on this is a must if educators are wanting to tap into these motivations and bring them into the school setting to engage students in their learning.

My goal was to find a way to deliver a curriculum that is motivating, collaborative, interactive and engaging for 21st Century learners. This project was based on the learning theory of constructivism (Piaget, 1954), which incorporates learning through interactions, experiences and active participation. My rationalisation was to marry constructivism with using contemporary resources, in this case, digital technologies, to support knowledge construction (Nanjappa & Grant, 2003). The use of the social media application Blogger supports students in being constantly active. Writing blog posts and commenting on the posts of others allows collaboration and for the student to work at their own pace through their own motivations. Students are able to find connections for themselves or be assisted and directed by others. Students are able to problem-solve and record their findings. Blogs act as a journal of learning as well as evidence of work and achievements.

Initial sessions with a group of year 7-13 students focussed on learning the purpose of using blogs, how they can be used to record learning and other affordances, such as how to be creative and innovative. Digital citizenship was encouraged throughout with a focus on internet safety, creating a positive digital footprint and referencing sources. The students learned how to create posts, upload images, videos, recordings, and photos and how to track posts. A few sessions were dedicated to commenting on the work of others, especially when adding value to their posts, which facilitates the ability to work collaboratively. Researching further ideas and adding them to the comments section for others to read, broadens original thinking taking them in a different direction.

All students enjoyed using their own personal blogs for recording their learning. They became proficient at creating a new blog post for each lesson they attended, recording the keywords or ideas of that lesson. They could upload websites teachers had used to summarise different parts of the



lesson, take photos of any notes written on the whiteboard and in some cases were able to record the lesson and upload it to their post. They were able to conduct research, and add videos, images and other related content. Once their post was published, students were able to read through the contents, adding comments, suggestions and information they too had found. They were able to hold insightful conversations, and discussions and also support those who were absent from school, so they could catch up with the work missed. Blogs were used to enhance and extend thinking and learning as well as sharing and working collaboratively with others.

Should this way of working become school-wide with all students blogging their lessons, the implications could be far-reaching. Further benefits could include teachers no longer needing to be knowledge holders, but rather learning facilitators, freeing them up to work with individuals and groups rather than whole-class teaching. Learning will become more heutagogical (Halupa, 2015) which is self-directed, metacognitive and student-centred, especially if blogs are shared between all students and the expectation is on knowledge construction.

Teaching and learning needs to support new ways in which knowledge is created, refined and shared. It moves beyond instructing and testing towards supporting learners on a journey to capacity rather than competency. It identifies theoretical constructs to guide technology learning based on social constructivist theories of learning and heutagogy. Understanding the *why* in the need to change what we currently do has made this journey of discovery more important for me. It has highlighted the need for greater urgency and is crucial if we want our students to engage and succeed.

For this to happen, leadership plays a key role. Leaders of today need to be agile (Anderson, 2011) in their thinking and in their ability to guide the work of others in the right direction. This means they need to be knowledgeable themselves about how to engage students in a contemporary context. They also need to be able to maintain positive relationships with all stakeholders, recognising the need to market new initiatives or behaviours to the different adopter groups (Rogers, 1962). It is especially essential to recognise innovators and early adopters, being the people within an institution who are the pioneers, so they are able to share their innovations and influence others with their ideas. Effective leadership is about recognising these innovators and growing their capacity.

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Executive Summary C6P

Place-Based Education Integrating the Key Competencies and School Values to Change a Historical School Culture of Bullying

Janine Tuta'i

*I never teach my pupils, I only provide the conditions in which they can learn.
Education is what remains when one has forgotten what one has learned at school.*
-Albert Einstein-

The purpose of the project was to engage children in their learning to improve their behaviour. The project goals were:

- To increase students' awareness and understanding of Student Agency and encouraging learners to take ownership in their learning journey.
- To encourage and promote students to interact with their peers and others positively.
- To provide opportunities for learners to make connections through their learning to their lives beyond the classroom.
- To promote, encourage and model effective collaboration practice in action for all stakeholders.

The project was implemented in a small, isolated, rural school in the Hokianga Harbour upper reaches in a mixed-level team junior classroom for Years 1-4. The classroom's cultural makeup was 86% Māori, with seven project participants, four girls and three boys.

The methodology adopted for the project was an action research approach. Action research is a process of planning, acting, observing and reflecting intently, methodically, and thoroughly, driven by a problem-solving intention (Cohen, Manion, & Morrison, 2018). Qualitative data was gathered using field notes and student-produced work, photographs, and discussion.

The Place-Based Education (PBE) concept is about connecting to your community, noticing and learning continuously about what is happening in your backyard. Utilising the environment as a tool for learning makes learning relevant and real for the learner. It allows children the opportunity of understanding how and where they belong in the scope of things and how they could positively contribute to making a change or initiate possible community projects—at the same time, allowing students the opportunity of making links to the broader world (Edutopia, 2015).

Alongside the PBE lessons, independent classes of the different components of the key competencies were being taught. Although the children were used to the concepts of managing self, participating and contributing, thinking, relating to others, and using language, symbols, and texts, no



explicit teachings or connections to the key competencies had been communicated previously to the students.

The collection of qualitative evidence through observations and discussion was instrumental towards informing future lesson plans. While these remarks were of the students' overall learning experience and interactions during lessons, analysing the data was explicitly related to the project goals.

Three key findings from this project suggest several understandings and suggestions for future practice. Firstly, the development of student agency mindfulness and the capacity to display these characteristics are integral for students to prepare for learning and active participation and contribution beyond education institutional constraints. Secondly, if the teaching pedagogy is well-suited to the students, then behavioral issues will not be a concern. The consequence of this result is to continue with PBE and support the teaching staff to make shifts in their teaching approaches to benefit our 21st Century learners. All with an emphasis for teachers on the importance of 'know me before you teach me.' Thirdly, place-based learning provides engaging contexts for learners to develop their understanding of the key competencies and 21st-century skills. It is integral that planning for place-based learning integrates provision for these competencies and skills during learning experiences.

In conclusion and summation of the project, ensure that it is a collaborative effort when shifts and changes are made within organisations. The obstacles are less, sustaining the plan is increased, the contributing and participating parties are more significant, and the project becomes more meaningful. Acts and practice are essential; however, these performances without the support of research or literature carry no substance.

As a final point, allow children to lead the way to their learning journey, permit them to have a voice and determine the learning experiences. As an educational practitioner, it is our prerogative to make sure that the students of today are equipped with the skills and attributes to participate in the world today wholly and into the future.

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Executive Summary C6P

Raising Engagement in Music Through Digital Peer Tutoring

Jason Coogan

Despite a plethora of research demonstrating a high correlation between academic success and students involved in arts programs (Hallam, 2010), resourcing issues and perceptions of the greater importance of other subjects have led to some music programs become marginalised and undervalued (Rohan, 2004). Most secondary schools require students to choose music as a subject rather than placing it as one experienced by all. Consequently, by year 9, access to music becomes more restricted and is sometimes limited to those who have already attained a certain amount of proficiency. Along with the perceived higher importance of other subjects, many students miss out on the multiple benefits of music instruction. This means that years 7 & 8 become critical in influencing further involvement in music programs. The aim of this study was to raise engagement levels in a year 7 & 8 music program.

The study utilised peer tutoring, and disruptive digital technologies, and reflected modern ideas of culturally responsive practice and personalised learning. Students were involved in creating tutorial videos for peers to learn from. This approach was chosen for its proven potential to improve student motivation, self-confidence, and enjoyment of learning (Topping, 2005). Similarly, student creation of their own educational content can improve learning, raise engagement, and has the bonus of resulting in products of lasting value (Sener, 2007). The videos were uploaded onto a Google Classroom site effectively creating a digital space enabling the same types of interactions afforded by social media. We aimed to provide students with more impactful and relevant learning experiences by incorporating typical online practices into the classroom (Lee, Mcloughlin & Chan, 2008).

The study aligned with contemporary ideas found within culturally responsive teaching practice by incorporating the cultural experiences, characteristics, and perspectives of students into the learning. Underpinning this approach is the belief that by situating the learning within the frames of reference, and personal experiences of the learners, teachers can raise student interest, and create more meaningful and easily digested learning experiences (Gay, 2000).

Learning environments at the forefront of personalisation develop an ethos of self-help and self-evaluation, are highly collaborative, and engaged in networks that are essential for personalisation (Leadbeater, 2005). Academics highlight increased levels of student motivation (Jones, Scanlon & Gaved, 2013), learner empowerment, and improved attitudes towards learning through a personalised approach (Higgins, Sebba, Robinson, & Mackrill, 2008). Through the digital peer learning network, this study attempted to create the type of learning environment that Leadbeater (2005) describes, and ultimately lead to greater levels of student engagement.

Data collected at the conclusion of the study's first iteration showed high levels of cognitive, affective, and behavioural engagement. Despite data from focus group interviews indicating that students found peer videos more engaging, motivating, and easier to learn from, one contradictory



finding from a questionnaire showed no clear preference for learning from peer tutorial videos over those found on Youtube. This led to the second iteration of the study focusing on whether a second cohort of students, learning from both sources, but not required to create videos, would prefer the peer made resource. Data collected from the second iteration showed a clear preference for Youtube tutorials.

The difference in engagement between the two cohorts can be attributed to the fact that the first cohort of students involved in creating and sharing tutorial videos clearly benefited from the experience in ways the second cohort did not. The first cohort were experiencing what Evans & Moore (2013) describe as improved rapport by creating a community of tutors and tutees. They were collaboratively engaging in knowledge-building to produce shared artefacts. They had, in fact, become a community of practice. Students in the first group experienced increased self-efficacy. Many described the way that seeing peers from their own class achieve made them believe that they could replicate the same skillset. The act of video creation had multiple benefits in that students experienced deep learning that encouraged critical thinking, problem-solving, and effective communication, and developed their creativity (Keane & Loch, 2017).

The clear engagement of the first cohort of students in the social, cooperative, and cognitive aspects of the study has led to music teachers at the school planning to continually build on and develop the digital peer learning network over the course of 2021. The growing network of student videos is viewed as something of lasting value. An understanding has been gained of the importance of allowing students to contribute and collaborate fully towards the shared learning of the group in order for them to fully engage with and benefit from such learning experiences. The reality that some students may, at times prefer learning from the more technically proficient Youtube tutorials has not overshadowed the project's positive impacts on the music department at the school. Rather, it provides students with more choice in what, how, and when to learn in a way that is consistent with the philosophy behind personalised learning that has underpinned this change initiative.

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Executive Summary C6P

Project Based Learning and how the Key Competencies and Digital Tools can Enable this

Meri August

The purpose of this Masters of Contemporary Education project was to investigate how the key competencies and digital tools can enable project-based learning. With the effects of globalization seen in all aspects of life, economically, socially, politically, and culturally, the New Zealand education system has had to look at how teaching and learning were occurring within New Zealand schools. (Eaton, 2010) discusses the seven global trends in education with the use and integration of technology, mobile technology, asset-based approaches to evaluation, global approaches to learning, global mobility, and borderless education. For New Zealand educators that means looking at moving away from traditional pedagogical approaches to teaching and learning and focusing on a more andragogical and heutagogical approach whereby the teacher takes on a facilitator or coach role. There is a move towards personalizing learning for students, whereby students set their learning pathways and programmes designed are culturally responsive as New Zealand has the third-highest proportion of its population that was born overseas. (OECD, 2017, as cited in NZ Education Review Office, 2018).

With Maori achievement continuing to feature as a national priority for the government, there has been much research done to find ways to raise the achievement of Maori students. After a decade of research done by the Education Review Office around this, findings found that many educators had not done enough to raise the achievement of the Maori students within their schools (NZ Education Review Office, 2010).

The goals that I set out to achieve during the project were as follows:

- Learner agency: Students would become less reliant on the teacher through designing their learning pathway and teachers would be learning more about their students.
- Student participation and engagement.
- Co-construction of learning: Teachers and students will take an active part in designing their learning pathways.
- Develop digital literacy.

For this project, I used an Action Research approach. Action Research seemed to be the most appropriate tool to use as it was more suited for educational purposes. It is a systematic approach that allows educators the opportunity to understand what is happening in the classroom through the collection of data and then use this evidence to make judgments about what is going on. Although the approach is systematic it is also a dynamic process that can allow the researcher or educator the

opportunity to change what is being collected as a result of what is happening in the classroom. (Johnson, 2012).

Analysis of the data gathered can be summarised into four key findings:

LEARNER AGENCY:

- Students need to know what learner agency looks like in their world using authentic contexts and areas that interest them.
- Students need choice based on their interests, skills, cultural backgrounds/world views, and their learning needs.
- Students need to have a voice when co-constructing goals.
- Need to have developed a relational trust with their teacher.
- Students needed an opportunity to articulate their needs and develop personal goals and through discussions develop a personalised plan and strategies for how to achieve this.

STUDENT PARTICIPATION AND ENGAGEMENT:

- Students need to have a student voice if teachers wish them to buy into new learning.
- Students need regular learning conversation times so that students can have a voice in developing their learning pathway and an opportunity to receive and give regular feedback on their learning.

CO-CONSTRUCTION OF LEARNING GOALS:

- There needs to be some shared learning, moderation and discussion around what students need to focus on.
- Student voice is crucial when developing learning goals.
- Students were more willing to engage in learning when they were actively involved in the process.

DIGITAL TOOLS:

- There needs to be time given to students to explore the capabilities of new technologies through front loading and practising these skills before the new learning takes place. (Rollins, 2014)
- That tuakana-teina, teina-tuakana relationships interchanged among students as they became experts in the use of new digital tools.
- Students sought the advice of other students who were experts in the field before seeking support from the teacher.
- Students were willing to share what they had learned when they believed that they were successful.

21st-century contemporary educational practices are concerned with preparing our students for an uncertain future and workforce. As educators we can no longer use a traditional pedagogical approach to teaching, whereby the teacher stands at the front of the classroom, decides what to learn, when it is to be learned, and how the learning will take place. This approach is not meeting the challenges that students will face. Through the use of contemporary practices such as project-based learning, the development of the key competencies which are found in our New Zealand curriculum, culturally responsive practices, personalised learning and the development of digital fluency students are more likely to be successful within our education system as well as our future workforce. There also needs to be a focus on the quality of programmes that we are delivering, encouraging participation, the personalisation of learning programmes, collaborating and communication, developing creativity and innovation, real-world authentic problems, the development of positive relations, and learning outside the classroom. (Scott C., 2015)

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Executive Summary C6P

Using e-portfolios to increase learner engagement in Year 10

Science

Toby Swallow

The objective of this project was to use e-portfolios to establish whether this would increase engagement in Year 10 Science pupils. Other deliverables from the project were to increase use of digital devices within the classroom, improve staff and pupil digital fluency and to improve the classroom atmosphere for learners and teachers. The project used an action research methodology and generated a mix of quantitative data from a questionnaire administered at the beginning and end of the project, and qualitative data from researcher observations and interviews with staff.

The project utilised e-portfolios, as these offer multi-modality for how students present work, and it was felt that this would be more engaging for pupils than just text-based work as it affords more learner agency. A key feature of e-portfolios is an active reflection on the task, and again it was felt that this would increase engagement as this extra layer of processing allows pupils to relate what they are doing in the classroom to their world and this should make the work more relevant.

A literature review was undertaken, and it became apparent that there was no available research on using e-portfolios with high school-aged pupils as the majority of available research on e-portfolios featured tertiary and post-graduate students. The consensus of the papers and articles analysed was that e-portfolios offer a powerful educational tool due to the multi-modality and the reflection process and that, as such, their use with Year 10 pupils was worth pursuing. It was also necessary to research some ideas around defining and measuring engagement and teaching reflection to pupils. It was strongly suggested by one source that it was necessary to clearly state which definition of 'engagement' the study was using, as there is a wide range of understanding around this term (Christenson et al., 2012). Accordingly, the following terms and definitions were used: cognitive engagement occurs with pupils who are interested in the topic or subject; behavioural engagement is around compliance such as completing work and participating in lessons; and finally, social engagement is a measure of participation in wider school activities. These definitions are based on the author's reading about engagement, and on the author's heuristic models from the experience of classroom practice. There was also a variety of literature on teaching reflection, but this was mostly aimed at tertiary students, rather than high school students. Accordingly, a simplified catechism was synthesised to encourage and develop reflection skills. This was designed to be a simple, five-step process in order to be accessible to all the pupils involved in the project. This catechism was based on recounting (say what happened), reviewing (how well did it go?), reason (why did you do this activity), relating (making links to ideas outside the classroom) and re-invent (what could you do differently?).



Two Year 10 classes were selected and a questionnaire was administered to try and find out how engaged they were in Science, and what sort of engagement this was.

The questionnaire was adapted from the Student Engagement in Schools Questionnaire (SESQ) (Hart et al., 2014), and was adapted in a similar way to a digital learning experience engagement study (Azrin et al., 2020). An iteration of the project was run for around six weeks with a mix of teaching digital and 21st Century skills on the topic of electricity. Pupils completed several tasks within this and posted artifacts to their e-portfolios and were encouraged to reflect on the activities. During this time the classes were team-taught by both myself and the class teacher. In the second iteration of the project, the classes continued to use e-portfolios, but this was led by only the class teachers. During the team-teaching phase, a logbook was kept and observations were recorded. Informal conversations also took place with both pupils and teachers as part of this. After the initial six weeks, a more formal interview with both teachers took place and a short while after, the questionnaire was re-administered to the pupils.

Analysing the quantitative data from the questionnaires was complicated by a low response rate, however, it was found that there was no significant difference between results taken before the project started and the results generated after the first iteration of the project was complete. As there were only seven valid responses from the post-project questionnaire, it facilitated a case approach, which determined that during the project pupils who were identified as cognitively engaged seemed to benefit from e-portfolio-based work, but pupils who were behaviourally engaged but not necessarily cognitively engaged struggled with using e-portfolios. It was felt that the open-ended nature of the task and the uncertainty of the answers were off-putting to highly behaviourally engaged students.

The interviews and observations made indicated strongly that over the course of the project behaviour and engagement improved in the classroom, for example, device compliance improved and fewer pupils were sent out to the referral room. However, it is felt that there are other factors that may have influenced this improvement that these factors make it difficult to say with any certainty that e-portfolios have improved engagement. In terms of the other deliverables, the depth and breadth of digital technology utilisation increased in both classes and there was a purposeful working atmosphere in both classes more frequently. Both teachers involved stated that they would continue to use e-portfolios and felt more comfortable using digital technologies in lessons.

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