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Using digital feedback in support of middle school students' persuasive writing skills: A Bernsteinian perspective

A thesis

submitted in partial fulfilment of the requirements for the degree

of

Doctor of Education

at

The University of Waikato

by

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Abstract

The provision of feedback is one of the most important changes a teacher can implement to enhance learning. Digital technology can support teachers' feedback to students by creating new and different spaces for conversations around learning. In this study I combined feedback and digital technology to create a different space for teachers and students to learn together about persuasive writing. My interest in persuasive writing arose during my reading of Bernstein's work. Bernstein argues there are two types of codes, or discourses: restricted and elaborated codes. Students from more advantaged backgrounds can switch between these discourses. Schools operate in the elaborated code, which can be challenging to fully comprehend, especially for students from less advantaged milieu. Bernstein offers that the knowledge to be acquired at school is or needs to be recontextualised by teachers so all students can access this academic knowledge.

Persuasive writing is a difficult genre to master as it is complex and presents codes which can be challenging for students to comprehend. However, the literature suggests that it allows students to become democratically informed and active citizens. It is for this reason that this genre of writing was chosen as the focus of this study.

The investigation I undertook aimed to answer the following question: How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive genre?

To answer this question, a design-based intervention was conducted in a middle school with two participating teachers and their classes, of which 10 students were chosen by the teachers to be the target students. These students formed three groups: one group of three students was working above the national standard in writing, a group of three students was working at the standard and another group of four students was working below the standard. The study, conducted within the critical paradigm, sought to transform the educational reality for students working below the standard in writing. Students were asked to produce two pieces of persuasive writing and were provided with written and audio-based feedback on Google Docs. The teachers co-created rubrics regarding the persuasive writing genre and co-planned lessons. Data were collected in the form of semi-structured interviews, surveys, class observations, documents such as teachers' mark books and students' work samples.

The findings show when effective feedback is provided to students, their writing attainment is more likely to increase. To be effective, feedback needs to be timely, personalised, and understood by the students. The four target students whose writing was below the standard benefited, and some of them preferred, from being provided with audio-based feedback. However, students whose writing attainment was already high, preferred receiving written-based feedback due to ease in reading and comprehending this feedback. Regardless of their literacy level, the target students preferred being provided feedback on Google Docs as it allowed timely and personalised feedback. The teachers and their students not only agreed on the efficacy of providing feedback on Google Docs, but they also shared the view that producing written pieces on Google Docs allowed students to produce more, better quality writing and it permitted students to redraft their work more easily.

This study provides an example of how a Bernsteinian perspective can be applied to provide a new and useful understanding of the role of feedback in supporting students to enhance their persuasive writing genre. Teachers in the study were able to use feedback to recontextualise the School's discourse and knowledge and create a bridge to the codes students comprehended. Furthermore, the findings show that for some students whose literacy level was below the standard audio-based feedback can be particularly effective as a recontextualisation tool that helps students in comprehending the School's discourse by making the meaning of the feedback comments more explicit for them. On the other hand, students whose literacy level was above the standard commented they preferred written feedback. These two contrasting findings can be explained by student understandings of the codes of the written feedback. A surprising finding was that although the teachers had co-created rubrics regarding persuasive writing and their students commented they would have liked to use them as they could have served as goals to aim for in their writing, the teachers did not use the rubrics. Drawing on Bernstein it is possible that these teachers found themselves in the field of production of knowledge, a field within which they did not feel comfortable operating, and so they reverted to the field of reproduction of knowledge, and used the school's e-asTTle rubric, with which they felt more comfortable.

The implications for teachers teaching writing are that they need to be aware of the codes their students comprehend and consider the use of recontextualisation tools, such as audio-based feedback, to modify the School's discourse so all students can access the School's knowledge. Professional development providers and policy makers could consider providing teachers with support and adequate training to thoroughly comprehend the process of provision of feedback.

Acknowledgements

This doctoral journey required a huge amount of help and beliefs from a lot of people.

First and foremost, I would like to thank my extraordinary supervisors, Professor Bronwen Cowie and Dr Elaine Khoo. Their support since day one has been invaluable. It is difficult for me to put on paper how much moral assistance they provided me with. I will always remember receiving emails late at night from Bronwen sharing with me readings she thought might be of interest. I would have quit very early on if it had not been for Elaine's kindness and words of encouragement. Speaking with other doctoral students, I am fully aware of the luck I had to be supervised by such wonderful, intelligent, patient and supportive ladies.

Of course, I would like to thank the participants who agreed to take part in this investigation. Without them, this study would not have taken place and I would still be asking myself the questions we have managed to answer together.

I would like to thank my dear friend Dawn who was with me during the whole time, learning alongside me and proofreading my papers in a record time. I have learnt so much from you and I will always be grateful. I cannot stress enough how unworthy of your friendship I am.

I also would like to thank Dr Constanza Tolosa who believed in me and offered me support during and after my Masters.

Finally, I would like to thank my family. My daughter, Rhea, was so patient during these years I was stuck in my office trying to write. As for my extraordinary husband, David, none of this would have been possible without him. Not only did he finance my insane idea to restart my studies, but he also took over the chores I was not able to take care of due to my selfish commitments. Since 2016, David became a dad, husband, worker, cleaner, cook and full-time carer of our household so I could answer this question I had inside me. David, you are my everything.

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Chapter One Introduction

This chapter introduces my study and presents my interest in supporting students who have limited success in schools. In the study I pursued answers to the following research question: How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive writing genre?

This chapter is divided into six sections. First, I introduce my interest in the topic, then I present the context and scope of the study, followed by its relevance and the study design. Finally, I outline the structure of the thesis.

To ease reading, when the noun student needs to be replaced by a pronoun, the feminine pronoun *she* is adopted. When I refer to the School as an educational institution, the word is capitalised. However, when I refer to a particular school, the word starts with a lower case. The Bernsteinian concepts Classification and Framing also start with a capital letter to differentiate with their homonym. In order to differentiate between the different meanings of the term, Language will be capitalised throughout this thesis when it links to Bernstein's notion that Schools have a particular discourse or Language. Language with lower case -language-is used as the result of talking.

1.1 My interest in the topic

Being a teacher for more than 15 years, I have witnessed a lot of students experiencing success in schools while others have not. Despite numerous initiatives run by schools, I felt that some students did not seem to possess the right tools to flourish in class nor were given the right opportunity to acquire them. Furthermore, on several occasions in the teachers' staffroom, I heard deficit discourses from teachers regarding students which did not resonate well with me.

The first instance I heard deficit discourse is related to the subject I teach, French, and which particular students supposedly 'could' or 'could not' learn a language depending on their academic abilities. On one occasion, in the staffroom, the name of a boy was mentioned. When I asked for his family name, I was told I would not know him because he was 'not clever enough' to do French. This instance was the first time I started to question who had access to particular kinds of knowledge and who was seen as worthy

enough to have access to it. The second occasion occurred while I was part of the school's strategic change leadership team which had the objective of implementing the Kia Eke Panuku initiative (Waikato, Auckland, & Awanuiārangi, 2013-2016). This initiative aims to support teachers in enhancing their practice to be more culturally responsive to allow Māori students to succeed as Māori. Since I was asked to be part of the strategic change leadership team because of my role as an eLearning facilitator within the school, I asked on different occasions during meetings if and in what ways digital technology could be used to increase Māori achievement. I was told repeatedly that digital technology could not assist Māori students in increasing their learning, although reasoning as to why it could not was never provided. According to my experience in my classes and my reading (Bolstad et al., 2012; J. Fletcher & Nicholas, 2018; Galla, 2016; Warschauer, 2011), digital technology could support the learning of my Pakeha students, and so I wondered why could it not support the learning of our Māori students?

Although these two instances seem insignificant, they illustrate the starting point of my inquiry regarding who has access to knowledge and who has access to technology, and what the implications of this might be. They prompted me to question why some students have access to powerful knowledge (Young, 2008), and why others do not. This questioning led me to take up a Master of Professional Studies.

During my limited investigation, it came to my attention that teachers seemed, unconsciously, to use digital tools to help students whose literacy level was already high. In other words, teachers saw the potential of digital tools as a way to enhance their students' understanding but thought these tools could only support their already more able students. At the same time, I was introduced to the work of Basil Bernstein. When reading his work, I felt that he identified clearly how schools (and by extension teachers) reproduce social inequities. Applying his theoretical framework to a bigger investigation seemed to offer a way to find solutions to support students who were working below the standard.

Applying what I had learned from my Masters degree, I started a Doctorate in Education and conducted a design-based research in a middle school regarding the use of an online collaborative writing platform to create feedback as dialogue when learning the persuasive writing genre. I decided to delve into feedback because I was already aware feedback was said to be the most important change a teacher could implement in her

teaching (Hattie & Yates, 2013). Digital technology was a second theme I was concerned with, as I thought it might give students and teachers the opportunity to create another space other than the classroom to learn together. My interest in persuasive writing came during my readings of Bernstein. Although persuasive writing is a difficult genre to master as it is complex and presents codes which may be challenging for students to comprehend, it can provide a means for students to become democratically informed and active citizens. It is for this reason that this genre of writing has been chosen as the focus of this study.

1.2 Effective feedback

Effective feedback aims to inform the learner of strategies to use to improve her work or to support her in crossing the gap between what is already known and what needs to be (Knight, 2001; Shute, 2008). Ramaprasad (1983) specifies that comments received by students can be qualified as feedback only if the student uses the feedback to modify the task. Hattie (2012) states that for feedback to be effective it needs to answer the following questions: "Where I am going?"; "How am I going?"; and "Where to next?". Further to answer these three questions, to be effective feedback needs to be descriptive, which means not judgemental (Tunstall & Gipps, 1996b). Feedback also has to be timely (Erickson, 2007; Irons, 2008; Moreno, 2004), or when the learning task is being completed, a continuous loop (Brookhart, 2008; Hattie, 2012; Ruiz-Primo, 2011), personalised (Baldwin, 2016; Boud, Lawson, & Thompson, 2015), explicit and set against criteria (Carless & Boud, 2018; Weaver, 2006), and finally dialogic (Adie & Willis, 2016; Boud, 2015).

However, effective feedback does not always happen due to teachers' lack of knowledge in assisting students to reach the next step in their learning (Heritage, Kim, Vendlinski, & Herman, 2009), and the time it takes for teachers to provide feedback (Knauf, 2016). Moreover, students can ignore the feedback they have received because of the illegibility of teachers' handwriting (Carless, 2006), the language being used is too difficult to comprehend (Crook et al., 2012), or the feedback has been provided too late (McCarthy, 2015).

Digital technology has the potential to allow the teacher to create different modes of feedback such as written, audio and video very easily. Indeed, the use of digital technology can assist the teacher in providing efficient feedback, for instance, providing

audio recorded feedback takes less time than written comments (Cann, 2014; Carless, 2006; Hatziapostolou & Paraskakis, 2010; G. Johnson & Cooke, 2016; Lunt & Curran, 2010). Digital technology also allows students to store provided feedback more easily and to revisit that feedback at convenient times when needed (Macgregor, Spiers, & Taylor, 2011; McCarthy, 2015). Moreover, students have even suggested that it seems the teacher *cares* more about their work when they give audio rather than written feedback (Huang, 2000; Ice & Curtis, 2007; McCullagh, 2011), and that they can understand audio feedback better because it is more specific (Harper, 2009). Finally, digital technology has the potential to assist students, peers and teachers to interact to generate feedback within a dialogic space where all parties can participate and grow together (Ruiz-Primo, 2011). In this dialogic space, students can make sense of the feedback. It has the potential to enable a shift in power as teachers and students co-construct meaning (Gravett & Petersen, 2002). Furthermore, it not only gives students the opportunity to justify their ideas but also teachers to interact with students' thinking as well as their own instruction (Black & Wiliam, 1998a; Erickson, 2007).

1.3 Bernsteinian perspective on social power in schools

As stated earlier, reading Bernstein's work was a real revelation for me as I felt he depicted a situation often lived by students who were ill-equipped to experience success in schools.

This section draws from Bernstein's theory to describe how schools reproduce social inequities. In other words, students from ill-served backgrounds are unlikely to see their disadvantages attenuated whereas students from a more advantaged status are likely to see their privileges sustained (see Chapter Two for clarification of the terms disadvantaged and disadvantaged background). I discuss ideas to do with social and cultural capital, then class and Language, and then how socio-power relations are reinforced in schools.

1.3.1 Students' social and cultural capital

The concepts of social and cultural capital originated with Bourdieu (2011). Bourdieu (2011) and Bernstein (2000) note that not all students have the same economic wealth or capital (Hay & Penney, 2013), nor do they have the same social and cultural capitals to bring to school. For Bourdieu, social capital refers to the social connections people have, whereas cultural capital concerns how someone looks and behaves, their school

qualifications and or what kinds of culturally rich objects they own (Hay & Penney, 2013). In education, the problem of different social and cultural capitals does not directly lie in the quality of students' capital but more in how schools address any differences and gaps (Apple & Wexler, 1978). There is evidence that advantaged students see their capital increase, while disadvantaged students are less likely to witness any increase in their capitals since teachers are most likely to assist students who share the same capitals as them (Jæger, 2009; Jæger & Breen, 2016; Panofsky, 2003). I was interested to see if an intervention could change this situation.

1.3.2 Language, codes and Pedagogic Discourse

For this study, Bernstein's ideas to do with Language, codes and Pedagogic Discourse in allowing schools to reproduce social inequities are used to inform the research intervention, data collection and analysis. Language holds a place of great importance for Bourdieu, and even more so for Bernstein. Bernstein (2000) put forward the idea that the form of Language used by students (as portrayed by different codes) can offer explanations for their comparative performance at school. In order to differentiate between the different meanings of the term, Language will be capitalised throughout this thesis when it links to Bernstein's notion that Schools have a particular discourse or Language. That is, Language here refers to the "work of a collective intelligence, which is both internal to each individual and collective" (Phillips & Tan, 2005, p. 1). Language where a lower case is used-language-is used as the result of talking.

According to Bernstein, there are two types of codes, or systems of Language. The *elaborated code* and the *restricted code*. Codes "may be regarded as an attempt to write what may perhaps be called pedagogic grammars of specialised habituses and the forms of their transmission which attempt to regulate their acquisition" (Bernstein, 1990, p. 3) Although all individuals have access to the restricted code as it is used in our everyday's life, or personal contexts, individuals from advantaged backgrounds are more likely to have access to and switch between both codes. The elaborated code is more formal and more linguistically complex, whereas the restricted code is less formal. Schools transmit the knowledge students need to acquire using the elaborated code, which could be one the reasons why students from disadvantaged backgrounds experience difficulties at school (Bernstein, 2000). Students from lower socio-economic status (SES) are more likely to arrive at school without mastering or even knowing the School Language (Hoadley, 2008). This may then prevent them from understanding the implicit discourse

used by teachers and the curriculum because the teacher's discourse is only implicit to students from disadvantaged backgrounds as teachers and more advantaged students already understand the rules of the School's discourse (Jæger, 2009). By aiming to make the School's discourse more explicit to disadvantaged students during a dialogic interaction, the teacher may be able to create a bridge supporting the learner to cross that gap between the home and the School discourse.

Bernstein (2000) argues that socio-inequities are reproduced within Pedagogic Discourse that teachers use. He defines Pedagogic Discourse as a "rule which embeds two discourses; a discourse of skills of various kinds and their relations to each other, and a discourse of social order" (Bernstein, 2000, pp. 31-32). He identified two Pedagogic Discourses: The instructional discourse and the regulative discourse. The *instructional discourse* refers to the specialised skills whereas the *regulative discourse* refers to the moral discourse which creates relations and identities. Instructional discourse is concerned with rules for selecting and organising of pedagogic content, such as sequencing and pacing, and as for the regulative discourse it is about the way it is taught. The instructional discourse is embedded in the regulative discourse which is the dominant discourse. Where both discourses play a significant role in enabling some groups, such as teachers, to affirm their power (Bernstein & Solomon, 1999; Hay & Penney, 2013; Martin & Rose, 2007; Singh, 2002).

1.3.3 Social relations of power

Bernstein (1999) addresses matters to do with access to powerful knowledge. For Bernstein, powerful knowledge is distinct from everyday knowledge and is generally context-independent (Young, 2008). He explores this access using the concepts of Classification and Framing, and vertical and horizontal discourses.

According to Bernstein (2000), Classification encompasses the boundaries experienced by individuals, for instance between School knowledge and home knowledge (Bernstein, 2000). Classification can be qualified as strong when there is a strong demarcation between School knowledge and home knowledge, and qualified as weak when this demarcation is less pronounced. Students from ill-served backgrounds are more likely to experience strong Classification between school and home knowledge (Morais, 2002). Although teachers might have limited choice on what to teach, they have more freedom in *how* to teach and therefore, teachers can weaken Classification (Bernstein & Solomon, 1999; Hay & Penney, 2013). Framing relates to lesson pacing, evaluation criteria and

content sequencing within Pedagogic Discourse (Willis, Adie, & Klenowski, 2013). When the Framing is strong the teacher seems to be more in control, whereas when the Framing is weak the student may have more choice in how to learn (Willis et al., 2013).

Bernstein (1999) suggests there are two types of knowledge, which he calls vertical and horizontal discourses. Horizontal discourse refers to everyday knowledge, which is context dependent so meanings cannot readily be transferred to other realms (Hoadley & Muller, 2010; Wheelahan, 2009). Vertical discourse refers to "symbolic knowledge" that operates across contexts (H. Thomas, 2017) and is systematically organised (Hoadley & Muller, 2010). For Bernstein and others, such as H. Thomas (2017) and Young (2010), giving the opportunity to students to learn in the vertical discourse is important because this gives them access to powerful knowledge. As noted above, it is only with explicit support that students from ill-served backgrounds will be likely to access powerful knowledge.

To summarise, through the manipulation of sets of rules, such as codes and Pedagogic Discourse, institutions like schools tend to reproduce socio-inequities. Indeed, advantaged students tend to see their social and cultural capital increased whereas students from ill-served backgrounds are less likely to comprehend those rules and may therefore be denied access to powerful knowledge. It is through the alteration of Framing and Classification that teachers may be able to support students who find school discourse challenging.

1.4 Focus of the study

To put it simply, the aim of my research was to investigate ways to narrow the achievement gap between the students who experience success and those who do not. Research indicates that one way to ensure this is to provide students with quality feedback (Hattie, 2012), however, providing feedback can be a daunting task for teachers (Erickson, 2007).

Due to the ubiquity of digital technology and the ease in using it, my intervention investigated if teachers were able to use digital technology to provide feedback, and if one specific mode of feedback, audio-based feedback, would support students who were working below the national standard in writing. The following research question guided my study:

How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive genre?

To pursue this question, I developed the following sub-questions focused on the use of digital technology in supporting teachers and learners:

- (i) How does teachers' understanding of quality feedback change over time?;
- (ii) How do students perceive, understand and act on written and audio teacher feedback?;
- (iii) To what extent does students' persuasive writing improve when they are given feedback as dialogue through digital technology?

The context of this research was the teaching and learning of the persuasive writing genre at the middle school level. I have chosen this particular context since writing is an area of concern (Parr, 2011) and it requires students to logically organise their ideas (Crowhurst, 1993; O'Neill, 2012). Furthermore, despite being demanding, writing is an important genre to master as it can empower students democratically. For instance, students may need later to influence their co-workers or convince politicians to adopt policies that are believed to be beneficial for them or their communities (Nippold, 2000). Crowhurst (1990) states "the literate, educated person is expected to be able to articulate a position on important matters so as to persuade colleagues, fellow citizens, governments and bureaucrats" (p. 349).

I hope that the research findings will benefit students, teachers and professional development providers by contributing knowledge regarding feedback, including the use of digital technology to provide this especially for middle school students who were working below the standard in writing.

1.5 Research design

This research sits comfortably in the critical paradigm since it aimed, through a design-based research intervention, to transform the educational reality for students working below the standard in writing in a way that empowers both teachers and students. A critical paradigm requires the use of methodology which will bring about change through an action or intervention (Cohen, Manion, & Morrison, 2000). Any such intervention should not be implemented *on* participants but *with* them to enable them to be empowered and emancipated (Scotland, 2012). In the thesis I employed a design-based research

(Cohen et al., 2000) because it not only aims to comprehend social issues but also to create changes: it seeks to bring about transformation through research to empower participants and their communities (Bradbury-Huang, 2010).

In this research, I worked in a middle school context with two teachers who were teaching persuasive writing. Convenience sampling (Gray, 2009) was adopted to identify two teachers based on my personal contacts. The two participating teachers agreed to collaborate with me and each other to co-construct understanding and strategies regarding the provision of feedback using an online writing platform in their respective classes. I asked the teachers to identify in each class up to three students they assessed to be "above the standard" in writing, three students working "at the standard" and "four below the standard". I anticipated that focusing on a range of students would increase the likelihood of witnessing if a shift in writing attainment was to occur due to my investigation. These students were the target students during the investigation.

The investigation was divided in four phases: baseline, first cycle of intervention, second cycle, and finally, overall evaluation.

1. Phase One: Baseline

The baseline phase aimed to obtain a clear picture of what was currently happening regarding teacher and student understanding and use of feedback, and digital technology proficiency.

The two participating teachers took part in an individual semi-structured interview. Teachers were asked to share their writing lesson plans throughout the study to help me understand the intended place, use and frequency of feedback in their lessons. I also collected their mark books during the entire length of the study to observe any shifts in students' grades.

2. Phase Two: First cycle of intervention

This phase commenced with an intervention workshop. This was a professional development workshop regarding feedback with a focus on the affordances of digital technology, particularly those that teachers had access to. During this workshop, the teachers and I:

 Co-constructed what counts as effective feedback and identified the affordances of different digital technologies. Decisions about which tools to use were explored, in this case Google Docs.

 Developed success criteria and rubrics for quality persuasive writing and quality feedback.

• Planned lessons together.

The workshop was followed by classroom observations.

All students completed a lesson exit survey (paper based) regarding their views of the feedback provided and their comments on what they acted on and why. Students' work samples were collected.

A post-intervention discussion was held with the two teachers during which initial findings were explored and reflected on. A summary of students' exit surveys were shared with them and used to inform planning for next steps.

3. Phase Three: Second cycle of intervention

Phase three was a repeat of Phase Two without the intervention workshop.

4. Phase Four: Overall evaluation

During this phase, teachers participated in a semi-structured interview to reflect on the research experience as a whole.

All students filled in an online survey regarding their views of the value of digitally provided feedback. An identified sample of 10 target students participated in a focus group interview regarding the integration of digital technology in the provision of feedback.

1.6 The structure of the thesis

The thesis is divided into six chapters. I summarise the content of each chapter below.

This chapter, Chapter One, introduces the background context and offers the rationale and motivation for the study. Chapter Two defines the key terms used in the study and scopes the key areas of literature that informed the study including that on effective feedback, and the role of digital technology in feedback. In the last sections of the chapter, I define the persuasive writing genre, describe its codes and explore Bernsteinian perspectives regarding equity and digital technology. Chapter Three describes the

research paradigm, the research design, the study participants, data collection and analytical methods, as well as ethical considerations. Chapter Four reports on each phase of the study intervention and the findings of the research. Chapter Five revisits the research questions and offers a detailed discussion of the findings. Chapter Six is a conclusion chapter where the key findings of the study are summarised, implications and limitations of the study are identified and suggestions are offered for further research.

Chapter Two Literature Review

This chapter reviews the literature related to how the use of an online collaborative writing platform to create feedback as dialogue might be employed to support diverse middle school students' learning of the persuasive writing genre. It is divided into six sections: 1) the nature of effective feedback, 2) how the gap in learning can be bridged, 3) practices and contexts for effective feedback, 4) digital feedback, 5) the persuasive writing genre and 6) a Bernsteinian perspective on equity and digital technology.

For this study the term disadvantaged or disadvantaged background is to be understood as "inequalities that we know to exist, and to the extent to which one is excluded from full participation" (Edwards, 2010, p. 43). In other words, if a student is said to be from disadvantaged background, it means that she might find it difficult to be heard and academically succeed at school as opposed to other students who would have been tacitly prepared to fully participate in school's life. A student may feel that she cannot fully participated in the school life if she lacks understanding of the School's discourse. Further on, this exclusion might be felt as exclusion in wider society. If a student has not been adequately prepared to become an active citizen, her participation in the wider society might be more difficult. To address this, as I suggest in section 1.4, the teaching of persuasive writing is one way to empower students democratically and support them in becoming informed and active citizens.

"Literate cultural capital" is another concept that is important in this research. This term has been coined by Tunmer and Nicholson (2010) and is defined by them as "a generic term referring to literacy-related knowledge and abilities at school entry that are an outgrowth of activities in the home environment that support early literacy development" (p. 420).

2.1 The nature of effective feedback

This section delimits what effective feedback encompasses.

In any realm of learning, such as school or home, learning takes the learner from what is already known to the next step of what she is capable of understanding and/or doing. In other words, the learning process intends to close the gap between what the learner already knows and what needs to or could be learned next (Sadler, 1989). One way this gap can be closed by the learner is with the help of a teacher or a more proficient person,

including a peer, who provides feedback. Feedback can come from summative or formative assessment. Summative assessment, as in "sum up" (from the Latin "summatio") sums up what a learner is able to do, and focuses usually on the product of learning (Taras, 2005) or on performance (Knight, 2001). In other words, summative assessment focuses on the final product rather than the learning process as it essentially aims to let a third party be aware of what the student achieved (Torrance, 1993) or to judge the quality of the taught curriculum (Pryor & Crossouard, 2008). In contrast, formative assessment (from the Latin "forma", to shape) concentrates on the process of learning (Taras, 2005). It aims to inform the learner of strategies to use to improve her work or to support her in crossing the gap between what is already known and what needs to or could be learned (Knight, 2001; Shute, 2008). Ramaprasad (1983) specifies that comments received by students can be qualified as feedback only if the students use the feedback to modify the task. This view is shared by Boud (2015) who specifies that if a student's work has not been enhanced by the feedback, then feedback has not been provided since feedback's main aim is to support students in improving their work (Gamlem, 2015). Additionally, Ramaprasad (1983) stipulates two conditions for the information to be or act as feedback: the information has to be set against criteria and it needs to direct the learner towards the goal that underpins the criteria. Effective feedback is therefore a process to inform change and support the learner in enhancing her learning (Black & Wiliam, 1998a; Coffey, Hammer, Levin, & Grant, 2011; Duijnhouwer, Prins, & Stokking, 2012; Erickson, 2007; Fluckiger, Vigil, Pasco, & Danielson, 2010; Heritage et al., 2009; Moreno, 2004; Shepard, 2009). Moreover, Carless (2016) states that "Feedback involves dialogic processes whereby learners make sense of information from various sources and use it to enhance their work or learning strategies" (p. 1). Ideally, this dialogic interaction is more than a simple conversation between the teacher and the student, it is a trusting space where meaning is co-constructed, and which allows the student to make changes to her work following this dialogic interaction she had with the teacher (Ajjawi & Boud, 2017; Yang & Carless, 2013). In this view, change and transformation can occur through a dynamic two-way exchange between the teacher and the student who together try to make sense of the students' learning and what will be the next steps (N. Anderson, 1999; Carnell, 2000).

In summary, for the purposes of this study, feedback is defined as the supporting information provided to and used by the student to close the gap in her learning, between what is already known and what needs to or could be learned next.

2.2 How can the gap in learning be bridged?

This section reviews the typology on teacher feedback identified by Tunstall and Gipps (1996a) and presents an overview of Hattie and Timperley (2007) regarding the questions feedback should answer and the four levels of feedback.

Tunstall and Gipps (1996a) propose feedback can range from evaluative to descriptive. Evaluative feedback can be rewarding, punishing, approving or disapproving, that is it can communicate a positive to a negative judgement. Evaluative feedback mainly aims to judge the student's performance, work or behaviour. On the other hand descriptive feedback is task-related and does not place judgements on students' performance. It can be divided into four categories ranging from a management to a learning orientation, and from immediate learning to future possibilities. The categories Tunstall and Gipps set out can provide teachers with a framework to discuss and reflect on the feedback they provide are as a) specifying attainment, b) specifying improvement, c) constructing achievement and or d) constructing the way forward (Tunstall & Gipps, 1996b). Specifying attainment assists students' learning by disclosing what the student has done that is right or wrong (Vercauteren, 2008). Specifying improvement focuses on errors and how they can be corrected. Constructing achievement refers to what has been learned and why, and therefore can lead to reflection. From this stage on, the student is more involved and a dialogue is likely to emerge between her and the teacher. The last category of descriptive feedback, constructing the way forward, relates to setting and achieving future learning goals.

To recapitulate, in the typology, evaluative feedback has no positive effect on enhancing students' learning since it only judges their performance without providing any strategies for improvement, whereas descriptive feedback can support students' learning by providing information that enable students to be involved in a dialogic interaction with the teacher and to maybe start to self-regulate.

A clear similarity is apparent between Hattie's model (2012) regarding feedback and the categories Tunstall and Gipps (1996, b) set out. Indeed, "specifying attainment" relates to the question "Where I am going?"; "specifying improvement" and "constructing

achievement" refer to the question "How am I going?"; and lastly, "constructing the way forward" refers to Hattie's last question "Where to next?". Since feedback is the information helping the student to close the gap between what is already known and what needs to be learned, advice needs to be provided to the student to close that gap (Duijnhouwer et al., 2012; Shepard, 2009). It is these cues, if they are used by the student, which assist her to close the gap in her learning. The comments provided by the teacher need to answer the three questions proposed by Hattie (2012). The first question, "Where am I going?", relates to the learning goals of the task, and therefore, it is important for students and the teacher to set learning goals and their related success criteria so that these are clear to both parties. The second question, "How am I going?", refers to rating the performance thus far accomplished and provides information related to failure or achievement against criteria or prior performance. The last question, "Where to next?", can direct self-regulation in assisting the student in choosing the best next task or action which could lead her learning even further (Hattie, 2012; Hattie & Timperley, 2007). The similarity between Tunstall and Gipps's typology and Hattie's model clearly shows the significance of feedback in supporting the student to move forward in their learning.

Although Hattie's three questions, and Tunstall and Gipps's typology may support students in enhancing their learning, the debate on what feedback should focus on remains. Whereas Ramaprasad (1983) suggests that feedback could focus on either input, process or output, Hattie (2012) offers different foci. Four different levels at which the three feedback questions work, can thus be considered (Hattie & Timperley, 2007): task level, process level, self-regulation and self-level.

Feedback given at the task level is mostly specific, given through comments on assignments and indicates what is correct or incorrect. Since it is less likely to be generalisable, in other words applicable to other subjects or topics, it largely augments "surface knowledge" (Hattie, 2012, p. 118). Despite being the first level of feedback, task level is essential for students' learning since it provides a solid base on which to build the other types of feedback. However, if students are not provided feedback beyond the task level, feedback is unlikely to be effective in enhancing students' learning.

Unlike task level feedback, the process level concentrates on how the task has been produced by the student instead of the task itself. At this level, the student is assisted by the teacher in creating or expanding her learning strategies especially those that can help

to detect her own inaccuracies. It is why, to be effective, this level of feedback requires that the task assigned to students is rich and complex. By receiving such feedback, the student is given the opportunity to enhance her learning and gain a "deeper understanding of learning" by being able to make sense of learning (Hattie & Timperley, 2007, p. 93).

Feedback at the self-regulation level, usually given through open-ended questions, helps students to learn how to self-evaluate their performance. They are not only able to develop a deeper understanding of what needs to be learned but they can also reflect on the development of their own learning. If students are feedback literate (Carless & Boud, 2018), they feel more confident about their own performance and are more able to self-evaluate, they are more willing to receive or even seek feedback from an external provider. Importantly, self-regulation supports students in choosing which actions they are going to take to reach their learning goal (G. Brown, Harris, & Harnett, 2012; Hattie, 2012; Hattie & Timperley, 2007; Nicol & Macfarlane-Dick, 2006). Self-regulation is defined by Allal (2010) as: "The processes of goal setting, monitoring progress towards the goal, interpretation of feedback from monitoring, adjustment of goal-directed actions and/or of the definition of the goal" (p. 349). Zimmerman (2008) adds to this the idea that students are "active participants in their own learning process" (p. 167). To increase the likelihood of students experiencing greater academic success, it is important to place assessment at the centre of this active process.

The last level of feedback, self-level, is not very effective in enhancing students' learning or even engagement. Being merely a form of praise, it can function to make students feel good about themselves. Self-level feedback does not relate to the task at hand and can even distract the student from that task. Furthermore, this last level of feedback does not answer any of the three feedback questions as set by Hattie. Although students may like being praised, it is important that the teacher keeps in mind that the praise needs to be separated from feedback itself. Furthermore, Engelsen and Smith (2010) suggest that teachers provide students who academically struggle with praise as they believe that these students need to be encouraged in order to grow their self-confidence despite the quality of their work not deserving genuine praise. To (2016) goes further by stating that praise felt insincere by the students in her study.

Brooks, Carroll, Gillies, and Hattie (2019)'s study, where Hattie and Timperley's (2007) model of feedback was used, show that in a Year 7 English class the students received

feedback regarding "How they are going" the most with the least feedback answering "Where to next". In other words, students received more feedback than feedforward. It is important to note too that the feedback received was aimed at the task level mainly, and not at the self-regulation level.

In summary, this section has explored the notions of feedback. Feedback informs the learner of what has been achieved thus far and what needs to or could be learned next. More importantly, feedback provides the learner with strategies to close that gap between these two states of learning which is only useful if it is actually used by the student as feedback plays a major role in learning. To be effective, feedback should be descriptive, non-judgmental, task related and answer three questions "Where am I going?; How am I going?; Where to next?". The information provided in the answers to these three questions relates to four different levels of feedback, the first three being the most effective to enhance students' learning.

2.3 Practices and contexts for effective feedback

This section reviews the characteristics feedback needs to meet to be effective and presents some arguments why feedback may be sometimes ineffective.

2.3.1 Characteristics of effective feedback

Feedback is the supportive information provided to and used by the student to close the gap in her learning, between what is already known and what needs to be learned next. To be effective feedback needs to meet several criteria. These are: feedback needs to be timely, to be given continuously, be personalised, be explicit, involve dialogue and be set against success criteria.

2.3.1.1 Timely

Since feedback assists students in reducing the learning gap between what they can already attain and what they need to achieve, feedback needs to be provided while a task is being completed (Moreno, 2004). The purpose of providing and students receiving feedback is for them to use its guidance in the near future to alter their work. If the time loop of the feedback process is kept short (Erickson, 2007; Irons, 2008; Anders Jonsson, 2012), feedback is likely to be more relevant to students as it relates to the learning context they are involved in at the time (Havnes, Smith, Dysthe, & Ludvigsen, 2012). G. A. Brown, Bull, and Pendlebury (2013) suggest that feedback needs to be provided minutes after a task has been completed. If the feedback is provided too long after a task

has been completed, the chance for students to better their performance is slim (Yang & Carless, 2013). Moreno (2004) holds the view that although receiving feedback *during* the construction of meaning assists all students, it helps low achievers even more. This view is shared by Black and Wiliam (1998b) who argue that since feedback highlights what needs to be improved, learners are better equipped to alter their work when the support is provided whilst they are working on their task.

Furthermore, it is crucial that time is allocated in class for students to internalise and act upon the feedback they have received (Carless, 2016; Gamlem & Smith, 2013). Although receiving feedback *during* the completion of a task is valuable to students, it is also beneficial to teachers as they can closely follow their students' learning. This allows teachers to not only identify students with learning difficulties in a timely manner (Ruiz-Primo, 2011) but more importantly it gives them the opportunity to alter their own pedagogy to ensure that all students equitably receive what they need to better their learning (Black & Wiliam, 1998b; Erickson, 2007). Wiliam (2009) argues that it is essential for teachers to use the information they collect from students' work to make the changes in their teaching within minutes or hours for students to be effectively supported in the learning process.

Providing timely feedback is a demanding task (Irons, 2008). One way to minimise this issue could be to introduce peer feedback in the classroom. Not only would it save teachers' precious time, but it would also support students' learning (Gielen, Peeters, Dochy, Onghena, & Struyven, 2010). Furthermore, students use a discourse more accessible to their peers which allow them to better understand the comments received (Cowie, 2015). However, Carnell (2000) disputes the idea that peer feedback is as effective as teacher feedback. Carnell (2000) states that some students argue that their peers know only as much as they do, and thus they are comparatively less likely to help them increase their knowledge. Although I can see that peer feedback may present some interesting aspects, I wanted to focus this study on the feedback provided by the teachers since I have noticed in my own classroom that my students would rather receive feedback from me than from their peers.

2.3.1.2 A continuous loop

Further to being timely, or "just in time" (Brookhart, 2008; Hattie, 2012), feedback needs to be ongoing or provided continuously (Ruiz-Primo, 2011). Since one of the teacher's roles is to oversee the students' learning (Pat-El, Tillema, Segers, & Vedder, 2013;

Sutherland, 2014), students need to be assessed in an ongoing way. The term "assess" derives from the Latin "assidere", which means "sit with, beside" (Heritage, 2016; McFadzien, 2015), which is consistent with the idea of teachers accompanying students along their learning journey. In this process, ideally, feedback takes the shape of a "continuous loop" (Fluckiger et al., 2010, p. 137). Within this loop, the teacher monitors the student's work, provides feedback, and again ideally the student alters her work according to the comments received. Teacher monitoring therefore needs to happen regularly so she can witness changes in students' work (Boud, 2015). This is important because it is only when the student has modified her work that the feedback loop is complete (Ramaprasad, 1983).

Carless (2019) goes further than this and argues that instead of looking at feedback as a loop, it should be conceived as a double-loop. Indeed, he points out that when a student alters her work according to the feedback she was provided with, she completes the loop. It feels then that feedback has ended. However, if feedback is perceived as a spiral it is not just about bettering student performance at one point in time but about developing students' learning strategies and learning more widely. If feedback is thus perceived, the student uses what she has learned from previous tasks and previous feedback she has received in an ongoing manner (Carless, 2019). If the feedback is viewed as cyclic, it supports the student in learning continually and it increases the likelihood for students to reflect on their own learning (Hill & West, 2020).

As for Erickson (2007), instead of the term ongoing he uses the term "proximal", which he defines as "consonant with a notion of teaching and learning as continuous and openended; a process that can be seen in the ongoing course of the interaction between students, classroom materials, and the teacher" (p. 187). For the purposes of this study, feedback is thought to take the shape of a double loop since the term proximal evokes the idea of immediacy but not the notion of continuity.

2.3.1.3 Personalised

All students are unique (Irons, 2008). They come from different socio-economic or ethnic backgrounds, and have different learning needs and so all students require personalised feedback specific to their needs (Baldwin, 2016; Boud, 2015; Anders Jonsson, 2012; McGarrell & Verbeem, 2007). Thus further to being "just on time", feedback needs to be "just for me" (Brookhart, 2008; Hattie, 2012). Espasa, Guasch, Mayordomo, Martínez-Melo, and Carless (2018) define personalised feedback as feedback that is given to

students according to their specific learning needs (see also Shute, 2008). Personalised feedback is not only specific to the particular learner, but also personalised with reference to a specific piece of work (Hatziapostolou & Paraskakis, 2010; Shute, 2008). Research with students indicates that they prefer personalised feedback (Cowie, 2005), and there is evidence it may support student engagement in learning (Planar & Moya, 2016), since they feel that their learning is more valued (Brookhart, 2008).

2.3.1.4 Explicit and set against criteria

If feedback is to be acted upon by students, it is fundamental that they are able to understand it. However, it is important to note that some students may not be familiar with the discourse in which feedback is written or that they cannot understand tacit messages (Carless & Boud, 2018; Sutton, 2012; Weaver, 2006). Since providing students with feedback is to inform learning or let them know what they have done well (Heritage & Wylie, 2018), what needs to be done, and offering them strategies to do so, it is imperative that students and teachers are assessment literate (Price, Rust, O'Donovan, Handley, & Bryant, 2012). In other words, teachers and students need to be fully aware of the success criteria for the task they are aiming to achieve, so that students know and can achieve the learning goals. Therefore, feedback comments should be set against success criteria (Coffey et al., 2011; Fluckiger et al., 2010; Anders Jonsson, 2012; Pryor & Crossouard, 2008; Torrance, 1993; Weaver, 2006). Ideally, success criteria are related to the taught content (Pat-El et al., 2013), are clear (Pryor & Crossouard, 2008; Weaver, 2006), but more importantly students need to fully comprehend them (Hatziapostolou & Paraskakis, 2010; Hendry, 2013; Tan, 2013) and revisit them often (Ruiz-Primo, 2011). Since students find success criteria difficult to comprehend (To & Carless, 2016), it is crucial that teachers unpack these criteria at the beginning of the teaching so it can give the opportunity to teachers to alter their pedagogy and to learners to monitor their performance against these criteria (Andrade & Brookhart, 2016; Willis & Adie, 2016). It is evident that if students are not clear about the success criteria, they are less likely to comprehend the feedback they receive (To & Carless, 2016).

For students to understand feedback, the language used should be simple (Bruno & Santos, 2010; Pat-El et al., 2013; Wingate, 2010), free from jargon (Winstone, Nash, Rowntree, & Parker, 2017), with no ambiguity (Rizan, Elsey, Lemon, Grant, & Monrouxe, 2014) and the comments specific, i.e. related to the task to be completed (McGarrell & Verbeem, 2007; Weaver, 2006). The comments provided need to be

detailed (Lipnevich & Smith, 2009) but not excessively so as not to annoy or frustrate students (Hargreaves, 2013). Furthermore, students need to be able to identify which part of their work needs attention (Sadler, 2010).

According to A. K. Fletcher (2018), there are three phases in the assessment process: forethought, performance and self-reflective phase. During the first phase, students are supported in analysing the task, setting up goals and identifying learning strategies. It is during the forethought phase that success criteria are unpacked and made clear to all learners. It is also during this phase that students identify the strategies they are going to use to effectively complete their task so they feel more in control because they design and monitor their own learning (A. K. Fletcher, 2016). Students monitor their work during phase two with the guidance of their teacher. Finally, in the last phase, students and teachers reflect on what has been achieved and how well it has been achieved. It is during this self-reflective phase that students evaluate the strategies set against the success criteria they have used during the task they have accomplished.

2.3.1.5 Dialogic

One way to assist students in making sense of feedback is to place feedback within a dialogue, or a two-way exchange (Boud, 2015), rather than a simple transmission of knowledge (Irons, 2008). In this case, learning is developed during a dialogic interaction between two voices during which participants create meaning together (Ajjawi & Boud, 2018; Yang & Carless, 2013). Hence, it is during this dialogue that students are assisted in understanding feedback and in enhancing their self-regulation skills which could lead them to seek guidance or ask questions when needed (Price, Handley, & Millar, 2011; Steen-Utheim & Wittek, 2017). It is within this relationship between the teacher and the student that the learner is more likely to comprehend and act upon the feedback (Adie & Willis, 2016; Ajjawi & Boud, 2017; Carless, 2012; Price et al., 2011; Telio, Ajjawi, & Regehr, 2015). Feedback as dialogue supports a shift in power since students and teachers are both involved in the process of making sense of student ideas and constructing a way forward as part of a two way exchange (N. Anderson, 1999). This can become a process of "equality, sharing, spontaneity, collaboration and reciprocity" (Carnell, 2000, p. 47). In Yang and Carless's (2013) definition of dialogic feedback, the idea of a shift in power is clear:

Interactive exchanges in which interpretations are shared, meanings negotiated and expectations clarified...Dialogic feedback is facilitated when teachers and students

enter into trusting relationships in which there are ample opportunities for interaction about learning and around notions of quality (p. 90).

This interaction benefits from being short and ongoing (Willis & Adie, 2016) and from taking place while learning is happening (Torrance, 1993). Espasa et al. (2018) argue that if feedback is provided while students are completing a task, it increases the likelihood for the feedback to be dialogic. It is in this dialogue that transformation in learning outcomes might occur (Black & Wiliam, 1998a; Carnell, 2000; Dixon, 2011; Hawe & Parr, 2014; Pryor & Crossouard, 2008; Ruiz-Primo, 2011).

2.3.2 Ineffective feedback

Despite the provision of feedback being singled out as being what students benefit the most from (Hattie, 2009), presenting learners with effective comments does not always happen for a myriad of reasons (Bond, Smith, Baker, & Hattie, 2000; Winstone & Carless, 2019). In this section, the three main reasons why this might be the case are presented. These are: 1) a lack of knowledge from teachers, 2) the time it takes to provide feedback, and 3) the dismissal of feedback by students when it has been provided.

2.3.2.1 Lack of knowledge from teachers

Further to pedagogical and content knowledge, teachers need to fully comprehend the process of learning (Heritage et al., 2009). Importantly, they need to have a good grasp of how to assist students in accessing the next step of their learning. This is possible only if teachers can draw evidence of where the learners are at regarding their learning and where they need to be (Bennett, 2011). However, some teachers might find it difficult to use and understand this data (Crisp, 2007; Erickson, 2007). Some teachers are very capable in judging the quality of students' work but find it difficult to point out clearly what is needed for students to improve their performance (Bourgeois, 2016).

It is important that feedback's role in the students' learning process is planned ahead by teachers during the design of their course (Malecka, Boud, & Carless, 2020). If the feedback process is fully implemented in a course design, it may support students in enhancing their understanding of what feedback is and how to act upon it (Carless & Winstone, 2020).

Some literature brings forward the idea that the lack of knowledge from teachers regarding assessment literacy exists on a continuum (DeLuca, Chapman-Chin, & Klinger, 2019; Xu & Brown, 2016). No longer is there the idea that teachers have the knowledge

or do not, but more the idea that they can evolve on a continuum from novice to expert. DeLuca et al. (2019) state that teachers who transition from one side of the continuum to the other, see their whole assessment pedagogy change. For instance, they use assessment criteria deliberately in their teaching and students become more autonomous in their learning (James & McCormick, 2009).

2.3.2.2 The provision of ongoing feedback is time consuming

To be effective, feedback needs to be timely, continuous, personalised, explicit and dialogic. It is evident that meeting these criteria is time consuming, which might explain why teachers are not providing their students with frequent good quality feedback (Bose & Rengel, 2009; Chalmers, MacCallum, Mowat, & Fulton, 2014; Knauf, 2016; Lipnevich & Smith, 2009; Wingate, 2010; K. A. Wood, Moskovitz, & Valiga, 2011).

2.3.2.3 Feedback can be ignored by students

As it has been seen previously, if feedback is not used by students, then it is not feedback (Ramaprasad, 1983; Sadler, 1989; Shepard, 2009; Wiliam, 2011; Wingate, 2010). When students are provided with feedback, they sometimes ignore it or do not use it to its full potential (A. Mutch, 2003). They do not use feedback to alter the gap in their learning for diverse reasons such as a teacher's illegible handwriting (Carless, 2006; Hepplestone, Holden, Irwin, Parkin, & Thorpe, 2011; Rodway-Dyer, Dunne, & Newcombe, 2009; Zellermayer, 1989), they do not understand the comments due to the difficulty of the teacher's language (Crook et al., 2012; Anders Jonsson, 2012), the feedback is too vague (McGarrell & Verbeem, 2007; Weaver, 2006) or is received too late to be useful (Crook et al., 2012; McCarthy, 2015). Since feedback needs to be understood to be effective, it is essential students fully comprehend the comments they receive (Tan, 2013).

To sum up, this section has highlighted that despite the provision of feedback being singled out as being of benefit, providing students with effective comments does not always happen. The lack of knowledge from teachers, the time it takes for teachers to provide each student with frequent feedback and the dismissal of received comments by students due to its vagueness or incomprehensibility, are some of the explanations why effective feedback is not regularly provided or used.

2.4 Digital feedback

Providing effective feedback can be a daunting task for teachers who are already very busy professionals (Brookes, 2010; Irons, 2008; Knauf, 2016). Using digital technology

when providing feedback has the potential to benefit both teachers and students. Tuzi (2004) defines digitally provided feedback as "teacher's feedback in digital written form that is transmitted via the web" (p. 217). Using digital technology allows the person providing the comments to easily offer different modes of feedback such as written, audio and video using programmes such as word processing, wikis or stylus scribing (Costello & Crane, 2013). With a click of a button, teachers can record their voice, a video or type a comment. Since digital technology is ubiquitous in our societies (Project Tomorrow, 2012), accessing these tools is no longer an issue for teachers and most students in New Zealand (Hartnett, 2017).

This section discusses the role that digital technology can play in facilitating the provision of feedback, especially in ensuring that the comments received meet most of the criteria that define effective feedback.

2.4.1 Timely

Receiving timely feedback is crucial for students. Feedback needs to be provided while students work on their task. It has been argued earlier that one of the reasons why teachers do not provide effective feedback is the time it takes to do so. Using digital technology can support teachers to efficiently provide feedback more quickly and easily in an ongoing manner while students are working on a task (Chalmers et al., 2014; Gomez et al., 2013; Henderson & Phillips, 2015; Macgregor et al., 2011; McCarthy, 2015; van der Kleij, Eggen, Timmers, & Veldkamp, 2012; J. Wood, 2021). Indeed, as ample literature suggests, providing audio feedback is faster than writing comments (J. Brown, 2007; Cann, 2014; Carless, 2006; Hatziapostolou & Paraskakis, 2010; G. Johnson & Cooke, 2016; Knauf, 2016; Lunt & Curran, 2010; Nortcliffe & Middleton, 2007). Knauf (2016) states that it takes a teacher half an hour to write feedback for one student whereas audio feedback will take half the time. Macgregor et al. (2011) mention that it takes 4 minutes 32 seconds to record an audio feedback and 8 minutes 50 seconds to write it. Lunt and Curran (2010) go further by arguing that one minute of audio feedback is the equivalent of six minutes of written feedback. However, not everyone shares this view; C. Morris and Chikwa (2016) observe that providing audio feedback is not as fast as they were hoping. This view is shared by Crook et al. (2012) regarding the provision of video feedback. Nevertheless, despite commenting on the gain of time not being as great as she had hoped, Bauer (2011) acknowledges that her audio comments are of a better quality than her written ones.

2.4.2 Continuous

If feedback is to be effective, it needs to happen in a "continuous and open-ended" loop during which teachers check students' work (Erickson, 2007, p. 187), offer feedback and modify their instruction to meet students' learning needs. Students can then alter their work according to the received feedback. The use of digital technology can assist this process in allowing students to store provided feedback more easily and to revisit that feedback at convenient times as and when they need it (Brookes, 2010; Lunt & Curran, 2010; Macgregor et al., 2011; McCarthy, 2015). Malecka et al. (2020) call the idea of students and teachers being able to come back to a feedback comment, traceability. Revisiting previously provided feedback can permit students to track their progress which can increase the likelihood of learners starting to reflect on their own learning (Irons, 2008). Furthermore, students' work which has been typed can be read three times faster than if it had been handwritten (Warschauer, 2011). Therefore, teachers might be more likely to provide more frequent feedback if digital technology helps them to go through more content in the same amount of time they would have spent reading handwritten tasks.

2.4.3 Personalised

Not only does digital technology increase the likelihood of teachers providing ongoing timely feedback, but it also eases the provision of personalised feedback. Students who have received digitalised feedback, such as audio and video, claim the feedback feels more personal (Bauer, 2011; Dixon, 2011; Harper, 2009; Issa & Isaias, 2014; Macgregor et al., 2011; McCarthy, 2015). Students even suggest that it seems that the teacher *cares* more about their work when they give audio than written feedback (Huang, 2000; Ice & Curtis, 2007; McCullagh, 2011). This can be due to several reasons:

- Receiving audio or video feedback is similar to having a face-to-face conversation (Dixon, 2011);
- Receiving feedback in the space where their learning is happening (Hatziapostolou & Paraskakis, 2010) and that it is done discreetly (Hepplestone et al., 2011).
- Receiving digitalised audio or video feedback shifts the power thus far in place between the student and the assessor (Dixon, 2011; Värlander, 2008). Students who usually receive a comment accompanied by a grade, see the teacher as an assessor, whereas when receiving feedback only, teachers can be instead perceived as a facilitator. Bauer (2011) when describing her experience in using audio feedback

commented on how relaxed, friendly and professional she felt. She adds that talking to her phone (the device she uses to record her audio feedback) gives her the impression of having a conversation with her students.

2.4.4 Explicit

Feedback that is vague, containing illegible handwriting or challenging language is difficult to comprehend. Students, who receive digitalised audio or video feedback, comment they can understand it much better because it is more specific (Harper, 2009), and detailed (Green, 2015; Henderson & Phillips, 2015) with ample examples (Bauer, 2011; Dixon, 2011; Huang, 2000; McCullagh, 2011). Middleton (2011) suggests that this is due to the fact that, since audio feedback is not directly linked to students' work, teachers need to reference the text explicitly to assist the students in finding what the comment refers to in the students' work. Additionally, using audio or video feedback lessens issues regarding teachers' illegible handwriting or comments crammed in the side margins of students' work (Bauer, 2011; Crook et al., 2012; Hepplestone et al., 2011; McCarthy, 2015). Since audio and video feedback can be heard, comments can be more easily understood because students can hear the tone of their teacher's voice. Indeed, the tone of the voice can be used to highlight some points and support students in understanding subtlety in comments (Bauer, 2011; Dixon, 2011; Ice & Curtis, 2007; McCarthy, 2015; Rodway-Dyer et al., 2009).

2.4.5 Dialogic

Since it is during the interaction between the student and the person providing the feedback that knowledge is constructed and learning happens, it is important that feedback be dialogic. Digital technology has the potential to assist students, peers and teachers to offer feedback through dialogue during which all parties can participate and grow together. Traditional methods of providing feedback do not always facilitate the implementation of a dialogic interaction (Gomez et al., 2013). Written comments on paper do not easily allow students to question or answer the person who has provided the feedback. Face-to-face conversations are time consuming and are not always feasible when teaching a big class. Digital technology can facilitate dialogue (Brearley & Cullen, 2012; Dixon, 2011; Hepplestone et al., 2011; Looker & Naylor, 2010; Sweeney et al., 2017). Students can include their comments directly underneath the teacher's digitalised written comment, or after the audio or video feedback. Furthermore, since this dialogue happens in students' own learning space, confidentially and safely without being judged

by their peers (Ames, 1992; Price, 2007; Ribchester, France, & Wheeler, 2007), students can more easily initiate a conversation, which can be difficult.

2.4.6 Hybrid approach

The literature regarding students' preferences about modes of feedback suggests mixed findings. Some literature states that students prefer receiving digitalised audio or video feedback (Green, 2015; Nortcliffe & Middleton, 2007; Rodway-Dyer et al., 2009) whereas other literature mentions that students prefer written feedback (C. Morris & Chikwa, 2016). Additionally, some literature argues a hybrid approach would be more beneficial for students (Brearley & Cullen, 2012; Dixon, 2011; Huang, 2000; Knauf, 2016). A hybrid approach combines written and audio/ video feedback, to cater more widely to students' diverse learning needs.

2.4.7 Feedback provided on an online collaborative writing platform

Since the school where this study took place uses Google Suite, students were able to complete their assessment task on Google Docs. Similar to Microsoft Word, Google Docs is an inexpensive popular cloud based word-processing tool (Chong, 2019; Yim, Warschauer, & Zheng, 2016). Cloud-based is defined as "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources" (Mell & Grance, 2011, p. 2). Easily available and easy to use, Google Docs presents numerous affordances (Yim et al., 2016). Affordances are "functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object" (Hutchby, 2001, p. 5). Affordances are the quality or utility of an object. However, Beach (2018) adds that affordances do not only refer to the properties within the object but are also related to what teachers can do with that object. Google Docs affords collaborative work as several authors can amend the same document simultaneously (Zheng, Lawrence, Warschauer, & Lin, 2015). It also allows the provision of effective feedback (Zheng et al., 2015). Chong (2019) finds that the use of Google Docs permits teachers to give more detailed feedback since there is no restriction on the space teachers can write. Additionally, he finds that interactions between teachers and students can take place outside of the classroom. The 93 college students learning English as a second language who participated in Chong's study stated that the feedback received was more specific and readable. Furthermore, one very useful feature of Google Docs is that it highlights the sentence(s) the feedback refers to therefore Google Docs allows feedback to be specific.

To recapitulate, in this study feedback is understood as supporting information provided to and used by the student with the aim to reduce the gap between what is already known and what needs to or could be learned next. If feedback is to be effective, it needs to meet several criteria; mainly it needs to be: timely; continuous; personalised- or "just for me"; explicit- or related to the task; and set against success criteria. Furthermore, feedback needs to provide information in ways that enable students to be involved in a dialogic interaction with the teacher. Using digital technology when providing feedback has the potential to benefit both teachers and students. Teachers can record their voice, a video or type a comment. Teachers' use of digital technology comes with the potential to support teachers to deliver feedback more quickly and effortlessly. Furthermore, it allows students to store provided feedback more easily and to revisit that feedback at times convenient to them. Students in previous studies have reported digital feedback feels more personal, more specific and more detailed. It has also been argued that dialogic feedback can be facilitated by the use of digital technology. In the next section, I outline the persuasive writing genre as the context for teacher and student provision and use of feedback.

2.5 The persuasive genre

Writing is a complex process that requires individuals to think about and organise their ideas (O'Neill, 2012), and to critically analyse these during the production of text (Aziz & Ahmad, 2017). During the writing process a writer needs to switch roles and become a reader to assess if the message intended has been transmitted (Aziz & Ahmad, 2017). The persuasive writing genre, which is the focus of this study, is particularly challenging as it demands a logical organisation of arguments (Crowhurst, 1993; Dobbs, 2014) however, students mastering the persuasive writing style is important if students are later to fulfil their democratic rights and gain access to higher education (Howell, Hunt-Barron, Kaminski, & Sanders, 2018; Nippold, Ward-Lonergan, & Fanning, 2005; O'Neill, 2012; D. P. Thomas & Brett, 2016). It is for these reasons I have chosen this genre of writing as the focus of this study.

This section defines persuasive writing as it is conceived in this study and sets out how it is connected with social relations of power and finally identifies how the use of rubrics and exemplars can support students' understanding of what persuasive writing encompasses.

2.5.1 A definition of persuasive writing

Aziz and Ahmad (2017) define persuasive writing as a genre that aims "to persuade the audience to change their minds and agree with the writer or take action toward a specific issue through the use of logical reasoning" (p. 19). The Australian Curriculum Assessment and Reported Authority (2013)'s definition adds the idea that persuasive writing "requires the writer to adopt a sense of authority on the subject matter and to develop the subject in an ordered, rational way" (p. 5). In this study, I view persuasive writing as a genre that aims to influence the reader to accept a certain point of view by using logically organised arguments.

The persuasive writing genre can be used in different types of texts ranging from letters to articles in magazines (Crowhurst, 1993). Regardless of the kind of text, persuasive writing is about creating a strong relationship with the audience and building arguments according to this audience, a process which can be difficult for students (J. A. Morris et al., 2018). For this process to be effective, it is necessary for writers to know their audience in order to convince them (Aziz & Ahmad, 2017; Ministry of Education, 2015). Knowing who will read their work allows students to present arguments in a manner they predict the readers will find engaging and be convinced by (Nippold et al., 2005).

Regarded as a valuable writing style (Nippold et al., 2005), the persuasive writing genre is important if students are later to fulfil their democratic rights and access to higher education (Howell et al., 2018; Nippold et al., 2005; O'Neill, 2012; D. P. Thomas & Brett, 2016). As citizens, students will later need to influence people around them, such as their co-workers, or will need to convince politicians to adopt new policies they believe to be beneficial for their own communities (Crowhurst, 1990; Nippold, 2000).

2.5.2 Persuasive writing and social relations of power

Persuasive writing is known to be demanding for students (Nippold et al., 2005; O'Neill, 2012) in part because of its elaborated codes (Bernstein, 1971) therefore when teaching the persuasive writing genre, educators run the risk of reproducing the social inequalities already experienced by students outside the school walls. This section presents persuasive writing genre's codes and offers ways teachers can strengthen the Framing experienced by students.

2.5.2.1 Persuasive writing codes

The persuasive writing genre is challenging because of its language use and argumentative organisation (Dobbs, 2014). It demands students follow strict and logical organisation of arguments (Crowhurst, 1993), use complex language structures (Nippold et al., 2005) and be critical thinkers (Aziz & Ahmad, 2017). This section presents the language features and logical sequence of arguments students need to display when they are using the persuasive writing genre. It also argues some students from disadvantaged backgrounds are not as well equipped to use this writing genre as they do not fully comprehend their codes (Chall & Jacobs, 1983; Donnelly, 2018). Finally, this section presents ways in which teachers can strengthen the Framing when teaching this writing style.

Language

The persuasive writing genre includes the need for language features such as literate vocabulary (Nippold et al., 2005), along with the use of passive verbs, timeless present tense and varied adjectives (Ministry of Education, 2015). To be successful at writing an argumentative text, students need to show degrees of certainty and employ a wide range of figures of speech throughout their work (D. P. Thomas & Brett, 2016; Uccelli, Dobbs, & Scott, 2013) and it may prevent those from social and economic unprivileged backgrounds who do not possess such an elaborated code from experiencing success (Pace, Luo, Hirsh-Pasek, & Golinkoff, 2017). Furthermore, a logical sequence must be followed throughout the writing to ensure the argument flow is well structured (Aziz & Ahmad, 2017; Ministry of Education, 2015). Toulmin's method (1958) is an example of the logical organisation of arguments. It comprises six organisational structures and inspired the work of Aziz and Ahmad (2017) and Weida and Stolley (2017), and is summarised in the following table

Table 1: Toulmin's method

Organisational structures	Description	
Claim	The basic statement argued	

Data	Facts and evidence to support the claim
Warrant	Implicit statement that serves as a bridge between the claim and the data. It is a logical explanation how the data supports the claim
Backing	Facts that support the warrant
Counterclaim	A claim that identifies what is wrong with the claim
Qualifier	Possible limits of the claim

Broadly speaking, this sequence progresses through putting forward claims and counterclaims where these are backed up by evidence. Indeed, it is important that the writer's stance is supported by solid evidence and that alternative views are also presented. However, in order to persuade her reader, the author needs to choose carefully the evidence of the counterclaims as it has to be solid but not as convincing as the evidence used in her own arguments (Stapleton & Wu, 2015).

• Codes and discourses

Schools require students to use and fully comprehend new ways of thinking and new genres (Christie, 2012). These new genres, such as persuasive writing, can be challenging for some students especially when teachers who fully understand these codes due their own cultural and social capitals might miss the opportunity to clarify to ill-equipped students what needs to be learned (Uccelli et al., 2013). As seen earlier, students from more advantaged backgrounds, come to school with access to both restricted and elaborated codes (Bernstein, 2000; Christie, 2012). In other words, these students are capable of switching from one code to the other very easily whereas students less advantaged might have more difficulties to do so. Gee (2015) instead of using the term codes, employs the word discourse stating that "a person's primary discourse serves as a "framework" or "base" for their acquisition and learning of other discourses later in life" (p. 173). By other discourses, he makes reference to literacy, which he defines as "the

mastery of a second discourse" (p. 196). Gee (2015) acknowledges that it is beneficial for students if their primary discourse shares any similarities with the second discourse: here the school discourse or elaborated codes. If not, students need to appropriate the second discourse for themselves and master new codes (Christie, 2012).

• Strengthening of the Framing

Mastering the persuasive writing genre code is challenging (O'Neill, 2012), even more so for students who are not or who are less familiar with such elaborated codes (Bernstein, 2000). Importantly, teachers need to make learning explicit. Explicitly modelling the logical organisation of arguments along with the relevant language features is needed to support students in mastering the skills necessary to succeed in this genre (Aziz & Ahmad, 2017; Langer & Applebee, 1987; J. A. Morris et al., 2018). If these codes and features are not explicitly explained to all students, especially those who come from disadvantaged backgrounds, socio-economic inequalities and privileges are more likely to be reproduced since students from more advantaged milieu tend to come to school already equipped with School Language codes (Uccelli et al., 2013). It is thus important that teachers decode and scaffold the persuasive writing genre's codes for low SES students to witness a strengthening of the Framing (Christie, 2012). For instance, ensuring that reading argumentative texts takes place before writing is an essential step in the scaffolding process (S. K. Clark & Neal, 2018; Spano, 2017).

To summarise this section, the persuasive writing genre is a complex style to master even more so for students who come from disadvantaged backgrounds since they might have had less access to and find it more difficult to comprehend the persuasive writing's codes, logical organisation of arguments and language features. Students from more advantaged backgrounds might be expected to more easily switch between codes or discourses. Therefore, it would seem important for teachers to explicitly teach the codes and languages features of this writing genre for students from low SES to fully comprehend it.

2.5.2.2 Exemplars and rubrics

There is evidence that providing students with exemplars and rubrics can support their understanding of a task and offer them guidance to monitor their performance against some work completed by previous students.

Exemplars

Exemplars, defined as: "carefully chosen samples of student work used to illustrate dimensions of quality" (Carless, Chan, To, Lo, & Barrett, 2018, p. 108), permit students to evaluate and augment the quality of their work and augment the quantity of their work (Andrade & Brookhart, 2016; Tai, Ajjawi, Boud, Dawson, & Panadero, 2018). Reading the feedback that had been provided to previous students allows new students to understand the feedback and identify what could have been altered in order to receive a better grade (Handley & Williams, 2011). It is however during the discussions around exemplars that students are able to increase their understanding of what is asked of them. These discussions can take place between the teacher and students, between students and their peers, or both, and show an increase in students' performance (Hendry, Armstrong, & Bromberger, 2012; To & Carless, 2016). These discussions allow a weakening of the Framing as they clarify points that may have been unclear for some students (Carless et al., 2018; To & Carless, 2016; Yucel, Bird, Young, & Blanksby, 2014).

• Rubrics

Drawing from different educators' views, Reddy and Andrade (2010) define a rubric as a "document that articulates the expectations for an assignment by listing the criteria or what counts, and describing levels of quality from excellent to poor" (p. 435). A rubric is composed of at least two parts, one identifying the criteria to look for, and the other exemplifying these criteria, in other words, what these criteria could look like in a student's task at each level of quality (Brookhart, 2018). Like exemplars, rubrics can support students in enhancing their performance (Andrade & Brookhart, 2016). Although rubrics can be used as an assessment tool to judge students' performances (Chan & Ho, 2019), they can also be used by students as a formative means, which allows them to monitor and evaluate their own work (Anders Jonsson, 2014; Reddy & Andrade, 2010). For instance, one of the students who participated in a five-year long study with Carless (2019) admitted to pasting at the top of each of her work the rubric given by her teacher in order to self-evaluate her performance.

In summary, persuasive writing genre aiming to persuade an audience to change their minds is a complex writing genre due to its elaborated codes, discourses and logical organisation of arguments. It is therefore important that teachers explicitly teach in such a way to ensure low SES students fully comprehend it since they might only be familiar with one discourse, the one from home. Exemplars and rubrics can be used as formative

tools to assist students to evaluate and monitor their performance. I explore this potential in this study.

2.6 A Bernsteinian perspective on equity and digital technology

This section draws from Bernstein's theory to describe how schools reproduce social inequalities. The proposition is that students from ill-served backgrounds are unlikely to see their disadvantages attenuated whereas students from a more advantaged status are likely to see their privileges sustained. In the section, I present Bernsteinian concepts and explain how some recontextualisation tools may aid students from ill-served backgrounds in accessing knowledge (see section 1.3).

2.6.1 Schools: Places which assist in reproducing social inequalities

Bernstein (2000) sees education as the foundation of democracy (Christie & Martin, 2008; Vitale & Exley, 2015). He holds the view that on the whole schools do not interrupt social inequalities experienced by students but instead reproduce them. In other words, students from ill-served backgrounds are unlikely to see their disadvantages being attenuated while attending a school. Likewise, students from a more advantaged status are likely to see their privileges enhanced during their schooling (see also Barrett & Moore, 2015; Bowles & Gintis, 2011). Apple (2015) asserts that if we are to address this social impact of schools, considering Bernstein's work is pivotal.

This section is divided into three parts. First, cultural and economic capital are discussed, then pedagogical relationships, and lastly digital technology as capital is considered.

2.6.1.1 Social and cultural capital

This sub-section reviews the concepts of social and cultural capital. Despite being from Bourdieu, these concepts are seen by some scholars as similar to some of Bernstein's ideas such as Codes (Muller, 2011; Singh, 2002). Another similarity between both men's views is also the importance of Language used by students and teachers. Therefore, I start by briefly presenting the notions of social and cultural capital, in anticipation that the place that Language holds for Bernstein will become clearer and more meaningful.

It is self-evident that not all students experience the same economic wealth or capital (Hay & Penney, 2013), but also important are the social and cultural capitals they bring to school. Bourdieu (1986, p. 241) defines capital as "accumulated labor...which, when appropriated on a private...enables them to appropriate social energy in the form of

reified or living labor". Social capital can be described as social connections and the relations in the family itself between children and parents (Bourdieu, 1986; Coleman, 1988). Social capital can be transformed into economic capital. Cultural capital can be embodied, objectified (such as books, instruments or machines) and institutionalised (for instance, education qualifications). Cultural capital encompasses familial transmission of resources. Social and cultural capitals are more difficult to quantify as they are less tangible than economic wealth (Hay & Penney, 2013). According to Bourdieu (1986, p. 107) "the best hidden and socially most determinant educational investment, namely, [is] the domestic transmission of cultural capital". Social and cultural capital thus encompass students have to bring to their learning.

If schools reproduce socio-inequities, it is not because students bring different capitals to school but more in how schools address any differences and gaps (Apple & Wexler, 1978). In schools, students who already possess a rich social and cultural capital typically see their capital increase, while those who do not possess ample capital are less likely to witness any increase (Apple & Wexler, 1978). This can be exemplified by two situations. The first one relates to the teacher's culture. Indeed, a teacher is most likely to assist students who share the same capitals as them, which will, therefore, help students with similar advantages progress and enhance their learning (Jæger, 2009; Panofsky, 2003). Secondly, cultural and social capitals are used by educators, policy makers and other dominant groups to reaffirm their already existing power and privileges. For instance, these groups usually decide the curriculum and therefore what is considered valid knowledge (Jæger, 2009).

2.6.1.2 Pedagogical relationships and control

Language holds a place of great importance for Bourdieu and even more so for Bernstein (2000). Language here is to be understood as "a social construction and not language as a human attribute" (Bautier, 2011, p. 118). For Bernstein (2000), language allows us to think the unthinkable and is a way for one group to control another. For instance, a pedagogical relationship can exist between a doctor and a patient, where one individual has the control over another one, or between a guard and a prisoner (Bernstein, 2000).

This section explores the role of the Codes, of the Pedagogic Device and of Pedagogic Discourse in assisting schools in reproducing social inequalities.

Codes: Elaborated and restricted

According to Bernstein (1971), there are two types of codes, or systems of Language, which cohabit: the elaborated code and the restricted code. When a code is said to be restricted, it implies that only those who already know or who were initiated to this code can access it. Individuals who can comprehend this code share a common and often implicit grasp of the code and use this to decipher the message (Moore, 2013). Since one needs to be introduced to a restricted code, it is context-specific as only those sharing the required tacit knowledge of the code can comprehend it (Maton & Muller, 2009). When a code is said to be elaborated it refers to a structure of language systems which are context independent, universal and more general (Hoadley & Muller, 2010; Sadovnik, 2009). The language used in a restricted code is more predictable and individuals using this kind of code are expected to pass on their knowledge with accuracy (Atkinson, 1985; Grignon, 2011). However, loyalty to restricted conventions can limit freedom of speech and access to the abstract thoughts or the unthinkable (Bautier, 2011; Bernstein, 2000; Grignon, 2011; Moore, 2013; Rata, 2016; Wheelahan, 2009).

Every time an individual speaks, she reveals her social belonging to a specific group through her use of particular elaborated and restricted codes (Grignon, 2011). It is important to note here that the use of one or either code is not a reflection of the culture of the group she is a member of or the culture of a particular economic class, but instead it is concerned with "the social distribution of knowledge and power in accordance with the social division of labour" (Atkinson, 1985, p. 75). Indeed, codes are an echo of the domination of one class over others (Atkinson, 1985), where class is understood as "a group of individuals who occupy a similar position in the economic system of production" (University of Delaware, n.d.). Students from disadvantaged backgrounds or from low SES usually arrive at school without having mastered or even having encountered the School code, or school Language (Bautier, 2011; Hoadley, 2006). That is, they tend to be unfamiliar with the Language used at school, which may prevent them from understanding the implicit discourse used by teachers, the curriculum or even students from high or middle SES backgrounds (Jæger, 2009; Sadovnik, 2001). Families from the middle class are more likely to employ the same kind of language used by schools and tend to implicitly communicate to their children skills useful for a successful schooling (Atkinson, 1985). Since School's knowledge is transmitted using the elaborated code (Bautier, 2011), it could be beneficial for students from low SES or disadvantaged backgrounds if schools were developing structures that could support or bridge these

students' discourse from restricted to elaborated codes so that they could gain access to School's knowledge.

• The Pedagogic Device

Defined as "a site for appropriation, conflict and control" (Bernstein, 2000, p. 28), the Pedagogic Device is not a device per se but a set of rules which regulate Pedagogic Discourse (Au, 2014; McPhail, 2016). It is a process of the communication and the acquisition of the knowledge in the classroom, which legitimises the dominant discourse. It is through the Pedagogic Device that *symbolic control* takes place (Bernstein & Solomon, 1999). There are three rules or principles that regulate the Pedagogic Device: the distributive rule; the recontextualising rule and the evaluative rule.

The distributive rule concerns institutional practices, such as governments, and gives access to different kinds of knowledge to different social groups. It creates an arena of struggle between groups since who has access to this rule can regulate who learns what and under what conditions (Bernstein, 2000; Loughland & Sriprakash, 2016). The recontextualising rule relates to the discourse being transformed from its first site of production to another. The discourse is altered from one person to another (Singh, 2002). The evaluative rule deals with pedagogic practices and sets out what needs to be acquired. It identifies what is valid knowledge and what are social manners (Bernstein, 1986; U. Clark, 2005; Robertson, 2004; Singh, 2002). These three rules are hierarchical since the distributive rule produces the recontextualising rule which produces the evaluative rule (Au, 2014).

It is in and through the Pedagogic Device that educational knowledge is controlled and legitimised and that schools and teachers reproduce socio economic inequalities encountered by students outside the school (Loughland & Sriprakash, 2016). For instance, assessment plays a major role in this reproduction of socio inequalities as it identifies the knowledge discourses (Hay & Penney, 2013).

The Pedagogic Device is comprised of three fields: the production of knowledge, the recontextualisation of knowledge and, finally, the reproduction of knowledge. Knowledge production takes place in universities or in academia sites where new knowledge is generated. The second occurs within institutions such as governments, curriculum authorities or teacher colleges where valid knowledge is decided. The field of reproduction of knowledge takes place in schools where the new knowledge is decoded

and translated into a comprehensible discourse by transmitters for the acquirers (Singh, 2002). The role of teachers within the reproduction field is central to students' experience of and learning in school. Teachers create a bridge between the discourse produced by the production field and the recontextualisation field. By their choice of texts, activities, use of specialised vocabulary and feedback, teachers can translate the knowledge said to be valid by the recontextualisation field so that students have a better chance of fully understanding it. It is because of the possibility for the teacher to translate the School's discourse that this investigation is interested in investigating if and how feedback, when provided digitally, can support students to comprehend School knowledge and any new knowledge that needs to be acquired.

• Pedagogic Discourse

Pedagogic Discourse is a set of rules enabling the creation of different discourses which can alter the power and control among the people involved (Singh, 2002; Straehler-Pohl, 2015). In order to alter these power relations, Pedagogic Discourse enables two discourses to be embedded one into the other therefore the Instructional Discourse is embedded in the Regulative Discourse (Hay & Penney, 2013). The Instructional Discourse refers to the content to be taught, such as curriculum, whereas the Regulative Discourse is concerned about the way it is taught. Although the latter is dominant, both discourses play a significant role in enabling some groups affirming their power since Pedagogic Discourse is very political (Bernstein & Solomon, 1999; Hay & Penney, 2013; Martin & Rose, 2007; Moore, 2013; Singh, 2002). Thus, not only do the policy makers and those who write the curriculum, because they decide what is valid knowledge, have a certain power, but also the teachers and the schools who choose how the prescribed content is going to be taught (Maton & Muller, 2009). Furthermore, teachers retain their relationship of power over their students since they recontextualise the curriculum (what needs to be taught). Teachers are thus the bridge between the sites of production (where knowledge is created) and the sites of reproduction (the classrooms) (Maton & Muller, 2009; Willis & Adie, 2016). The person who recontextualises the knowledge holds a lot of power as she chooses what is important to learn and what is superfluous (Bernstein, 2003; Willis & Adie, 2016). Since teachers and schools may have a choice of what texts can be used within their classes despite having limited power regarding the content, it furthers their position of power as they might choose materials which reflect their own cultural capital, and which might be unfamiliar to their students from low SES. This

choice of content and texts might then further increase the gap between students from different socio-economic and cultural backgrounds. The teachers' task is to support the students in closing the gap between what they already know to what needs to be known as teachers have already been initiated to the school's knowledge (Bautier, 2011; Moore, 2013).

One way to support students in closing that gap is using digital technology. However, not all students come equally prepared to use digital technology as a tool to close that gap. In the next section, I present digital technology as a form of capital, its affordances and reflect on the digital divide present in schools.

2.6.1.3 Digital technology as capital

Digital technology has the potential to create a more equitable learning experience (Looker & Naylor, 2010) but it should not be perceived as a panacea since it presents some limits, such as physical access by *all* students. Without aiming to ignore any limitations, this section presents a view of digital technology as a form of capital, then sets out the affordances of technology and one type of digital divide.

• *Technology as a form of capital*

As briefly identified earlier, a student's wealth is not her only capital, as social and cultural capitals play an important role in access to education. According to Jæger (2009), three conditions need to be met for individuals to possess a certain capital. First, it is necessary for parents to have this capital, then they need to pass it on to their children who, finally, need to internalise it and use it in order to experience academic success. In this thesis, I am interested in considering student and teacher technology capital (Looker & Naylor, 2010; Naylor & Frank, 2010). Livingstone (2009) states that children whose parents are educated are more likely to be internet literate since parents can casually scaffold and support their children's learning. Furthermore, she adds that middle-class parents are more able to help their children since they are more knowledgeable regarding the internet and digital technology in general. In a survey of 239 elementary students in Turkey, Firat (2017) found that the more the parents are educated the more students are capable of recognising technology as an artefact that could support their learning. Since students are more likely to learn the use of technology devices at home (Hartnett, 2017), it is evident that if parents do not possess the skills and knowledge of how to use technology, it is very unlikely that their children will. This situation can be mitigated by teachers and schools (Livingstone, 2009), which need to endeavour that all students learn the skills and knowledge necessary to confidently use technology as part of their learning (Naylor & Frank, 2010).

• Technological affordances

As it has been argued thus far (see section 2.4), digital technology may play a significant role in allowing learners to achieve something which might have been challenging without its use (Brookes, 2010). Technology can act as what Gee (2008, p. 88) calls a "mediating device". What he means by this is that any technology as well as any individual can act as a mediating device. However, if the potential of a mediating device is not seen by the learner, it is not an affordance of their environment (Gee, 2008). If a student enters school without comprehending the Schools' Code and also without seeing the potential in using technology for learning, it might be more difficult for her to realise that digital technology may act as a mediating device alongside the teacher. This might further increase the achievement gap between students who come to school technologically well-equipped and those who do not, since students from middle or high SES are more likely to have had access to this kind of "cultural participation" (Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009, p. 19).

• Digital divide

The divide relating to who has access to digital technology is well known to educators (Resta & Laferrière, 2015; Warschauer, 2011). However, as it has been discussed in previous sections, digital technology is nowadays ubiquitous (Hartnett, 2017; H. Thomas, 2017), meaning the real problem might no longer be who has physical access to technology but who possesses the skills and knowledge of how to use it effectively (Reinhart, Thomas, & Toriskie, 2011; Wei & Hindman, 2011). For students this issue includes who possesses the skills and knowledge of how to use it efficiently for learning. Selwyn (2011) argues that the solo use of technology in education may not mitigate the "pre-existing barriers", such as lack of time, SES and resources, that students already experience if appropriate assistance is not provided. Resta and Laferrière (2015) define digital equity as not only the objective that everybody has access to technology but also that everybody has the adequate "knowledge and skills to use these resources to enhance their personal lives" (p. 744). Therefore, one of the roles of schools and educators is to ensure that all students are supported in increasing their understanding of how to effectively use technology and in realising the potential of digital technology to help them in deepening their learning.

However, not all technologies present the same affordance for students. Some, such as Naylor and Frank (2010) as well as H. Thomas (2017), raise the issue of the importance of teachers in selecting the right technology for their students when the goal is to close the gap in equitable access to technology and foster effective use. The use of digital technology during instruction might widen the gap between students from ill-served backgrounds and those from more advantaged ones if teachers are not trained adequately or are themselves unaware of what opportunities there are. Moreover, this gap can also widen if teachers are not aware of the technological capital brought into school by students (H. Thomas, 2017).

To summarise this section, it has been argued that schools assist in reproducing social inequalities by not effectively addressing the gaps in students' social and cultural capital. Moreover, through the Pedagogic Device, the Pedagogic Discourse and the use of digital technology, one dominant group sees its discourse legitimised. This symbolic control brings to light inequalities experienced by some students, which may not be addressed or even increased by teachers and schools in general. According to Bernstein, the Pedagogic Discourse comprises three fields. Knowledge is created in the production field. Curriculum authorities who work within the recontextualisation field then choose which knowledge they think is valid. It is in the reproduction field, where they operate, that teachers and schools can translate the School's discourse and the new knowledge from the production field. Teachers can decipher the School's discourse by their choice of texts and activities but also by the way they provide effective feedback to their students. This study investigates how teachers can use feedback to support students' in enhancing their persuasive writing skills.

2.6.2 Bernsteinian concepts

So far, it has been proposed that schools reproduce social inequalities and that they may do so by ignoring or not building knowledge on the social and cultural capital some of their students bring to school and/ or by allowing students' Language be a barrier to their social and academic enhancement. Bernstein claims that since students from low SES might have not fully comprehend the elaborated code, they might find difficult to access the School's knowledge. Bernstein identifies three concepts, which may explain why some students access the School's knowledge while others are less likely to access it. These concepts are Classification, Framing, and vertical/ horizontal discourses. Further to these three concepts, it can be argued that digital technology can play a major role in

supporting students in accessing the School's knowledge. Lastly, this section presents the idea of recontextualisation tools.

2.6.2.1 Classification

Bernstein (2000, p. 6) defines classification as "relations between categories, whether these categories are between agencies, between agents, between discourses, between practices.[...] classification refers to a defining attribute not a category but of the relations between categories.". In other words, classification is the degree of insulation between categories. Classification can be the boundaries between the transmitter and the acquirer, for instance the teacher and the student, or between school subjects. For instance, classification between school subjects such as Chemistry and History are strong whereas boundaries between Chemistry and Physics are weaker (Moore, 2013; Young, 2008). In other words, it means that Chemistry and Physics are subjects sharing more similarities than Chemistry and History would. Another instance of Classification is the strong symbolic demarcation between School knowledge and "home" knowledge, or what Durkheim (2001) calls the sacred and the profane (Atkinson, 1985). Research suggests that students from low SES or ill-served backgrounds are more likely to experience strong Classification between the discourses they hear at home and those they hear at school (Moore, 2013; Morais, 2002). On the contrary, students from a more advantaged background are more likely to hear similar discourses at home and at school. In their case, the Classification between these two discourses can be qualified as weak and so these students are more likely to succeed since they experience two sites of knowledge acquisition whereas students from low SES know only one, the School (Morais, 2002). Muller (2008) argues that Classification is necessary to keep mental and manual labour distinct.

Classification is also found in the Instructional Discourse within the Pedagogic Discourse. Classification is the "voice" within an interaction and is responsible for the "organisation of knowledge" in the Pedagogic Discourse (Bernstein, 2000; Sadovnik, 1991). As it has been said previously, teachers may not have ample choice in what to teach (Ingram, 2016), in other words, the Classification of what is said to be valid knowledge is limited within Classification rules. Classification is thus related to the notion of power since the people who decide what is valid knowledge are in social power (Hoadley, 2006).

2.6.2.2 Framing

Whereas Classification is the voice, Framing is the message in the "interactional relation" and is concerned with the transmission of knowledge (Bernstein, 2000; Sadovnik, 2001). This interaction can be happening between a parent and a child, a teacher and a student or a doctor and a patient (Bernstein, 2000; H. Thomas, 2017). Any one voice can be transmitted through different modes of messages. That is, although teachers might have limited choice on what to teach, they have more freedom in how to teach (Bernstein & Solomon, 1999; Hay & Penney, 2013). Classification relates to power whereas Framing relates to control (Hoadley, 2006). Framing also relates to pacing, evaluation criteria and sequencing in Pedagogic Discourse (Willis et al., 2013). It is with alteration in the Framing that boundaries get moved and control may shift or even that inequality experienced at schools can be reduced (Gamble & Hoadley, 2010; Hoadley, 2006). For example, when the Framing is strong the teacher seems to be more in control, whereas when the Framing is weak the student may have more choice in how to learn (Willis et al., 2013). It does not mean, however, that in order to enhance students' learning, Framing always needs to be weak. For instance, strong Framing means that the evaluation criteria are made clear or explicit to the learners which may assist them in comprehending the School discourse (Morais & Neves, 2018). On the other hand, to achieve this, time is needed. Therefore, the Framing of pacing, or teacher control over the pace at which a student is expected to learn successfully, needs to be weakened (Morais, 2002). Barrett and Moore (2015) go further by arguing that strong Framing, such as ensuring that meanings are explicit to all, is primordial for students' learning.

Framing and Classification can differ freely one from each other and together they create a variation of the Pedagogic Discourse (Bernstein, 2000).

2.6.2.3 Vertical and horizontal discourses

Drawing from Durkheim's work, Bernstein (1999) suggests that there are two types of knowledge, which he calls vertical and horizontal discourses.

Horizontal discourse refers to what Durkheim (2001) claims to be mundane knowledge or everyday knowledge (Moore & Muller, 2002). This horizontal discourse is contexts specific and segmental (Bernstein, 1999; Wheelahan, 2005). When learning takes place within the horizontal discourse it is through imitation from those who have already mastered the task (Moore, 2013). Whereas horizontal discourse is unlikely to be transferable to other contexts (Bernstein & Solomon, 1999; Wheelahan, 2005), vertical

discourse may be transferable, since it is not culturally based but instead relates to "symbolic structures of explicit knowledge" (Bernstein, 2000, p. 160). When learning is taking place in the vertical discourse it is with the supervision of experts who can clearly articulate and explain the concepts taught (Moore, 2013). This powerful knowledge within the vertical discourse is more likely to be found in educational sites such as schools (Moore, 2013).

2.6.2.4 Recontextualisation tools

The process of recontextualisation is described by Bernstein (2000, p. 33) as a principle "which selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order". The recontextualisation process shifts the site of production of a discourse to another site (Singh, 2002). As seen in section 2.6.1.2, schools are primary agents in the recontextualisation process as they assist the selection, the relocation and the new focus of the discourse (Bernstein, 1971; Ingram, 2016; Singh, 2002). For instance, the process can help the refocus of the discourse experienced at home by the student to a School's discourse. In Pedagogic Discourse, teachers and schools can be seen as part of the recontextualisation process, as they translate the School's discourse. It is by altering the Classification and the Framing, that teachers can aid students in creating connections with the School's discourse. For instance, teachers could alter the Framing by providing audio feedback so LCC Poor students could comprehend the feedback. Digital technology can be seen as a recontextualisation tool as it can help teachers and students to provide and act upon feedback. Furthermore, it can be argued that exemplars, rubrics and assessment criteria can be said to be tools of recontextualisation if they are used consciously and purposefully by teachers in the process to support their students accessing the elaborated code.

2.6.2.5 Digital technology to modify School discourse

How technology can assist teachers and students in the provision of feedback was examined in section 2.4. The use of digital technology was particularly considered regarding how it supports the person providing feedback in ensuring it is timely, continuous, personalised, explicit and set against criteria, and dialogic. In this section, the emphasis is placed on how digital technology can support schools, teachers and students in ensuring *equitable* provision of feedback. Thus far, it has been argued that schools reproduce social inequalities through Language, discourses and structures which sustain the relations of power that are already in place. The question is: Can the use of digital

technology, when providing feedback, enhance students' learning, especially of those who come to school poorly prepared with a discourse dissimilar to the school's, or who are not supported by these structures in place, which insulate them further? In other words, can and does digital technology play a role in reproducing or interrupting social inequalities in our schools especially when it is used when providing feedback?

As demonstrated earlier, students enter school differently equipped regarding Language. Students from middle or high SES tend to be better equipped than those coming from a low SES or from disadvantaged backgrounds. It is arguable that the use of technology may alter both the Code, or discourse; students bring their own social and cultural capitals, and the School's Code to make it more accessible to those students who find it challenging to comprehend. Since technology can help a dialogic interaction to take place between the learner and the teacher (Brearley & Cullen, 2012; Dixon, 2011; Hepplestone et al., 2011; Looker & Naylor, 2010; Sweeney et al., 2017), it has the potential to allow the teacher to modify the School's discourse, to create a bridge between the School's Code and the one used in the student's family, or even for teachers to change their pedagogy depending on students' learning needs (Ingram, 2016; Selwyn, 2011; Singh, 2002). Technology offers opportunities which were unfeasible or unimaginable thus far (Volti, 1992 as mentioned in Selwyn, 2011). It does so by permitting meaning to be amply illustrated in the teacher-student dialogic interaction, which allows students with inadequate resources to understand the School's discourse (Mehan, 2008; Selwyn, 2011). Since classification and Framing boundaries can be shifted during interaction (Hoadley, 2006), digital technology can be another mediating device or tool, which teachers and students can use to increase what has been achieved thus far (Gee, 2008).

The concept of altering messages and pacing rules lies at the heart of Bernstein's theory regarding equitable access to powerful knowledge. Bernstein (2000) claims that by altering the Framing, the classification can in turn be altered and give students access to the elaborated code. He continues by stating that because some students require more time to comprehend the learning content, teachers can weaken the pacing rules, thus giving more time to students to create meaning. Digital technology allows both Framing and pacing rules to be altered, which may be more equitable opportunity for *all* students (Ingram, 2016).

Of all the characteristics which feedback needs to meet to be effective, being dialogic might be the most significant especially for students from low SES (Carnell, 2000; Ruiz-Primo, 2011; Steen-Utheim & Wittek, 2017). Indeed, it is during the interaction between the teacher, or the person generating the feedback, and the learner that learning happens and meaning is created (Carnell, 2000; Moreno, 2004). If digital technology assists feedback and this dialogic interaction (Brearley & Cullen, 2012; Dixon, 2011; Looker & Naylor, 2010; Sweeney et al., 2017), and if feedback assists students in creating learning and meaning (Hattie & Timperley, 2007; Yang & Carless, 2013), it can be argued that technology may level the playing field regarding equitable access to powerful knowledge by shifting boundaries. It is the alteration of Classification and Framing, which in turn allows students to comprehend the School's Code or discourse, that shifts the boundaries established by discourses (Bernstein, 2000).

In summary, even if schools reproduce socio inequalities, some tools which can mitigate this reproduction are available. The alteration of the Classification and the Framing, teachers supporting students in accessing the vertical discourse by decoding the School's discourse and finally the use of digital technology especially when providing feedback are all recontextualisation tools, which can reduce the socio inequalities experienced by some students.

In conclusion, section 2.6 briefly presented some Bernsteinian concepts to do with social inequalities, in particular those regarding how schools reproduce social inequalities. Firstly, it was argued that students from advantaged backgrounds are more likely to succeed in schools because they can understand and switch between restricted and elaborated codes whereas students from disadvantaged backgrounds are less likely to be familiar with the elaborated code. Furthermore, Bernstein argues that it is in the Pedagogic Device that educational knowledge is controlled and legitimised by educational institutions. Then, Pedagogic Discourse has been briefly presented. According to Bernstein, teachers retain their power over the students since teachers recontextualise the curriculum. To further explain why some students are less likely to succeed in school, Bernstein states that students from advantaged backgrounds experience a weak classification between the discourses from home and the School's discourse whereas students from more disadvantaged backgrounds experience a stronger classification. This can explain why LCC Poor students are more likely to find the School's discourse difficult to comprehend. Besides classification, Bernstein believes that

the alteration of the Framing can support students from disadvantaged background to better understand the School's discourse. Finally, it has been claimed in this section that recontextualisation tools might reduce socio inequalities experienced by some students. Indeed, the aid of digital technology may assist students to better comprehend the School's Code.

2.7 Chapter summary

This chapter reviewed the literature regarding how the use of an online collaborative writing platform such as Google Docs can create feedback as dialogue to support diverse middle school students' learning of the persuasive writing genre.

First, effective feedback was defined, then its delimitations, and the criteria it needs to meet were presented. Feedback is defined as the supporting information provided to and used by the student to close the gap in her learning, between what is already known and what needs to or could be learned next. To be effective, feedback needs to be descriptive, or non-judgemental, and meet several criteria. These are: feedback needs to be timely, to be given continuously, be personalised, be explicit, involve dialogue and be set against success criteria. It has been highlighted that despite the provision of feedback being singled out as being what students benefit the most from, providing learners with effective feedback does not always happen. It has been proposed that the use of digital technology might support the provision of feedback as it may help teachers and students to provide or be provided with timely, personalised, continuous, explicit, and dialogic feedback.

Bernsteinian concepts to do with social inequalities have also been presented. It has been argued that schools are a place which reproduces social inequalities since students coming from a more advantaged background tend to see their capital increase and their learning enhanced, whereas students from low SES or ill-served backgrounds do not experience great enhancement. Social and cultural capital, concepts offered by Bourdieu (2011), describe students' resources and are more difficult to quantify as they are less tangible than financial capital. According to Bourdieu, family capital is the best hidden form of hereditary transmission. Social capital refers to social connections, which assist in increasing already existing capital, and cultural capital concerns how someone looks and behaves, their school qualifications and what kinds of culturally rich objects they own. The definition of SES by Hurst, Gibbon, and Nurse (2016) has been adopted: "The measure of social class is multidimensional in that it mixes economics with social

dimensions of inequality. Consequently, this measure is often referred to as socioeconomic status SES" (p. 17).

Bernstein explains how schools reproduce social inequities by using, among other concepts, those of Codes, Classification, Framing and horizontal/vertical discourses. There are two types of codes, or systems of Language; the elaborated code and the restricted code. All students can use the restricted code, but only students from more advantaged background can use and comprehend the restricted which is the code used by schools to transmit knowledge. Another concept important to Bernstein to explain how schools reproduce social inequities is Classification. Classification refers to the boundaries experienced by individuals, for instance between School knowledge and home knowledge (Bernstein, 2000). Classification can be qualified as strong when there is a strong demarcation between School knowledge and home knowledge, and qualified as weak when this demarcation is less pronounced. Students from disadvantaged backgrounds are more likely to experience strong classification between home and school's discourse. As for Framing, it relates to lesson pacing, evaluation criteria and content sequencing. When the Framing is strong the teacher seems to be more in control, whereas when the Framing is weak the student may have more choice in how to learn. Drawing from Durkheim's work, Bernstein suggests that there are two types of knowledge, which he calls vertical and horizontal discourses. The recontextualisation process assists the selection, the relocation and the new focus of the discourse. For instance, it can help the refocus of the discourse experienced at home by the student to a school discourse. This section also mentioned that digital technology could be a recontextualisation tool, which may assist students to better comprehend the School's Code.

Chapter Three Methodology

In the education realm, there are two types of research: education research and educational research. Whereas educational research, necessary and essential if intellectual, social and well-being development are to be experienced by most students, aims to transform educational practices, education research's purpose is to only explain a situation or phenomenon (Burton, 2009). This inquiry aims to be educational. Hence, the aim of this chapter is to present and discuss the paradigm, the methodology as well as the methods used to conduct the educational research to address the following research question: How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive writing genre? The paradigm guiding the inquiry is first examined, then the methodology and methods employed, followed by some ethical considerations. In order to be consistent with previous chapters, feminine pronouns and possessive adjectives are used throughout this section.

3.1 Research paradigm

To be robust, research must follow a systematic framework from the development of an inquiry to data collection and analysis (G. J. Anderson & Arsenault, 1998; Bassey, 1999). Hence as soon as a question is posed, the research has already started. Then, the researcher's choice about the paradigm, the lens through which she not only sets up the research question and aim(s), but also chooses the methods used to gather and analyse data, underpins the whole research design.

Kuhn (1962) and Bassey (1999) define a paradigm as a set of beliefs about the world which scientists agree upon in order to conduct research. A paradigm is a worldview held by the researcher where her social position and her set of beliefs make sense of reality (Burton, 2009; Guba & Lincoln, 1994; Maykut & Morehouse, 1994; Taylor & Medina, 2013; Walter, 2013). A paradigm is a framework which supports and leads the research and the researcher in answering the research question (Maykut & Morehouse, 1994; Taylor & Medina, 2013).

Since the researcher's ontological inclination informs her epistemological disposition, which then instigates the methodology and the methods used in the inquiry (Cohen et al., 2000), it is important to follow her ontology position as a basis for her inquiry.

3.1.1 Ontology

Ontology is our representation of the world, our understanding of the place we believe is ours within it and more specifically if one is an internal or external actor to this world (Burton, 2009). In other words, ontology is the study of being or reality, *the what is* (Braun & Clarke, 2013b; Cohen et al., 2000; Creswell, 2007; Gray, 2009).

I believe that no matter how big or small a community is, each member plays an active role in the making of the world and its reality. That is, the member's actions shape the world, and how she sees herself is inseparable from this reality. I do not believe in a single reality but instead, I believe in an interconnected network of realities in which subjects and objects' relationships are intertwined and together create meaning (Gray, 2009; Maykut & Morehouse, 1994).

3.1.2 Epistemology

Whereas ontology is concerned with the *what is*, epistemology is interested in "*what it means to know*" (Gray, 2009, p. 17). Epistemology embodies not only the nature and origins of knowledge (Braun & Clarke, 2013b; Maykut & Morehouse, 1994), as the theory of knowledge (Walter, 2013), but also what is counted as legitimate knowledge (Braun & Clarke, 2013b; Burton, 2009). Epistemology guides the way that research is conducted (Curtis & Curtis, 2011) and the need for a researcher to reflect on her philosophical position regarding knowledge, in general, and its construction, more specifically.

3.1.3 Axiology

Thus far, my philosophical stance has been revealed through my ontological and epistemological inclinations. This philosophical reflection has been essential to uncover the methodology that was adopted. Through this, I believe in a multitude of realities, and that I am a full actor in the entire research process as I am also a subject in the social world. Therefore, I bring my own experiences and what makes me who I am, such as my socio-economic status, level of education, and my political views into the research context.

A researcher also brings a set of values, called an axiological assumption to the research process (Creswell, 2007; Walter, 2013). Closely related to ethics, axiology, from the Greek term "axia", refers to the study of values (Proudfoot, 2010). Every researcher brings their own set of values to doing research. These values impact on the research process, starting with the choice of research question (Walter, 2013). Since being value-neutral is impossible, or even not desired, in Social Sciences (Walter, 2013), a researcher reflecting on her values is essential to help her comprehend the meaning of the data. Furthermore, the Language used by the

researcher, when disseminating findings, indicates her set of values (Creswell, 2007). The critical paradigm, the paradigm guiding my research, stresses the significant role of the researcher's values; they are considered at the centre of the inquiry. As seen earlier, these values are usually ones that drive the researcher to identify a social problem or inequality as the motivation for an inquiry. Guba and Lincoln (1994) argue that not recognising the values a researcher brings can be detrimental to the powerless whom the research is designed to support.

Paternal orphan at birth, I have been raised my retired grandparents who had no other occupation but to look after me. I grew up in a loving and caring household where education took a central place since my grandparents were immigrants and saw the school as an opportunity to democratically flourish. I think it is important to add here that my grand-mother was socialist, and my grand-father was a member of the communist party. This remark is not trivial, as this early environment shaped me and shaped my vision of the world and concern with social justice. Furthermore, I can still hear my grand-mother's wise words regarding education being the key to freedom, and I truly believe that these words have influenced my educational stance and my research methodology during this investigation.

3.1.4 Methodology

As it has been suggested previously, the research paradigm and its ontological and epistemological orientation inform the choice in methodology, or conceptual frame (Walter, 2013) which in turn leads to preferred methods (Crotty, 1998). A methodology is a framework which supports the researcher in making decisions regarding *how* the research will be conducted (Braun & Clarke, 2013b). It encompasses the researcher's ontological and epistemological assumptions (Walter, 2013). A methodology aims to illustrate and justify the research process itself (Cohen et al., 2000). The choice of methodology informs the researcher regarding which methods of data collection will be best suited to answer the research question.

3.1.4.1 Critical paradigm

As stated earlier, this research was conducted through a critical lens. Whereas other paradigms attempt to interpret and describe the world, the critical paradigm aims to describe the society believed to be based on social inequality, and to transform it through dialogic interactions (Cohen et al., 2000). Dialogic interactions can happen between the researcher and the participants or only between the participants. During these interactions, limited or lack of knowledge is replaced with more informed comprehension (Guba & Lincoln, 1994). Since the researcher is a participant in the critical paradigm, her voice is heard as that of a facilitator who

orchestrates the participants' discourse. However, since the critical researcher aims to alter practices through a transformative discourse supporting participants in understanding the wrongs of the situation and how to remediate it, she needs to be well informed and to share knowledge about the social situation and how to alter it with the participants (Guba & Lincoln, 1994). Because of her role as a participant and a facilitator, the researcher needs to be constantly aware of the tensions in power that she can yield within the research process and on the participants (Creswell, 2007).

A transformative paradigm, such as the critical paradigm (Mackenzie & Knipe, 2006), requires the use of a methodology which will bring about changes in teaching practice through an action or intervention (Cohen et al., 2000). It was important for me in my research to co-create. with the participating teachers, a better learning experience for students who were not achieving to their full potential. I did not want my research to depict only what was already happening in a class; rather I wanted to transform students' learning experiences in some way by altering teachers' practice. This intervention was not intended to be done *on* participants but *with* them to enable them to be empowered and emancipated (Scotland, 2012). I believe that a design-based research approach was appropriate for this approach and it is explained next.

3.1.4.2 Design-based research

A design-based research aims to evaluate an investigation in education and deepen the understanding of some tools or learning theories which could enhance students' learning by creating a bridge between education and practice (Kennedy-Clark, 2013). Design-based research is concerned not only with the "what" that can be improved in teaching but also with the "how" (McKenney & Reeves, 2012). Therefore, a design-based research is divided into three phases: the first builds a clear picture of the research context; the second relates to the intervention itself; and, the last phase is about assessing the whole intervention (Kennedy-Clark, 2013).

According to T. Anderson and Shattuck (2012), a design-based research needs to:

- (i) take place in a real educational context so it can be valid
- (ii) implement an intervention where the researcher and the practitioners are involved together
- (iii) use mixed methods to gather data
- (iv) experience several cycles of the intervention to intent for the research to be as perfect as possible

(v) witness a collaboration between the researcher and the practitioners where each protagonist brings their own strengths.

The teachers in this study and I co-constructed a two-cycle design-based intervention and adopted mixed methods to collect data to address the research question.

To sum up, the philosophical stance I adopted for my research has been identified in this section. I have reflected on my own assumptions regarding ontology and epistemology. This reflection was necessary to inform decisions about the appropriate methodology to answer the research question. The research I engaged in aimed to answer the question "How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive writing genre?" and is situated in a critical paradigm. The design-based research intervention approach was adopted to underpin the study design and data collection methods.

3.2 The participants

In this research, convenience sampling (Gray, 2009) was adopted based on my personal contacts and intention to conduct the research in a middle school context with two teachers who were teaching persuasive writing. An advantage for using a non-random selection process is the increased likelihood of rich data being collected. Participants chosen according to the phenomenon studied tend to be genuinely interested in it and are more likely to share and bring more productive ideas to the conversations (Sargeant, 2012).

I made informal contact with the principal from a local middle school who agreed for his school to participate in this research. The school, situated in a somewhat socio-economical advantaged mid-sized town (roughly 20 000 inhabitants), is a co-educational institution with a roll of approximately 700 students. Students can attend this school from Year 7 to Year 10 (Year 9 and 10 being generally part of high school or college in New Zealand). In 2018, the school roll counted primarily Pakeha students (about 79%). The school's strategic goals at that time focused on improving learning and engagement for all students, particularly Māori and boys. It is a non-composite school, which means that Year 7 and Year 8 are taught in separate classes, in other words both years are not combined.

The two teachers agreed to collaborate with me and each other to co-construct understanding and strategies regarding the provision of feedback using an online writing platform in their respective classes. Both teachers were second year teachers and had started teaching at this

school the year before. Although each teacher had their own class, they taught in the same space. The school could be said to be quite regular regarding its teaching space, except this huge classroom which could welcome the two classes with a total of 63 students. Despite students belonging to a specific class, all 63 students were often taught together. Teachers created groups according to students' abilities or learning needs instead of putting students into groups according to their respective class.

I asked the teachers to identify up to three students who had achieved above the standard in writing, three students working at the standard and three students working below the standard. In New Zealand, students are expected to be achieving at a certain level, or National Standard. Based on the New Zealand Curriculum, National Standards in New Zealand ended at the end of 2017 after being in place for seven years. However, the school maintained the standards in 2018 when this study took place (for more details see the next chapter). Briefly, Year 7 and 8 students in New Zealand are expected to write at level 4 of the curriculum (the curriculum has eight levels in total). The main difference between the years is that the Year 8 students are expected to have "increased accuracy and fluency in writing a variety of texts across the curriculum, their level of control and independence in selecting writing processes and strategies, and the range of texts they write" (Ministry of Education, 2009).

Altogether ten students were selected as the target students for the research investigation. All students were in Year 8 (last year of middle school in New Zealand). Krishna, Mimi and Becca were working above the standard whereas Fahrid, Aïsha, Zoya and Ahmed were working below the standard. The final three Vincent, Salim and Nettie were working at the expected standard (all students' names are pseudonyms).

3.3 Research methods

In previous sections, it has been mentioned that ontology informs epistemology, which in turn leads to the choice of methodology which influences the research methods used. This section examines how the study data were collected and analysed, and outlines strategies to enhance the quality of the research and maintain ethical etiquette conduct.

3.3.1 Data collection

Data collection is an important phase in research since without careful planning a study may not obtain good quality data. The methods used to gather data are explored in this section.

3.3.1.1 Phases of the study

This study had four phases: baseline, first cycle of intervention, second cycle and an overall evaluation.

1. Phase One: Baseline

The baseline phase aimed to obtain a clear picture of what was currently happening regarding participating teachers and students' understanding and use of feedback, as well as their digital technology proficiency.

In this phase the two participating teachers took part in an individual semi-structured interview (30th May-Term 2) during which I asked them questions regarding their understanding and use of formative feedback, and their proficiency regarding the use of an online writing platform. All interviews occurring during the entire investigation were audio recorded. Teachers were asked to share their current writing lesson plans. Their writing lesson plans were requested throughout the whole study to understand the intended place, the use and the frequency of feedback in their lessons. I also collected their mark books during the entire length of the study to observe any shifts in students' grades.

2. Phase Two: First cycle of intervention

This phase commenced with an intervention workshop (5th June-Term 2). It took the form of a professional development workshop regarding feedback with a focus on the affordances of an online collaborative writing platform, which the teachers have access to and intended to use for the purpose of the study. During this workshop, the teachers and I:

- Co-constructed what counts as effective feedback and explored the potential affordances of online collaborative writing platforms. Decisions about which platform to use were explored in this phase, in this case Google Docs.
- Developed the success criteria and a rubric for assessing quality persuasive writing and quality feedback.
- Planned lessons together

The workshop was followed by three classroom observations focused on how teachers enacted the feedback processes that had been pre-planned. During this phase, teachers were asked to supply documents such as the digital feedback they provided their students and their graded mark books.

All students completed a lesson exit survey (paper-based) on the 5th July (Term 2) regarding their views of the feedback provided digitally and in hard copy and their comments on what they acted on and why. Target students' work samples were also collected.

A post-intervention discussion was held on the 19th July (during the school holidays) with the two teachers during which initial findings were explored and reflected on. A summary of students' exit surveys were shared with the teachers and used to inform their planning for the next phase.

3. Phase Three: Second cycle of intervention

Phase Three was a repeat of Phase Two without the intervention workshop. Changes were made based on the analysis and reflections from Phase Two (from the 20th August-Term 3).

4. Phase Four: Overall evaluation

During this phase, the teachers participated in a joint interview to reflect on their overall teaching experience (24th October-Term 4).

All students completed an online end-of-study survey regarding their views on the value of digitally provided feedback. The 10 target students participated in a focus group interview regarding the integration of Google Docs to provide feedback as dialogue. In order to better manage the discussions and transcription of the interviews, the target student group was divided in half; two interviews with five students in each (students were from both classes). These interviews took place on the same day, one after the other.

3.3.1.2 The data generation methods explained

A mixed methods approach is central to design-based research. When mixed methods are used, both quantitative and qualitative are generated. Quantitative data comprises numbers and allows for statistical analysis, whereas qualitative data comprises interviews, drawings and so on and creates a basis for "thick descriptions", using words co-created by the participants and the researcher (Braun & Clarke, 2013b; Gray, 2009). Although Denzin, Lincoln, and Giardina (2006) argue that a qualitative method is the most adequate to support investigations concerning social justice, Onwuegbuzie (2002) holds the view that mixed methods may be best by bringing together the best of both methods.

I agree with B. Johnson and Onwuegbuzie (2004) when they assert that mixed methods "draw strengths and minimize the weaknesses of both in single research" (p. 14-15), since quantitative data supports the researcher to create generalisations using links between variables, while

qualitative data helps her to explain the reasons of the phenomenon (Walter, 2013). Furthermore, using several methods allows for triangulation to take place. Triangulation is the use of several methods to determine if the findings of each method corroborate each other (Gall, Gall, & Borg, 2007). If data from different kinds of methods corroborate the same findings, these findings are more likely to be trustworthy (Gray, 2009; Onwuegbuzie, 2002). Therefore, in this particular inquiry, mixed methods were used to collect data through semi-structured interviews, surveys, focus group, class observations, documents such as teachers' mark books and students' work samples.

3.3.1.2.1 Semi-structured interviews

There are different kinds of interviews, such as structured, semi-structured or unstructured interviews (Denscombe, 2007). On one end of the interview spectrum is found structured interviews, similar to a questionnaire, where the questions are predetermined. At the other end of the continuum, is the unstructured interview. During this type of interview, the researcher's role is to be as little disruptive as possible. In general, the researcher starts the interview by presenting a theme and lets the participants speak freely. When conducting semi-structured interviews, the researcher writes beforehand a set of questions for the participants to answer. However, the flexibility of semi-structured interviews allows her to ask the participants to elaborate on some aspects of their answers (Walter, 2013). In other words, the researcher is not limited by the list of questions prepared prior to the interviews but uses them as a starter for conversation. This gives the participants an opportunity to have their voice heard since they can express what they believe to be of significance (Braun & Clarke, 2013b). Further, within an interview, participants are more likely to be willing to speak about something that is dear to them than they are when surveyed (Gray, 2009). Interviews have both advantages and disadvantages which need to be attended.

The advantages of interviews:

Interviewing brings remarkable benefits such as the richness of the data which quantitative methods may not be able to obtain, or the flexibility allowing the researcher to ask probing questions which she feels may enhance the quality of the data (Braun & Clarke, 2013b). This power the researcher holds on the way interviews can be conducted is a huge advantage, regarding, for instance, the richness of the data, but may be dangerous as her opinions and values may overshadow those of the participants (Braun & Clarke, 2013b). Hence the

researcher needs to ensure that her voice is not the only one heard and that she does not push participants to say what she wants to hear.

The disadvantages of interviews:

First, interviewing is a difficult task as it is more than asking and recording answers. The researcher needs to listen attentively to what participants express about their opinions, values and descriptions of realities in order to be able to judge what is important to ask them to extend with explanations (Walter, 2013). Another major disadvantage is how time-consuming interviewing can be since it needs preparation prior to conducting the interview. It can also be difficult to gauge how long interviews may last. Besides, transcribing is a tedious task and finally analysing qualitative data, unlike quantitative, can be laborious (Braun & Clarke, 2013b; Gray, 2009). Furthermore, most of the time the size of the sample doing interviews is small which may not fully represent the opinions of a wider population (Braun & Clarke, 2013b).

In this study, semi-structured interviews were used since they allowed me to prepare in advance questions I was interested in but also gave me the possibility to probe the participants regarding some issues that may arise during the interviews. Teachers were interviewed during Phase One, after having provided students with audio feedback and again during Phase Four. As for the students, I interviewed them during Phase One and after they received audio feedback. I interviewed the students in focus groups during Phase Four. It was easier for transcribing purposes to split the target students in two groups.

3.3.1.2.2 Surveys

Widely used to collect empirical data on a big scale, a survey is a set of questions that all participants are asked to answer (Denscombe, 2007; Walter, 2013). Surveys allow the researcher to collect a large amount of data on potentially varied topics, which would be too time-consuming to gather through other methods. Surveys aim to create a clear picture of a population at one point in time (Denscombe, 2007; Gray, 2009).

Advantages of surveys:

In the case of this research, surveys help determine if the intervention regarding the use of an online collaborative writing platform has had any impact in assisting teacher provision of feedback as dialogue and in enhancing students' learning of the persuasive writing genre.

Another significant advantage is the presentation of the empirical data which can be displayed statistically. This allows the researcher to compare and contrast data easily within her own

research but also with other inquiries (Burton, 2009). Furthermore, providing easily readable and objective statistics permits secondary data analysis (Walter, 2013) as other researchers can use the quantitative data to verify if the findings are correct.

Disadvantages of surveys:

Despite significant benefits, surveys also present disadvantages. If a researcher decides to distribute paper surveys, some disadvantages can be experienced such as a pecuniary cost as well as time. Indeed, the researcher has to enter the results of each survey manually into software to extract any analytic statistics.

Another disadvantage can be the difficulty in writing the questions (Burton, 2009). If the questions are ambiguous or incomprehensible, it may be hard for participants to answer or, if they answer, for the data to be valid.

A third disadvantage is that a survey is the capture of a population at one given time and not an explanation of a phenomenon due mainly to the fact that a survey rarely allows participants to further explain their answers (Burton, 2009; Walter, 2013). Another weakness is that surveys aim to find links between variables but they cannot ensure which one is the cause of the other (Walter, 2013).

Finally, since the researcher creates the questions, her position is dominant over the participants'. Despite the possibility for the researcher to add open-ended questions, participants might feel pressured to answer questions about phenomena they do not value as important, or they may feel they are not given the opportunity to delve into a topic they consider significant (Burton, 2009).

In this study, both paper-based and online surveys were used. Online surveys present major advantages such as lowering the risks of errors when entering data, the ease of data storage and the low cost since surveys do not need to be printed (Nayak & Narayan, 2019; Ward, Clark, Zabriskie, & Morris, 2012). Online surveys also eased the reading of some students' illegible handwriting. However, I felt that asking students to fill in a paper-based exit survey at the end of some lessons was a quicker way for them to answer the questions since they did not need to fetch a computer, log in and fill in the survey.

3.3.1.2.3 Documents

Gathering documents is an usual means of data collection and is less disruptive since the researcher is not exerting any influential power on those documents (Gray, 2009). However,

there can be challenges in gaining access to some kinds of documents. Documents can be written, visual or audio in form (Denscombe, 2007).

Advantages of using documents:

Official documents can be used to corroborate other data through triangulation (Denscombe, 2007). Furthermore, documents collected over time can show how a phenomenon has changed (Burton, 2009).

Disadvantages of using documents:

If documents only were used for this research, they would not have entirely explained the phenomenon since only one side of the reality participants are willing to share can be examined (Burton, 2009). Another significant disadvantage is the authenticity of these documents. A researcher using documents as a secondary source of data needs to be vigilant regarding their authenticity and ask herself if they had been altered for any reason (Burton, 2009). On the other hand, using documents in conjunction with interviews, surveys and observations can help ensure the research is more robust (Adler & Clark, 2015).

In this study, I collected several kinds of documents: teacher mark books, lesson plans, student work samples, digital feedback to students and meeting notes. Throughout the investigation, the two participating teachers were asked to provide their mark books to assess to what extent the intervention had any impact on students' writing achievement. Additionally, to observe if any shifts in lesson planning regarding the provision of feedback and the use of an online collaborative writing platform when providing feedback have occurred, lesson plans were collected during the study. To observe any shifts in the students' production of persuasive writing, work samples of the target students were collected. These samples also helped the teachers to reflect at the end of each phase. A copy of the feedback teachers had digitally provided was also collected to assess if any changes had taken place in the quality of teachers' feedback. The type of feedback, such as audio or written-based that teachers provided was also observed. During meetings with teachers, I took notes to document key points raised by each participant and document any issues that occurred.

3.3.1.2.4 Observations

Although interviews can produce ample and rich data, participants may, unconsciously, be prone to distort reports of what they do to a certain extent. The triangulation of data through observations can play a significant role in mitigating this issue (Gall et al., 2007). Observing

classes being taught in real settings can provide the researcher with rich data on teacher-students and student-student interactions. Observational data can be collected using field notes, photographs, and or written recollections of what has been seen (Denscombe, 2007; Gall et al., 2007).

According to Gall et al. (2007), there are two types of observations: reactive and non-reactive. Whereas during non-reactive observations, participants are unaware that they are observed, in reactive observations they are informed by the researcher regarding the observations. This knowledge of being observed may be a disadvantage since teachers and students may change their behaviour during the observations (Gall et al., 2007; Yin, 2014). However, if an observation schedule is created and systematic recurrent observations take place over a substantial period of time, teachers and students may feel more comfortable by being observed and may be less likely to alter their behaviour (Denscombe, 2007; Gall et al., 2007).

Gall et al. (2007) observe there are three stages in the observation process: descriptive, focused and selective stages. During the first stage, the researcher observes everything in the study context. Then, she identifies what she wants to focus on during her observations. Finally, the last stage allows the researcher to delve into some details which she desires to fully comprehend. This progression and the extended time-frame during which observations take place, permit the researcher to reframe her questions and focus of the inquiry accordingly to address the research question.

During Phase Two and Phase Three, I observed each teacher teaching their class and took field notes in three sessions. During each session, which had been collaboratively planned by the teachers and scheduled for a visit, students were given the opportunity to amend their work according to the feedback they had previously received from their teachers. Teachers provided feedback to students' writing through Google Docs. I noted anything that seemed significant during these observations. At the end of each observed session, students completed an exit survey regarding the feedback they had received. I quickly analysed the data generated from these surveys and shared the key points with the teachers. These key points guided our next steps, such as the kinds of feedback to be provided next, or what the focus of my observation should be for the next session.

3.3.2 Data analysis

Before data analysis commenced, it was essential for me to thoroughly familiarise myself with all text-based data by reading through it numerous times (Braun & Clarke, 2013b). Only then,

could the process of coding, defined as "the process by which data are organised for analysis" (Walter, 2013, p. 324) or as "the assigning of observations to categories" commence (Adler & Clark, 2015, p. 135). Since the research comprises quantitative and qualitative methods, coding for each method is examined next.

3.3.2.1 Quantitative data

The first step a researcher needs to take when analysing quantitative data is to clean it by ensuring that data is entered correctly in an analytical software package. To ensure that this is done correctly, two researchers may enter data (Gray, 2009). Then, a numerical identification is designated to all non-numerical data, i.e. word answers, so it can be analysed in a quantitative manner (Cohen et al., 2000; Denscombe, 2007; Gray, 2009). This procedure allows the researcher to be able to group data and seek connections (Denscombe, 2007). It is important to note that, unlike qualitative data, quantitative data's coding starts prior to the data collection.

In this study, student participants were asked to complete surveys after each class observation and at the end of the investigation. The data generated was analysed using Excel to obtain descriptive statistics of participants' views and to track shifts in these views at the end of the study.

3.3.2.2 Qualitative data

To analyse qualitative data, I used the deductive logic approach, which means that my analysis started with a general idea and I tried to find evidence to confirm or contradict the idea (C. Mutch, 2013). For example, I used the literature review's key themes on effective feedback, as general guiding ideas to analyse the data. To conduct a thematic analysis, I needed to code the data to sort it in each theme previously identified by the literature review. It is important to note that although the majority of themes were extracted from the literature review, new themes became apparent during the coding process.

The analysis of data through coding was conducted according to the steps below. The guidelines offered by Braun and Clarke (2013b), and Gray (2009), were used to guide the process of analysis. Before enumerating and describing each step, it is essential to note that data collection and coding are not necessarily sequential. Indeed, coding and collecting may happen simultaneously or through a pattern such as collecting-coding-collecting.

The first step of the coding protocol is to transcribe the interviews. These had been digitally audio recorded. This procedure supports the second step of the protocol which was to familiarise myself with the transcripts. The third step is the coding process. For this, I read the

transcripts attentively, highlighted key words and started categorising key phrases/ words. I used NVivo to assist me with this. The fourth step is to seek emerging themes, patterns of ideas or concepts within the codes (Walter, 2013). Finding themes is done by amending and categorising codes. For this process I read the categories and their key phrases back and forth and tried to see if some categories shared some kind of similarities. I also looked attentively if the characteristics of effective feedback were mentioned in the interviews and categorised them. When reviewing themes, the fifth step of the protocol, I tried to find any similar themes to see if a story faithful to the data had started to appear. The sixth step was where I defined and named the themes. This procedure supported me in generating a theory. Finally, the last step was the writing up of the data analysis when I put everything together to "tell the reader a coherent and persuasive story about the data, and contextualising it in relation to existing literature" (Braun & Clarke, 2013b, p. 4). I used this protocol for the analysis of the individual semi-structured interviews with teachers and the students' focus group interviews.

3.3.2.3 Document analysis

As mentioned earlier, documents, such as mark books, lesson plans, observations notes, students' work samples, meeting notes, and feedback that teachers had been digitally recording were collected. Since all these documents were text-based, they were analysed following the same process. Each document presented a different meaning according to the author and the reader (Gall et al., 2007). It was therefore important I kept this in mind when analysing the data generated by those texts as I was aiming to create a trustworthy story. Although, as stated earlier, my voice was heard, I needed to ensure that the other participants' voices were equally heard and respected. Using these documents, I conducted a thematic analysis of each document to interpret the story the authors were bringing to the study through these written documents (Gall et al., 2007). This analysis served to corroborate and triangulate the analysis of data from interviews and surveys.

Documents were analysed through deductive logic. The themes used were mainly extracted from the literature review, although some emerged directly from the data. I then looked for evidence in the collected data. Each type of document presented evidence for specific themes or several ones. For instance, lesson plans or class observations were highlighted for one theme or several.

To recapitulate, I analysed quantitative data using descriptive statistics and qualitative data using thematic analysis, during which codes and themes emerge to tell *the* story rising from the data to address the research question.

3.3.3 Ensuring the quality of research

The quality of any research is a concern from the moment the inquiry is being designed when the researcher reflects on her ontological and epistemological positions, which inform the research methodology, until the final write-up and presentation of findings. If the research is inclined towards a critical approach, the successful criterion for qualitative research is trustworthiness (Creswell, 2007). This section defines trustworthiness and presents ways a qualitative researcher may be able to ensure the trustworthiness of her research.

Prior to attempting to define trustworthiness, it is important to note that despite using quantitative methods to collect data, such as surveys, this inquiry takes place within a critical paradigm. Therefore, this section only explores the standards qualitative research ought to meet. Although the literature has coined a range of terms to describe these standards (Creswell, 2007), the terms used by Lincoln and Guba (1985) - credibility, transferability, dependability, and confirmability- are endorsed in this paper. Trustworthiness encompasses all these terms.

3.3.3.1 Trustworthiness

For qualitative research to be robust, it needs to be trustworthy. The concept of trustworthiness, encompasses credibility, transferability, dependability, and confirmability (Creswell, 2007; Lincoln & Guba, 1985). For credibility the researcher ensures that her research is appropriate, believable and that the findings drawn from the research are a true reflection of the data. Transferability refers to what extent the research's findings and methods can be applied to the contexts. If all the findings and data collected are clearly and accurately presented, then the research can be said to be dependable. Finally, conformability refers to the fact that interpretations from the data collected have not been manipulated by the researcher.

3.3.3.2 Means to ensure trustworthiness

Lincoln and Guba (1985) suggest some strategies that a qualitative researcher can take to enhance a study's trustworthiness. A prolonged engagement with the community where the research takes place, in other words planning research over a significant period of time, allows the researcher to get to know the participants and the setting of the research thoroughly so the data analysis and the findings can as faithfully as possible represent them. To support the researcher in determining the most pertinent issues to investigate, persistent observation needs

to occur. I believe I was involved with the teachers and the students in this investigation long enough for all the parties to have trust in me. Students were comfortable to ask me questions during my observations and sometimes showed me their work without me asking. The teachers seemed also comfortable with me observing them and never mentioned any embarrassment in having me in the room while they were teaching. Providing rich descriptions can help ensure the transferability of the research. Participants can be invited to audit the data and the findings to check if their voices have been heard. The participants were asked on several occasions if they wanted to read the findings, but they declined. The validation of the analysis may be promoted through triangulation, which can be done by using different sources, different methods of data collection and the use of a team of researchers. The researcher may also ask a colleague, who is not involved at any level of the research, to check if the findings are credible. Her supervisors can play the role of colleagues who can check if the data analysis had been conducted correctly. Both of my supervisors meticulously read my data and my findings' analysis. Finally, another means of ensuring trustworthiness of the research is for the researcher to show reflexivity (Patton, 2015).

Reflexivity, working on "the self", is a systematic and in-depth reflection the researcher conducts to become aware of her impact on and of her power within the research (Patton, 2015; Walter, 2013). At the start of an inquiry, the researcher needs to ask herself about her ontological and epistemological assumptions. Reflexivity is the equivalent of this step. At the later stages in the research, reflexivity mainly takes place during data collection and analysis when the researcher contemplates her political, social, and cultural assumptions, which funnel and influence the data she attends to and the interpretations she makes. A reflexivity diary may be kept during the entire research process to assist the researcher in staying reflexive and being constantly aware of her power within the research (Walter, 2013). At the time of the investigation, I had long commutes to and from work which allowed me to reflect at length on my research process. I have found this time very valuable and was able to jot down ideas and reflections as soon as I arrived home.

I am quite confident I followed these strategies to ensure credibility, transferability, dependability, and confirmability were fulfilled through prolonged engagement, persistent observations, audit trails of the data, triangulation and researcher reflexivity.

3.4 Ethical considerations

This last section considers ethical issues relevant to the research.

The term ethics comes from *êthos* in Greek, meaning "moral nature", which gave the word *ēthikós*, translatable as "morals". One can find the root of these terms in the English word "etiquette', the way someone is expected to behave in society. In the context we are interested in, ethical considerations refer to principles guiding research involving living beings, such as humans and animals, and ensuring this research neither harms the participants nor the researcher (Walter, 2013). The two elements of ethics - procedural ethics and ethics in practice-offered by Guillemin and Gillam (2004) were adopted and informed the researcher's views on ethics.

3.4.1 Procedural ethics

Conducting research in an ethical manner ensures that when the research takes place, no physical or emotional harm is inflicted to anybody involved in the research process, from the participants to the researcher. It is also important that steps are put in place to try to protect the confidentiality of the participants even though it can never be guaranteed. All participants in the research need to be informed about the research's intents and their consent sought.

The two elements of ethics- procedural ethics and ethics in practice- offered by Guillemin and Gillam (2004) were adopted and informed the researcher's views on ethics. Procedural ethics were put in place to protect the participants and the researcher, institutional ethics committees have a duty to oversee what issues the researcher anticipates could arise during their inquiry and has thought through actions that could be put in place to mitigate these issues. This reflection happens before the data collection starts and before the researcher meets the participants. This present study gained consent to conduct the study from the Human Research Ethics Committee from the University of Waikato.

The ethical principles guiding this research are explained next.

3.4.1.1 The principle of beneficence

Beneficence is about spreading good around us and ensuring benefits from the study and considering who will benefit from it (Keller & Lee, 2003). For the researcher to obey this principle, she needs to take every action to ensure not only her research benefits others but also that no harm is inflicted on any participants (Burton, 2009). When designing, conducting and disseminating the research findings, she needs to ensure that no physical and or harm comes to participants. It is therefore essential for the researcher to regularly reflect on her intentions and if any of her actions can harm anybody. For example, Gray (2009) mentions that ridiculing participants or causing them stress is also harming them. Furthermore, he suggests that when

participants give their views about their working site, they could be harmed if their identity can be discovered and therefore, the researcher needs to ensure that participants stay anonymous.

Guillemin and Gillam (2004) argue that asking the ethics committee to review if the researcher has thoroughly reflected on the ethical behaviour she ought to display, is only a "check list" and is "imposed" on the qualitative researcher to assess if she is competent (p. 263). The authors go further by arguing that once the ethics committee has validated the research, it no longer has any authority over the way the researcher actually behaves. They believe that it is during the research per se that a researcher demonstrates her competency. Furthermore, Guillemin and Gillam (2004) claim that by being reflexive, a qualitative researcher is better prepared when faced with ethical dilemmas since she is aware of and reflects on the possible tensions that can arise, and her own influence on the research and the participants. During the entire research process, I displayed ethical behaviour from the moment I designed the inquiry to after the findings had been disseminated. I am confident that the participants have not been exposed to any harm during this investigation; I have met them on several occasions and they are always happy to reminisce about our time together.

3.4.1.2 Confidentiality

For participants to stay anonymous, the researcher can take several measures. First, all names can be replaced by a code or a pseudonym (Gall et al., 2007). However, this precaution is not enough if too many details are given about the participants, such as their age, the research site and how long they have been working there or even their gender. Through this, readers might easily identify participants (Burton, 2009). Therefore, a design-based researcher faces a dilemma: on the one hand, she needs to give a thick description of the participants and the research site for the inquiry to be credible (Braun & Clarke, 2013a; Gray, 2009), but on the other hand she has to protect the anonymity of the participants. I have to admit that I have found this dichotomy quite challenging. It was quite difficult to give enough details about the school and its participants so the research could be helpful to other researchers but not so much that the participants could be recognised. Secondly, the researcher needs to store all data in a safe place, such as a locked cabinet and let the participants know who will have access to the data (Gall et al., 2007). This is what I have done. All documents are safe placed in a locked cabinet. However, the researcher needs to be honest and inform participants that despite all her efforts, anonymity cannot be guaranteed (Braun & Clarke, 2013b).

3.4.1.3 Informed consents

As previously mentioned, the researcher must endeavour to protect participants from any harm, emotional or physical. To support participants in protecting themselves, the researcher needs to honestly inform them regarding the implications in the entire research process using a language everyone involved can thoroughly comprehend (Gray, 2009; Walter, 2013). The consent form participants are asked to sign has to provide sufficient information for them to be fully informed, such as, but not limited to, the aims of the research, how much time participants will need to offer and what the researcher is going to do to protect their anonymity. Above all, participants need to be aware that their participation is voluntary, that they can opt out and they can refuse to answer questions during interviews (Adler & Clark, 2015; Gray, 2009; Walter, 2013).

Although considering ethics may seem a tedious task to a researcher, it is a useful one to do when designing the research since it prepares her to anticipate issues which could arise and allows her to reflect on her position of power vis à vis the participants.

In summary, conducting mixed methods research brings some ethical challenges a researcher needs to face. If she is to be successful in tackling these challenges, she needs to thoroughly consider her ethical behaviour during the whole research process since it will better prepare her when confronted by ethical issues on the field and ensure the research is of benefit to participants and generates robust new knowledge.

3.5 Chapter summary

The aim of this chapter was to present and discuss the research paradigm as well as the methods used to address the research question: How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive genre? To thoroughly scope the research design, the paradigm guiding the inquiry was first examined, followed by the choice in methodology, the selection of participants, then the methods employed during the data gathering were detailed. Next, the data analysis process I used was described as well as how I acted to ensure the quality of research. Finally, ethical considerations were explored.

Chapter Four Research Findings

This chapter presents the findings of the research. This investigation involved four phases: (i) Phase One: Baseline, during which I sought to gain a clear idea of where the teachers were regarding their self-efficacy in providing feedback and in using digital technology; (ii) Phase Two: Cycle 1 of the intervention during which students wrote a piece of persuasive writing and received feedback to enhance their work; (ii) Phase Three: Cycle 2 of the intervention during which students wrote a second piece of persuasive writing while still receiving regular feedback; (iv) Phase Four: Evaluation of the intervention during which teachers and students evaluated the whole investigation. The four phases of the research are chronologically presented in this chapter.

In reading the findings it is important to note here that the school was using the Google Suite. Therefore, the teachers and students were already using Google Docs for their writing pieces.

4.1 Phase One: Baseline

The first phase of the investigation aimed at obtaining a clear picture of what was currently happening regarding teachers' understanding and use of feedback. I also wanted to assess their self-efficacy for the use of digital technology in general, and of an online collaborative writing platform (Google Docs) in particular. In this phase, both teachers took part in an individual semi-structured interview. This interview was recorded, transcribed and thematically analysed. This section presents the findings of the interviews in relation to the use of digital technology and feedback.

4.1.1 The use of digital technology

During the first interview, teachers expressed their views regarding the use of digital technology in general. Firstly, teachers commented on their efficacy in using digital technology in and out of their classroom, then they mentioned professional development workshops they had attended. Thirdly, they identified themselves as colleagues, and lastly, they offered views about the disadvantages and benefits of using digital technology.

4.1.1.1 Teachers' self-efficacy in using digital technology

The two teachers taking part in this research felt differently regarding digital technology. Teacher A mentioned that she was "pretty confident" with using digital technology. She explained:

I grew up with all the technology coming out. Being around it. I have quite a reasonable nick on how to figure out things.

She also stated that she was "happy to try new things", and to use trial and error to find out how to use a particular piece of software:

I think because I am quite comfortable to give things a go. I AM QUITE [emphasised by tone during recording] happy to sit and play around, and if I don't know how to, I'd sit around and trial it and play around and click buttons.

On the contrary, Teacher B did not believe she was "super confident" but "it's definitely something I am working on". She elaborated, "in my own personal life I don't really use digital technology so anything I do in the classroom is new... so therefore I am not confident in using it in the class, but I try to".

Despite this difference in their confidence in using digital technology, both teachers had joined the project because they wanted to make use of digital technology in their teaching practice. For Teacher B, it was a goal "to use as much ICT as possible to how I feel comfortable and confident."

4.1.1.2 Teachers as learners of digital technology

Attending professional development conferences outside the school was important to both teachers. They both mentioned the workshops they attended even before being asked, explaining how significant the use of digital technology in their practice was for them.

Although Teacher B perceived her confidence in using digital technology in her practice to be lower than that of Teacher A's, they both took part in similar professional development (PD) workshops, such as uLearn (an annual national education conference in New Zealand) and Google Apps Summit (also referred as GAFE).

From these PD opportunities, both teachers were looking for the same learning outcomes; they wanted something practical they could use in their class instead of theoretical perspectives. Teacher A expanded:

I preferred [the] Google Apps one [conference]. Because it gave me more hands-on stuff I could take to the classroom. It could have been the courses I selected at uLearn, they were more theory based. Let's talk about this idea, but no "take this and use it in your classroom". I came back from the Google to share and I have got so much more already I am using in class, because it was an instant tool to do something that I didn't

know before. That's what I liked. You want to know how to put it into your classroom tomorrow for me, not how to think about it.

Teacher B noted that having digital technology professionals introducing her to new tools instead of practitioners show-casing what they were doing in their classes was more relevant to her. She was able to use these tools in her own class since it is all about the tools and less about the pedagogy.

Both teachers commented on their eagerness to take on any PD the school was offering. Teacher B explained "it is something I want to feel more confident in using". Despite the variation in their confidence, both teachers were still happy to learn more about digital technology to enhance their practice.

4.1.1.3 Teachers as supporting colleagues

In an effort to mitigate disparities between teachers' efficacy in using digital technology, the school had recently gathered a team of teachers who wanted to support their colleagues on their learning journey regarding the integration of digital technology. Teachers shared what they found useful with the rest of the team on a regular basis. Teacher B had asked to be involved in the newly created team. Since she had attended digital technology-oriented PD, she had come to believe her colleagues were "probably in the same position as me, who is not confident in using ICT and the little bits I have started using would be a good start for many of the teachers". It appeared that her perceived low self-efficacy in using digital technology allowed Teacher B to feel empathy towards her colleagues experiencing the same difficulties as she did.

4.1.1.4 Teachers' views regarding the use of digital technology in their teaching practice

As with any tools or resources used in the class, digital technology presents some positive and some negative aspects. During the interviews, teachers mentioned some benefits as well as some disadvantages for them and their students.

4.1.1.4.1 Advantages of using digital technology in class

The benefits of digital technology were said by the teachers to outweigh the disadvantages. The main advantages noted by the teachers were students' efficacy in using digital technology, the ease technology brings to teaching and learning, the support an online collaborative platform provides for students' writing skills, and the collaboration among students that is possible when using an online collaborative writing platform.

Students' efficacy in using digital technology

Both teachers commented on the fact that students were capable of using digital technology in class for learning. Teacher A stressed that although some might need help or guidance, "no one is incompetent". She believed that teachers do not need to explicitly teach students how to use digital technology as she adds "We don't need to sit and teach them how to use a computer".

As for Teacher B, she mentioned that she was very happy for her students to be more able than her and could teach her tips and that she sometimes asks them for help. Her students are occasionally more *au fait* with digital technology than she is. Teacher B gave the following example:

There are a few things that I have learned and said I am going to teach them that, little things like the little Plus or Start button down there. I have learned that at uLearn. The first thing I did was to show them and said "look what I have learned!". Some were like, "Yes we knew how to use it!".

The timeliness of digital technology

A significant advantage of using digital technology for the teachers was its timeliness. In other words, it helped them in their daily tasks. For example, and relevant to this study, the use of digital technology when writing allowed teachers to check on their students' work while the students wrote instead of asking students to hand over their books. Teacher B mentioned that "when you want to read or you want them to read, you are stopping them in their mindset". Being able to easily see her students' work allowed her to identify issues quickly. She "could stop the class", give further instructions or alter her pedagogy to refocus the class on the task according to what she had read in the students' work.

• The use of an online collaborative platform supports students' writing skills

Not only did digital technology facilitate teachers monitoring student writing more efficiently, but it also presented them with new and different opportunities to support their students' writing. They thought that typing on a keyboard mitigated many of the issues related to messy handwriting, and increased motivation for some students. Teacher B estimated that "95% of the students would prefer to do their writing on a computer than by hand". However, Teacher A did not share this view. She believed that students who are not motivated to write lack the motivation for school, and the use of an online collaborative writing platform cannot fix this issue. She explained:

Students who struggle, they struggle because their motivation for school isn't there, regardless of it is working in their books or working in digital technology it doesn't necessarily matter because they have not got the motivation.

Nonetheless, Teacher A noted that the use of an online collaborative writing platform can support students' writing skills because it is easier for students to type, to organise their ideas and to increase the quantity of writing students can produce. This then allows the teacher access to a bigger sample of work on which to provide feedback. She claimed:

One student in particular, when writing with a pen and paper, for a writing sample when they only get 45 minutes, he only would write maybe 3 lines in 45 minutes. It is not a lot there to mark, you have not got a lot to look at. On a computer he would write a couple of paragraphs, so he is a bright kid, academically in reading and in maths, but in writing, because he struggles with the side of it, he is lower. He has actually the ideas, getting them down is the issue. Using his iPad he can do a lot more work, and a lot of work that is actually quite good.

Scaffolding was mentioned by Teacher B, who thought that an online collaborative writing platform could replicate the idea of a "*modelling book*" format. The teachers used a modelling book to provide students with examples of the work they should be aiming to produce.

• Collaborative work among students

Teachers reported that an online collaborative platform allowed students to work collaboratively and be inspired by what other students have produced since everybody can have access to each other's work. Indeed, the whole class shared their work in a common folder. Teacher B mentioned "when they wrote in pairs they could see what other people were doing they got ideas". She stressed that this arrangement supports learners' writing skills development, while keeping their work authentic because students "can get ideas from others, not stealing their ideas".

4.1.1.4.2. Disadvantages of using digital technology in class

Teacher A and Teacher B mentioned two main disadvantages that the use of digital technology may present. Firstly, if the use of digital technology is to effectively enhance students' learning, it relies on the teacher's self-efficacy and on her acquired experience. Being confident in using digital technology, Teacher A stated it felt natural or normal for her to use digital technology

in her own practice. Teacher B stated "I'd say working towards it I am not confident that I am not unconfident [...] it is all learning in process for me".

Both teachers recognised that learning to use digital technology involves a journey, and that experimenting with the use of digital technology is the most efficient way for students and teachers to actually learn how to use it efficiently. Furthermore, both teachers expressed the idea that the more it is used, the easier it is to set expectations for students to thoughtfully use digital technology. They acknowledged that some discussions among students might occur the first time a tool is used in class before students are capable of using it thoughtfully. Since Teacher A taught the same class the previous year when the students were in Year 7, she was able to reflect on what happened when students were asked to use digital technology and were on their way to learning how to use a tool. Teacher A explained: "Because I had them last year, I had done that sort of task, or similar kind of task last year. So they argued last year! it is just them learning".

Using digital technology in a collaborative manner needs to be learnt in class. Teacher A taught half the class last year when they were in Year 7. She noticed that doing a similar activity the previous year allowed her students to learn how to be more thoughtful as she explained: "If you are all working on the same thing you cannot take all the space, you need to be considerate". She commented students became "quite vocal when someone made their textbox big", which then required them to negotiate the correct behaviour when using digital technology in a collaborative manner.

In summary, despite the difference in the confidence they felt using digital technology, both teachers considered that it has a role in supporting their students' learning. Although the teachers pointed out some disadvantages in using digital technology in their class, they stated that the benefits outweighed the disadvantages. According to both teachers, students' self-efficacy in using digital technology was not an issue and the use of an online collaborative writing platform such as Google Docs supports students' writing skills and eases collaboration among students.

4.1.2 Feedback

After discussing teachers' use of digital technology, I asked them questions regarding their understanding and use of feedback. Four main themes were identified: general outline of teachers' conception of feedback, feedback as a positive reinforcement tool, the use of feedback

for and by teachers, and the students' views regarding feedback. Each of these are detailed next.

4.1.2.1 General outline of teachers' conception of feedback

Beginning from Phase One, the two teachers had a clear conception of feedback. Along with providing a clear definition, they were able to explain why they gave more verbal feedback than any other kind of feedback.

4.1.2.1.1. Definition

Feedback is associated with what comes next and improvement (section 1.2), and consistent with this the two teachers in the study described feedback as "advice" which leads students to focus on what they can "improve on". Teacher B went further by indicating that it is about "specific things". She even suggested that providing effective feedback is a sign that good teaching took place. She mentioned:

I suppose me giving them [students] feedback and them listening and doing it, it is going to make me a successful teacher.

During the Phase One interview, the teachers acknowledged that to be as effective as possible feedback needed to be timely and on a continuous loop.

Teacher A stated that after a task has been completed, it is too late to provide feedback as students "are not necessarily going back and change if it is a published piece of writing". As she pointed out, "they can make these changes and adjust their writing as they are going" if feedback is given while they are working on a project.

Teacher A stated she hoped that "they [students] would say that we are giving them feedback all the time" despite her not being explicit to her students when she was giving feedback. She explained: "We are not 'I am going to give feedback now'". This practice of not identifying an action as feedback was echoed by Teacher B when she mentioned that "it is not specifically said".

Both teachers said that their preference was to give oral feedback during class time. Teacher A stated that conferencing with students is more beneficial because her students might not look at written feedback and so she would be wasting her time:

You could write comments in their books, but they would not necessarily look at it. So it would be a waste of my time. They would not get anything from it.

Carrying on the idea of not wasting time, both teachers commented that giving oral feedback saved them time compared to written feedback. Besides saving time, Teacher A mentioned that she was taught that students had to be there next to her when she provided them with feedback:

We got told through university, don't mark books unless they are with you.

4.1.2.2 Feedback as a positive reinforcement tool

The teachers thought that if feedback was positive, or at least included a positive comment even when constructive criticism was provided, it could increase students' motivation.

Both teachers stressed, on different occasions during the interview, their fear of being perceived by students as criticising their work. Teacher B explained that she "never wants to say they have done it wrong". Hence, she made sure that her feedback always included a "positive comment and then something to work on". This view was echoed by Teacher A who explained she gave her students feedback shaped like a sandwich, in other words, "a positive, a critic and another 'you are doing very well, keep going'" (this approach of feedback provision is often referred to as "feedback sandwich"). She also stressed that "I don't want students to be afraid to come and show me what they have done", and she continued adding that feedback is also to "congratulate students on what they have achieved so far".

The idea of positivity was evident as a school wide, bigger picture of learning. Teacher A mentioned that as the school is a PB4L School (Positive Behaviour for Learning), it is therefore important to her to stay positive when providing feedback:

Hopefully, they would say that they get positive feedback, being a PB4L school, being positive is a biggy.

This positivity was intended to increase students' motivation to carry on a task as Teacher A elaborated:

Hoping by saying what they have done, that you are proud, that it would help them motivated with whatever the task is.

Overall, their comments indicated they were of the view that feedback can have a big impact on motivation as long as it contains some positive comments amongst advice.

4.1.2.3 Feedback is useful for teachers

Feedback is useful to students as it highlights what their next learning step can be and how they can improve but feedback can also be an aid to teachers. Conferencing with a student helps the

teacher become aware of the learner's next step and supports the teacher making sense of what is needed by the student. However, teachers also experienced some frustration relating to the feedback.

When giving feedback to students, teachers internalised what had been discussed, and made sense for themselves what their student's next learning step would be. Within this dialogue between her and the learner, the teacher was able to assess how she can assist a student. As Teacher A explained, it is not written feedback but the conferencing she holds with her student that allows her to place the present learning stage within the bigger learning picture:

I have actually met with the students and discussed their learning. And also I know what their next steps are. Because if I look at their books, I think I don't know what to say. There would be a gap in my knowledge where they could improve [...] I don't know how I would teach them, where to go next.

Although both teachers prefer providing predominantly verbal feedback, Teacher A pointed out that it can create pressure, as she may not be able to think on the spot how to respond to a student's inquiry:

Sometimes I have put something in the feedback and not be expecting them to necessarily clarify, and I would be: Hang on, now I need to explain it to you, you put me on the spot, I haven't had the time to go away and think 'this is what they need to do, and this is how I am going to teach them'.

4.1.2.4 Teachers' frustrations about feedback

The teachers mentioned a few frustrations regarding feedback. The lack of support to teachers by the school and the lack of clarity regarding the provision of feedback was acknowledged by Teacher B. Firstly, although she did not want to "offend anyone", Teacher B commented that the training about feedback she had received from the University had been "a waste of time". Despite her tutors teaching her the difference between summative and formative assessment, she admitted "I would probably say I have not been taught how to specifically give feedback".

Another significant frustration about feedback and training is the lack of communication or support within the school concerning students' assessments. Teacher B commented that she had been given a writing rubric to use to mark her students' work without any explanation: "This school has their own set of writing progression, but we were not told. They were just given to us in an assessment folder. They came to us mid last term, [...] but no one told me

what to do with them". It is only when she was proactive and asked her mentors that she was given some ideas on how to effectively use them in her class: "During our mentor meetings, we asked about them. How we could use them in our class, and they gave us some ideas". Overall, the teachers considered they were unprepared and unsupported regarding how to provide effective feedback.

Finally, another kind of frustration was the notion of time. Teacher B expressed her vexation at the idea of not being able to provide each student with effective feedback as often as she wished:

I had a roll of all 63 students and I went through and I tried to get around all the students. I didn't. I got around 45 and that's with the help of Teacher A. Because I couldn't, I find, I was like I am not going to be able to go around their narratives, I AM GOING TO TRY [emphasised by tone during recording] to get to touch base with every single student.

By providing feedback to students, teachers become aware of where students are at and what their next steps could be. It is in a dialogue with her student that a teacher can make sense of what her student's needs are. However, a teacher may also experience some frustration about a lack of support regarding the provision of feedback and about the time it can take to provide each student with effective feedback.

4.1.2.5 Teachers' perceptions of students' views regarding feedback

Teacher A observed some students are not as comfortable with seeking feedback, asking questions or even initiating a dialogue with their teacher and "you have got to push them to answer or ask them a question to join in the conversation". Teacher A commented that "some kids would be like 'yeah, yeah, yeah'. Some other kids would be 'how do I add a semi colon?'". The teachers felt that some students were not as engaged with feedback as much as others.

She acknowledged that teachers need to make a real effort to try to connect with some students who are struggling, and initiate conversations with them:

We have a group of lower end students in terms of academic level, that we make a real effort [with]. We try to check with and see how they are going and give them some feedback [...] We know that they are not coming to us, so we have to make the effort to go to see them.

Additionally, Teacher A said she had found girls more so than boys (who tend to expend less in their writing) are more active in engaging the teacher in feedback dialogue about their work. Teacher A recognised:

I have had a group of girls last year and again this year, and they are very high achievers, they are perfectionists. They are quite critical thinkers [...] If I give them feedback, often they would come back and ask 'why', to clarify what I might have said or written because they want to go away and make it better.

A divide is seen to appear between students who initiate participation in a dialogue with their teacher and those who do not. According to Teacher A, students who are already experiencing success seem to be active in the feedback process. According to the teachers, among these students, girls are more involved in that process than boys.

From the start of the investigation, the two teachers had a clear understanding of effective feedback. They believed that feedback needs to address the student's next learning steps while she is working on a task. Teachers stressed the importance for them to create a trusting learning environment where their students feel happy to ask questions. For that to happen, they explained they made sure to include positive comments in their feedback. Nonetheless, they noticed a difference between students who are comfortable engaging in a dialogue with them and those who are not. They also noticed that girls are more proactive in seeking feedback.

4.2 Phase Two: First cycle of intervention

An intervention workshop took place following Phase One. The intervention workshop was intended to act as a professional development session during which teachers were supported in consolidating their understanding of feedback, persuasive writing and the potentially most efficient and effective ways of supporting students in enhancing their skills of the persuasive writing genre. This workshop, run by me as the researcher, lasted half a day during school hours. After being presented with a Powerpoint regarding feedback and persuasive writing, the teachers and I co-constructed what counted as effective feedback and how to effectively teach and support students in enhancing their persuasive writing skills. Additionally, the teachers and I discussed ideas regarding an online collaborative writing platform, persuasive writing and success criteria. These discussions led to the planning of lessons for the next few weeks following the workshop.

To guide and challenge teachers' understanding and knowledge of feedback and success criteria, I supported the workshop with the use of Wiliam and Leahy book (2015): *Embedding Formative Assessment: Practical Techniques for K-12 Classrooms*. This resource was adopted to support teachers' learning since its discourse was believed to be easily accessible to both teachers and that its content was supported by thorough evidence. I chose the main points raised by Wiliam and Leahy and summarised them to the teachers on the Powerpoint.

4.2.1 Discussions about feedback, online collaborative writing platform and persuasive writing genre

I first presented a Powerpoint explaining the aims and the motives of the investigation, what constitutes effective feedback, what good persuasive writing looks like, the Toulmin method of analysing and organising text, and the rationale behind providing students with success criteria rubrics.

A conversation started to take place between the teachers and me. We discussed the ideas of providing feedback digitally, persuasive writing, assessment criteria and finally we created rubrics for the persuasive writing genre.

4.2.1.1 Digital feedback

The participating teachers decided which online collaborative writing platform would be best suited for their classes and raised the idea of use of an online bank of feedback comments which could be used to ease the provision of feedback.

• Google Docs

Since the school where the research was conducted used Google Apps, it was agreed that the students were going to use Google Docs to write. Teachers were accustomed to using Google Classroom and students were already familiar with Google Docs as they had previously completed some tasks on this platform. Google Docs is a free online word processor, part of the Google office suite. Being online, students do not have to download any specific software, which allows them to own any type of computer, as long as it can access the internet. Users can also collaboratively create and edit the same document online, synchronously and asynchronously Although students had already used Google Docs form some of their writing prior this investigation, they had never received written feedback on the platform since teachers were told during their teacher education that the best means of providing feedback was orally in class.

The teachers mentioned that the day before the workshop was held, they had provided feedback on their students' writing, which had been completed on Google Docs. Both teachers listed some advantages the use of an online collaborative writing platform offered:

- Having all the tabs opened, and being able to go from one child to the other very quickly
- o Being able to see what the other teacher wrote
- o Being able to see what the students in other class wrote
- o Being able to copy/paste comments for students with similar needs

• Checkmark

During the GAFE Summit (Google Apps For Education) the teachers attended, they were introduced to a Google add-on called CheckMark. This free add-on allows teachers to effortlessly place feedback on a student's work by clicking on comments stored in a preloaded bank. This bank can easily be edited by teachers. Both teachers admitted that they had not had the time to investigate this add-on further than the presentation they had received at the summit. Nonetheless, they decided that it would be the tool they would use when providing feedback.

4.2.1.2 Persuasive writing

After agreeing on using Google Docs as an online collaborative writing platform and CheckMark as an online bank of comments, the teachers and I looked into persuasive writing.

• Toulmin Method of argument

During the presentation of the Powerpoint, the teachers were introduced to the Toulmin method (see section 2.5.2 for details). Since the Toulmin Method follows a logical argumentative sequence, I thought that it might be useful for the students to follow it when writing their persuasive writing pieces. Both teachers agreed it was a valuable method easily adaptable for their Year 8 students. Teacher A commented that it would be beneficial especially for her "high achiever students". I pointed out to her that it would be even more helpful for literate cultural capital Poor students who need more support than other students. It was then agreed to use an adaptation of the Toulmin Method. The teachers and I spent time identifying key words used by Toulmin, such as claim and counterargument and deciding on their meaning and what they could look like in students' writing.

• Writing structure for persuasive writing

Discussing the Toulmin Method naturally led the teachers to persuasive writing and how to

support their students in following the prescribed structure of such a writing genre. The teachers

indicated that to date their students had been taught that an essay should adopt the following

structure: Introduction, where students present their points; the main body paragraphs, with

one point (that has been presented in the introduction) in each section; conclusion, where

students recapitulate their points and link them back to the introduction. Both teachers and I

came to the decision that this structure did not need to be changed and that students were going

to be told to follow this structure for their persuasive writing tasks.

After deciding the text design, the notion of paragraph structure was raised by the teachers. So

far, when they had taught students how to write essays, they used the acronym PEEL to help

students remember each step of a paragraph structure. PEEL stands for:

P: point

E: example

E: explain

L: link (back to the point of the paragraph)

Since this acronym had been used extensively by the students, the teachers chose a similar

acronym for the persuasive essays:

P: point

E: evidence

E: explain/ elaborate

R: restate (the point of the paragraph)

The term 'evidence' was inspired by the word 'data' used in the Toulmin Method. The teachers

thought that 'data' might not be fully comprehended by all students. However, they thought

that 'evidence' would be clearer for Year 8 students.

To recapitulate, during the first part of the intervention workshop, the teachers and I discussed

and agreed on the use of Google Docs as an online collaborative writing platform, that feedback

will be provided using the Google add-on CheckMark and that students will use the Toulmin

method to organise their argument as well as follow the PEER structure when writing each

paragraph of their persuasive texts.

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4.2.2 Success criteria

After discussing Google Docs, feedback and text structure, the teachers and I considered the idea of success criteria. In order to co-construct a clear and effective success criteria rubric, the teachers looked at rubrics already in use by the school and some other rubrics that I shared with them. I describe this process next.

4.2.2.1 Clarity of assessment criteria

To commence the next stage of the conversation about success criteria, an adaptation of a table from Wiliam and Leahy (2015) exemplifying the significance of formative assessment for every teacher was shared (see Appendix 3). This table stressed that it is important that the success criteria of each task are clearly explained and fully understood by every student in the class before the task begins. It also provided a progression demonstrating the teacher's and the learner's journey about feedback. Following discussion, Wiliam and Leahy's (2015) definition of success criteria was adopted as follows: "we use success criteria...to describe the criteria that we use to judge whether the students' learning has been successful" (p. 31).

Since the teachers were clear about what are success criteria and why it is important to clarify them to the students, we looked at exemplars of rubrics. The teachers provided their school's rubrics. It had been written in 2012 and teachers were expected to use it when marking their students' writing. We also looked at the e-asTTle's rubric. In New Zealand, students' learning in reading, mathematics and writing is assessed through e-asTTle, which is an online assessment tool (https://e-asTTle.tki.org.nz/). We were particularly interested in the categories stated by e-asTTle: ideas, structure and language, organisation, vocabulary, sentence structure, punctuation, and spelling. These categories were compared to those of other rubrics. We examined a rubric shared by Eltringham, Hawe, and Dixon (2018). They had used it during their research investigating Year 6 students' understandings and use of goals in the New Zealand writing classroom. We also looked at The National Assessment Programme – Literacy and Numeracy (NAPLAN) writing rubric. NAPLAN is the Australian equivalent of e-asTTle; it is an assessment for students in Years 3, 5, 7 and 9. The NAPLAN writing rubric comprises 10 foci: audience, text structure, ideas, persuasive devices, vocabulary, cohesion, paragraphing, sentence structure, punctuation, and spelling.

4.2.2.2 The creation of rubrics for persuasive writing

The two teachers then created two rubrics for the persuasive writing genre: one exemplifying the foci of this writing genre at different levels of the New Zealand Curriculum and the other to show students what they could do next to reach the next level of the curriculum.

• Persuasive writing genre rubric

The teachers created the following persuasive writing rubric (see figure 1). They decided to include progression from Level 2 to Level 5 of the New Zealand Curriculum since their students' writing ability varied between these levels. It is important to signal here that at the end of Year 8 students should meet the writing requirements of the Level 4A. The teachers decided to only include seven foci in the rubric as they believed that more foci might be too cumbersome for *all* students in their classes. These criteria appear in the rubric according to their importance identified by the teachers. For instance, surface features, such as punctuation, did not hold the same significance as writing a persuasive text for a targeted audience. To be as clear as possible to students, the vocabulary in the rubric has been kept simple and each box was written in the first person singular, in the hope that students might be able to evaluate their own work.

Figure 1 Persuasive writing rubric

	Level 2	Level 3	Level 4	Level 5
Audience & Purpose	I am starting to think about who my audience is for my writing. I state my point of view in my writing.	I am aware of who my audience is and I am starting to target my writing in the appropriate style. I am starting to express my point of view throughout my writing.	I am aware of who my audience is and I can target my writing in the appropriate style. I can maintain my point of view throughout my writing most of the time.	I am very aware of who my audience is and I can thoughtfully target my writing through the appropriate style. I can clearly and consistently maintain my point of view throughout my writing.
Text Structure	I have started to organise my ideas in my writing.	I have written an introduction, body paragraphs and a conclusion.	I have written an introduction, body paragraphs and a conclusion in a logical sequence.	I have linked main and supporting ideas within and between paragraphs, using a range of connective words.
Paragraphs using the PEER structure	I have started to group and organise some of my ideas.	I have used some parts of the PEER structure in my paragraphs.	I have followed the PEER structure in each of my paragraphs.	I can confidently use the PEER paragraph structure with extensive detail.

Ideas	I have many simple ideas from my own immediate	My ideas are relevant and start to show complexity.	My ideas are complex and elaborated.	My ideas are authentic and original.	
	world.	I am beginning to show different points of views.	I have written about the wider world.	I have deliberately included information to justify my thinking.	
Language (vocabulary)	I have used some persuasive language features.	I have used many persuasive language features.	I have used a wide range of persuasive language features.	I have deliberately used a wide range of persuasive. language features with	
	I have used a range of everyday words with a few topic specific words.	I have used many topic specific words that add information and interest to my writing.	I have used some words and phrases that enhance the meaning.	confidence. I have deliberately used words and phrases that enhance the meaning.	
Sentence structure	Some sentences I have written make sense. I use mainly simple and compound sentences.	Most sentences I have written make sense. I am starting to use a variety of sentence structures, beginnings and lengths.	All sentences I have written make sense. I have used a variety of sentence structures, beginnings and lengths.	I have deliberately varied sentence structure, beginnings and complexity to impact and engage the reader.	
Surface features (punctuation and spelling)	I can spell a range of high frequency words correctly.	I can spell high frequency words correctly most of the time.	I can spell high frequency words correctly and attempt difficult words.	I can spell difficult or uncommon words correctly.	

	I have used some punctuation correctly.	I have used a range of punctuation.	I have correctly used a variety of punctuation.	I have used a wide variety of punctuation correctly throughout my writing to enhance meaning.
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• "Next step" rubric

After creating a persuasive writing rubric, the teachers thought it might be useful for students to have "a persuasive writing next-steps" rubric (see figure 2). The idea behind the next-steps rubric was to support students in enhancing their writing after being given feedback by their teacher. This rubric follows the same foci as the persuasive writing rubric and gives examples to the students of what students could use in their own writing to access the next level of the curriculum. It was agreed that all students would be given these two rubrics and they would glue them in their books, so they could refer to them at any time.

Figure 2 Persuasive writing rubric next steps

	Level 2	Level 3	Level 4	Level 5				
	Persuasive Essay Subject: Harr	y Potter						
	Topic: Harry Potter as a movie franchise vs. Hunger Games							
Audience & Purpose	Position Statement: Harry Potter was the greatest movie franchise in history, superior to Hunger Games.							
	Audience: My audience will be those who believe Hunger Games was the greatest movie franchise in history.							
	In this case, the audience are the Games.	hose that do not agree with n	ny stance on how Harry Pot	ter was better than Hunge				
	Introduction:			Connective words:				
	Introduce your Topic and your stance			However				
	Introduce the points for your bo	n opposing side and why	Besides					
Text Structure	your side is better.)			First, then,				
	First main body paragraph:		Although					
	State your side using the PEER	Structure		In summary				

	State the opposing side using	g the PEER structure		For example				
	Third main body paragra	ph:						
	State why your side is better using the PEER structure							
	Conclusion:							
	Restate your stance							
	Recap what you have stated in your paragraphs							
	Link back to the introduction	on						
Paragraphs using the PEER structure	Point Evidence Explain Restate							
Ideas	My dad says that	Some people think that	In New Zealand we think thatbut in England they think	In New Zealand we think thatbecause XXX but according to YYYY, in England they think				
	Modal verbs eg. must,	Pronouns to denote inclusion	n of the reader eg. You should	in your position				
T	shall, will, should, can.	The passive voice eg. I have	e been told					
Language (vocabulary)	Emotive words eg. controversial, forbidden, tremendous, magnificent							

	Rhetorical questions						
	Imperatives e.g. commands						
	A simple sentence in	cludes a verb and noun for one ic	dea. It looks like:				
Sentence Structure	- My mother likes milk chocolate.						
	A compound sentence is two simple sentences joined by a conjunction. It looks like:						
	-My mother likes milk chocolate and my dad likes white chocolate.						
	A complex sentence is a simple sentence that has been extended with more detail. It looks like:						
	-My mother does not d	eat chocolate because she wants	to lose some weight				
	Capital letters	Commas	Apostrophes	Quotation marks			
	Full stops	Question marks	Speech marks used	Colons			
Surface features		Exclamation marks	correctly	Semi-colons			
(punctuation and spelling)				Brackets			
				Parentheses			
		Ellipses					

In summary, the second stage of the intervention workshop involved looking attentively at success criteria and the significance for students to understand them if they are to write a robust persuasive writing text. Inspired by several persuasive writing rubrics, the teachers created two rubrics, one clarifying each focus of the persuasive writing genre for each NZ writing Level, from Level 2 to Level 5. The other, a next-steps rubric, could be used by students after being given feedback. The latter rubric gives specific examples on how students can improve their writing.

4.2.3 The planning

In the first two stages of the workshop, the teachers discussed students' writing, feedback, and success criteria rubrics. The third stage of the intervention workshop was about planning. After deciding the theme for their students' writing, the teachers created resources to scaffold their students' learning and co-planned the next few weeks.

The theme of Matariki came up very quickly. Occurring in the mid-winter, Matariki is a significant Māori celebration marking the new year. The teachers decided to ask their students to write a persuasive answer to the following question: Should Matariki be a public holiday in New Zealand? This theme arose because Matariki had just happened and that one of the teachers had seen an early evening TV debate programme that had a section about this issue.

It was decided that the teachers would invite their students to look at examples of effective persuasive writing texts and ask them to pull out persuasive writing structures. The aim of this exercise was for students to identify and comprehend what makes a persuasive writing text effective.

Since writing a persuasive writing text requires the author to have a certain expertise in the domain she is writing about, it was agreed that students would spend some time doing some research regarding Matariki, as well as other New Zealand and overseas public holidays. To scaffold their students' learning, the teachers decided to co-create a sheet where pros and cons about reasons why Matariki should or should not be a public holiday were listed (see appendix 15). This sheet aimed at supporting students in their research and giving them ideas on which directions to look at.

The teachers chose for students to do their research during their release time as they believed that such an activity did not require their presence. The next three weeks were planned together. Below is what the teachers wrote on a shared document:

WEEK 7

- Discuss the persuasive writing rubric (hand out and glue in)
- Research around Matariki and public holidays (Music and Drama)

WEEK 8

- Look at examples of persuasive writing, look at structures (Lessons)
- Planning for a piece of persuasive writing. Overall essay structure (pros, cons, argument) and PEER paragraph structure (Music and Drama)
- Writing is going to be in letter form and addressed to Jacinda Ardern
- Persuasive and emotive words list (hand out, glue in and discuss)

WEEK 9

• Write intros: no lesson

WEEK 10

- Tuesday morning: Students to change feedback according to feedback
- Start working on main body paragraph 1 following PEER structure
- Follow up is to finish paragraph 1

We will give feedback over holidays.

Students would not write during week nine as they would be at school camp most of the week, and teachers would need the few days prior to the camp to organise the last details. It was agreed that I would observe the classes during Week 10 and give out exit surveys to students.

During conversations, Teacher A brought up the idea that maybe literate cultural capital Rich students could debate the opposite side of their own thoughts regarding Matariki. For example, if a literate cultural capital Rich student believed that Matariki should not be a public holiday, then she had to persuade her audience that it should be a bank holiday. After some consideration, it was decided that all students will be doing the same activities so to be equal to all students and to keep the data as clear as possible.

To summarise, during the first intervention workshop, the teachers discussed what effective feedback looks like, they decided students were going to use Google Docs to write, that feedback was going to be provided using CheckMark. They also decided that students would adopt the PEER Structure when writing their paragraphs. They created two rubrics then planned that students would persuasively write about "Should Matariki be a New Zealand public holiday?".

4.3 Phase Two- Teachers' feedback: First cycle of intervention

During Phase Two of the investigation, the task for students was to write a persuasive essay on Matariki. For the task, they had to write a letter to the Prime Minister to convince her that Matariki should be an official public holiday in New Zealand. This took eight weeks but during this time, students had a two-week winter holiday.

The teachers introduced the persuasive writing genre during "tutorials" time instead of teaching it to the whole class. The classroom had to be of a substantial size since both classes were taught in the same room. To allow the teachers to divide both classes in smaller groups, at the back of the classroom were two rooms which could be closed up when desired. In these rooms, the teachers taught students in small groups which they called "tutorials". Students were grouped mainly by ability in the subject taught during these tutorials. After handing out the PEER Structure sheet (see section 4.2.1.2), the teachers took students through the notions and codes that are used in a persuasive writing piece. Then the teachers asked the students to write their essays in Google Docs only and the teachers provided their students with feedback through Google Docs. Students redrafted their letters three times according to the feedback they received. Of the three feedback comments teachers gave to each student, the second was audio recorded. This task started on the 20th August (Term 3) and ended just before the 24th October (Term 4).

In this section, I report my analysis of the teachers' comments on the three versions of writing and feedback produced and used by the ten target students. As noted in section 3.2, three of these students - Krishna, Mimi and Becca - were "literate cultural capital Rich" (LCC Rich), that is they were working above the standard in writing. Four were more disadvantaged regarding their literacy level (LCC Poor), that is Fahrid, Aïsha, Zoya and Ahmed. The final three -Vincent, Salim and Nettie- were in the middle (LCC Middle).

During Phase Two, LCC Poor students received a greater amount of text-based feedback and more feedback regarding surface language features. LCC Rich students received a greater amount of audio-based feedback.

It may be important to take a moment here and express my views regarding the identification of students according to their literate cultural capital. I firmly believe that if students are identified according to their LCC, but are not judged, their teachers and their school will then be able to cater to their learning needs, take conscious steps to provide students with adequate support (Chapman, Prochnow, & Arrow, 2015). By acknowledging the LCC each individual

student brings to school, I believe that teachers can ensure that their teaching caters for student needs and students receive the support they deserve. In other words, acknowledging what a student bring to their learning better allows each student to achieve the learning they are capable of.

4.3.1 Text-based feedback

Upon the completion of the analysis of the text-based feedback, it became apparent that LCC Poor students were provided with more surface language feature feedback whereas LCC Rich students received more feedback regarding the organisation of their persuasive writing. It is also interesting to note that all students from the three groups received approximately the same amount of support feedback.

I developed nine categories of feedback through my analysis of the three rounds of feedback provided to the ten target students as follows:

Table 3: Description of nine categories of feedback

categories	Examples
reread	check it makes sense
punctuation	capital letter
praise	well done
spelling	check which word you need: to or two
structure	is the point restated?
persuasive writing	evidence?
Language feature	do not start with because
suggestions	delete or add something like
extension	this website can help you understand

Further reading of the comments allowed me to group these nine categories into three themes; reread, punctuation, praise and spelling were categorised under "surface language features", whereas structure, persuasive writing and language features were categorised under "organisation". The term "support" was taken to encompass the notions of suggestions and

extension. Thus, after coding the comments received by the students during Phase Two, I ended up with three overarching themes: surface language features, organisation and support.

The table below (Table 4) illustrates the three themes, including a brief description of each theme and an example.

Table 4: Description of text-based feedback categories

Category	Description	Example
Surface language feature	This feedback targeted surface features such as spelling, punctuation or capitalisation of a letter for proper nouns or at the start of each sentence	"how could you break this sentence?"
Organisation	This feedback focused on the organisation of the persuasive writing per se	"be careful not to add another counter argument"
Support	The teacher wrote explicit suggestions for students to copy/paste in their own writing or suggested a third party source of information to support the student's learning	"a question can be quite good"

The table below details the feedback teachers provided during Phase Two to the different students. To make reading easier, LCC Rich students are highlighted in green, LCC Poor in pink and LCC Middle are highlighted in yellow. Again, to help the reader, each theme has been alternatively highlighted in a shade of grey.

Table 5: Details of the feedback teachers provided during Phase Two to the different students

	Surface language features				Organisation		Suppo	ort	
	reread	punctuation	praise	spelling	structure	persuasive	language	suggestions	extension
						writing	feature		
Krishna	-punctuation	-capital letter	-your first	-witch/	-explain more	-reword	-do not start	- we have	
	-check it makes		main body	which	-why?		with because	many more	
	sense (x4)		paragraph		-opening		-similar	cultures in NZ	
			ticks all		sentence		sentence	-by making it a	
			criteria		stronger		-delete or	public holiday	
					-what do you		comma	-bank holiday,	
					mean?			which might	
					-is the point			put	
					restated?				
Mimi									
Becca			-love this!			-less British	-where is the		
						what? Be specific	Mayor?		
						-listen to the			
						audio clip. Are			
						you for or against			
						Matariki?			

Vincent	-new sentence	-capital letter	-great start		-elaborate	-flow better	-a good hook	-asking a
		(x2)	-great			-reword	sentence	question
			sentence			-evidence?		-delete it
			-well done			-start your		-"some people
						counter argument		prefer"
						-sentence		-"because
						relevant?		many people
						-restate		would have to
								be"
								-"educating the
								nation"
Salim	-sense	-placement of					-who is the	
	-punctuation	the comma					letter from?	
	(x2)							
Nettie	-punctuation	-capital letter	-great	-hangi		-be careful not to	-could you add	
	-make sure all	(x6)	sentence (x2)			add another	a word like	
	words are	-how could				counter	"many" here?	
	correct	you break up				argumentdelete	-do not start	
	-the whole	this				the end of this	with BUT	
	conclusionadd	sentence?				sentence	-what could	
	some breaks						you add to this	

						-how could	word to		
						explain or	make		
						elaborate?			
Fahrid	-how you have	-reread			-hook	-flow better	-what word	-a question can	
	introduced	-capital letter			sentence		should you?	be quite good	
	your points?	(x3)			-have you		-what is more	-delete or add	
	-sense (x2)	-new			introduced		formal?	something	
		sentence (x2)			this clearly?		-don't start	like	
		-I think new					with because	-add	
		sentence							
Aïsha	-sense		-you've done					-add inthis	
			it well in					will help your	
								reader	
Zoya	-sense		-this is a				-"this is why I		
			great				think". It's		
			sentence				your letterso		
							you can		
Ahmed	-sense (x2)	-how could	-good	-check	-do you need		-is this a		This
	-new sentence	you break	paragraph	which	this question?		question?		website
		up?	(x2)	word you	-do you need				
					these? (x2)				

	-capital letter	-great	need: to
	(x4)	sentence	or two
	-full stop	-good work	

Note. LCC Rich students are highlighted in green, LCC Poor in pink and LCC Middle are highlighted in yellow. Each theme has been alternatively highlighted in a shade of grey

After categorising the feedback into the three themes, I counted how many comments were provided to each group of students. The table below illustrates the distribution of received feedback according to the target student groups.

Table 6: Distribution of received feedback per group of students

	Number of text-based feedback
LCC Rich students	23
LCC Middle students	42
LCC Poor students	44
Total of comments	109

Considering the distribution of comments, it can be seen that LCC Poor students received more text-based feedback than the other two groups, as they were provided with a total of 44 comments, or 40% of the total comments provided to the 10 target students. LCC Rich students received the least feedback with 23 comments or 21% of the total written feedback provided.

When we pay attention to what kind of feedback each group of students received, one can notice that:

- 48% of the feedback received by the LCC Rich students was categorised as organisation;
 11% of the feedback received by the LCC Poor students was in the organisation category
- 64% of all the written feedback provided to the LCC Poor students was of the surface language features category. In contrast, 39% of the written feedback provided to the LCC Rich students was in this category and 55% of the feedback provided to the other group of students
- 38% of the total of support feedback was provided to LCC Poor and 23% to LCC Rich students
- Of the total amount of feedback received, LCC Rich and Poor students received a similar amount of support feedback with 13% and 11% respectively

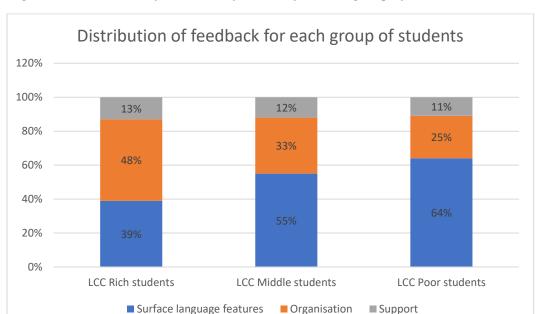


Figure 3 Distribution of text-based feedback for each group of students

An uneven distribution of the number of comments regarding surface language features can also be observed. Indeed, LCC Rich students received fewer comments in this category than the LCC Middle students who in turn were provided with fewer surface language features comments than the LCC Poor students. In other words, LCC Poor students received more surface language features (47%) than any other students. Indeed, 47% of the surface language features feedback provided to the target students was given to LCC Poor students, whereas 15% of this kind of feedback was given to LCC Rich students.

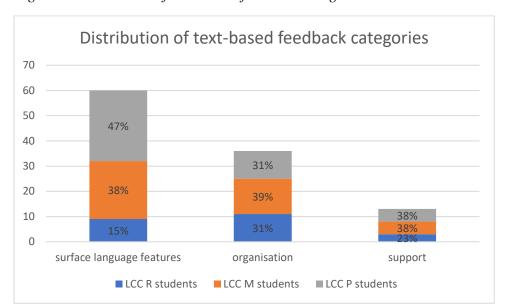


Figure 4 Distribution of text-based feedback categories

Furthermore, LCC Poor and Middle students were provided with more support comments than LCC Rich students. Both groups received 38% of the total feedback provided in this category, whereas the LCC Rich students were provided with 23%.

In conclusion, LCC Poor students received more feedback comments (44 over 109) and more feedback regarding surface language features than any other group of students. Additionally, LCC Rich students were provided with fewer feedback comments but more of this feedback focused on their organisation of the persuasive writing genre.

4.3.2 Audio-based feedback

After students amended their work according to the text-based feedback they had received on their first draft, the teachers provided each student with audio-recorded feedback on their redraft of their persuasive writing essay. Teacher A recorded her comments in one session, whereas Teacher B recorded several shorter comments for her students. Teacher A's comments were longer on the whole than Teacher B's.

The following table exemplifies the audio-based feedback.

Table 7: Details of the audio-based feedback

	Surface language features				organisation		support		
	reread	punctuation	praise	spelling	structure	Persuasive writing	Language feature	suggestions	extension
					-start your		-there is	-"there are many	
					conclusion better		something	reasons why"	
Krishna					with your point		missing at the		
							end of this		
							sentence		
			-great first		-confusing			-your restate	
			point in this		-your point			sentence should be	
			paragraph		sentence is talking			along the line of	
					through				
Mimi					-can yousee				
WIIIII					where				
					-evidence				
					-elaborate why				
					-why it might be a				
					bad thing				

	-paragraph	-confused	-which side of		
Dagge	looking	-how can you	the argument		
Becca	fantastic	argue your second	do you stand?		
	-well written	body paragraph			
		-you need to start		-you could use	-"although some
Vincent		the third body		firstly,	peoplebecause"
		paragraph		secondly	
	-this	-elaborate your			
	paragraph is	sentence			
	looking very				
	very good				
Salim	-I like how				
	you				
	-I think it's				
	an important				
	point				
		-do not restate			-instead oftry to
		your opinion,			introduce maybe
Nettie		restate your			like this
		counterargument			-something like
					"some"

				-"points that I will"
				instead of
Fahrid				-don't
				introduceinstead
				"many"
	-you made	-can you explain		
	great points	more		
	in this			
	paragraph			
Aïsha	-it's looking			
Alsiia	good			
	-you are on			
	the right			
	track			
	-well done			
	-when I	-can we make this	-from your	-could you change
Zovo	read it	sentence more	introduction,	along the line of
Zoya	to	clear?	your side of the	
	you		argument	

	-the first sentence	-put this word	-you may want to
Ahmed	of your	instead of	start your
	conclusion		conclusion

Note. LCC Rich students are highlighted in green, LCC Poor in pink and LCC Middle are highlighted in yellow. Each theme has been alternatively highlighted in a shade of grey

The teachers provided 41 audio comments in total to the target students. The LCC Rich students received 41% of these comments, whereas LCC Poor students received 34%. It is interesting to note that no feedback relating to spelling, punctuation and extension was provided.

Feedback in the category "organisation" was double that of the themes "surface language features" and "support": 41 % compared to 27%.

LCC Rich students received more than twice the proportion of feedback comments regarding organisation than the other two groups of students: 57% compared to 24%.

LCC Poor students received twice as many "support" feedback comments than LCC Rich students (44% and 22% respectively). They were given slightly more feedback regarding surface language features than the other two groups of students, as they received 45% of the comments provided in this category.

The distribution of feedback for each group of students was uneven as of the 17 audio comments the LCC Rich students received, 70% were in the organisation category, whereas 36% of the comments the LCC Poor students were from the same category. Furthermore, the LCC Poor students received an equal percentage of organisation and surface language features feedback (36%). In contrast, 18% of the comments which were provided to the LCC Rich students were from the surface language features category.

LCC Poor and LCC Middle students received more feedback in the "support" category (28% and 30% respectively) than the LCC rich students (12%).

Figure 5 Distribution of audio-based feedback

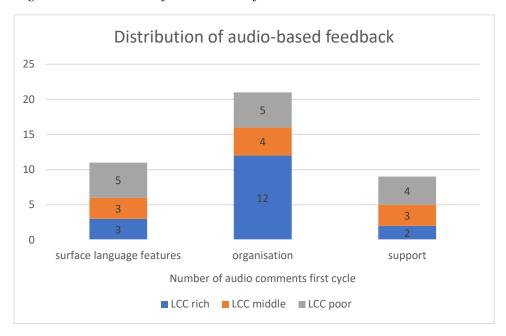
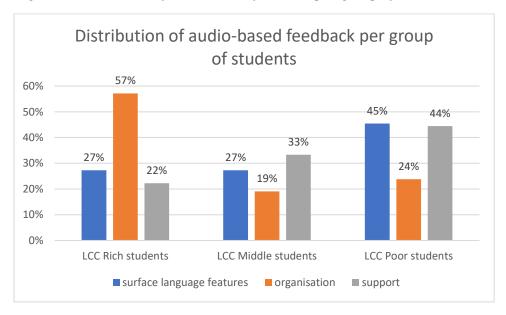


Figure 6 Distribution of audio-based feedback per group of students



To conclude this section, during Phase Two the teachers provided students with text-based and audio-based feedback. The LCC Poor students received more text-based feedback comments than the LCC Rich or LCC Middle students. However, a greater proportion of these comments belonged to the surface language features theme. On the contrary, LCC Rich students received fewer feedback comments but the feedback they got was in the organisation theme. These comments were more likely to support students to enhance their writing. Interestingly, LCC Rich students were provided with more audio-based feedback comments. It is also important

to note here that more feedback in the organisation category was provided audio-based than text-based (51% and 33% respectively).

4.4 Phase Three: Second cycle of intervention

After students had redrafted and submitted their piece of persuasive writing regarding Matariki, the teachers decided that students needed to write another piece on a different topic. The teachers wanted to see if students could improve their grades from the first piece. In other words, the teachers wanted to see if students would use the feedback and learning from their completion of their first piece in their second essay.

It was then decided that students would write an essay in a persuasive writing genre regarding the ban of plastic bags in New Zealand as this topic had come up during conversations in the class. The two participant teachers provided students with feedback after the introduction, after the main body of the essay had been written and finally after completion of the conclusion. That is during this phase, teachers provided students with three rounds of feedback, all of it text-based on Google Docs.

Overall, during this phase, the teachers provided 128 feedback comments. It is interesting to note that the majority of these belonged to the "surface language features" theme, with 55% of all comments. As the pie chart below illustrates, 37% of the comments received for this task were from the theme qualified as "organisation" whereas 8% were in the "support".

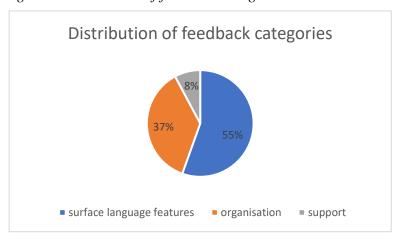


Figure 7 Distribution of feedback categories

Looking at which groups of students received the most comments, it is interesting to note that LCC Poor students received 41% (53 comments) of all the comments, followed by the LCC

Rich students with 32% (41 comments) and the last group was provided with 27% of all comments (34 comments) (see Figure 8 below).

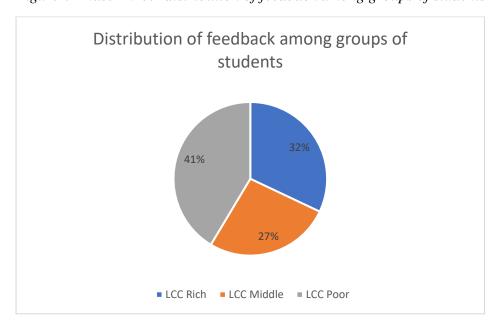


Figure 8 Phase Three- distribution of feedback among groups of students

Looking at each group of students and what kind of comments they received we can see that:

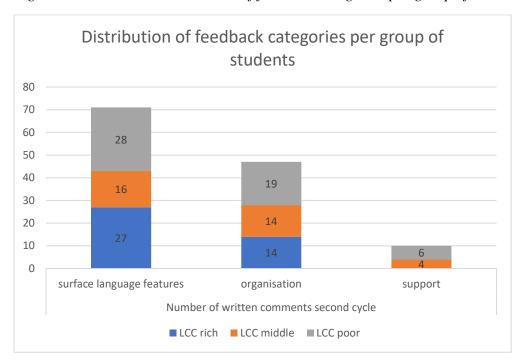
LCC Rich students were provided with 41 comments of which 2/3 (or 27 comments) were from the "surface language features" category and 14 comments from the organisation theme. It is important to note that they did not receive any comments in the "support" category.

LCC Poor students received the most feedback with 53 comments. Half of these comments were from the "surface language features" (or 28 comments) and a third (or 19 comments) from the "organisation" theme. Eleven percent of the comments they were provided with were identified as "support" feedback.

LCC Middle students were provided with the fewest comments (34). Forty seven percent of the comments they received were from the "surface language features" (or 16 comments), 41% (14 comments) from the "organisation" and 12% (four comments) from the "support" category.

Figure 9 below clearly shows the repartition of the comments for each group.

Figure 9 Phase Three- distribution of feedback categories per group of students



The table below recapitulates the feedback students received during Phase Three.

Table 8: Feedback students received during Phase Three

		Surface language fea	tures			organisation		supp	ort
	reread	punctuation	praise	spelling	structure	Persuasive	Language	suggestions	extension
						writing	feature		
Krishna	-reread for	-what does a		-an	-this first sentence	(student wrote:	-how could		
	sentence	question need?		-check	needs to introduce	the only point)	you start this		
	punctuation x4	-check capital x4		spelling	the pointhow	????? do you	sentence		
	-reread it does				could you?	mean	better. Maybe		
	not make sense				-should this be part	-where can you	something		
	x8				of your intro?	add This essay	like		
						will persuade	-change to		
						that?	They are		
						Somewhere in			
						your intro you			
						need to state			
						your stance			
						-good evidence			
Mimi		-what do you need	-very nice	-delete		-great work on			
		to change there?	-well	'S'		bringingas			
		[capital letter] X2	structured			this is some			
			and some			great evidence			

		interesting			
		points			
		-nice!			
		-great			
		persuasive			
		language!			
Becca	-reread to check	-nice	-check you have	-great	-essay
	this makes sense	hook	clearly outlined the	explanation	(instead of
			3 main points you	-add on	speech)
			will be covering	research/ China	
				no longer taking	
				our plastic bag	
				-make sure you	
				remove yourself	
				from this	
				paragraph. We	
				want it to come	
				from the other	
				side	

Vincent	-what does a	-good	-Be careful do not	-good evidence	-how could	-persuade
	question need?	start of	write a speech, it		you make	you (instead
		this	needs to be		this more	of explain)
		paragraph	formal/professional		formal/	-which is
			writing		serious? (you	why plastic
					may be	bags should
					asking)	be banned
					-it's because	in NZ
					(that's	
					because)	
					-the start of	
					this sentence	
					is a bit too	
					casual	
Salim	-check this	-this is a		-This is a nice		-can you
	punctuation	fantastic		explanation,		add onto
	-This is a nice	hook!		however it is		this
	explanation,	Really		quite a long		sentence or
	however it is quite	draws the		sentence. Where		create
	a long sentence.	reader in		could it be		another one
				broken		to include

something along the
along the
along the
lines of
"and this is
why"
ems' -plastic bag
ght sound should be
ter banned
because
they end
up
2

					- is the point	
					restated clearly?	
					X3	
Fahrid	-reread to make	-how could you	-good	-check	-start with I	-NZ should
	sure it makes	break up this	start	spelling.	believe then	ban plastic
	sense X2	sentence?		How do	follow with	bags
	-Reread	-when reading		you	because	-(1) For
	(punctuation)	this, where do you		think	-I think this	example,
	-rereadnew	naturally take		you	sentence does	-is the oil
	sentence starts	pause?comma		spell	not really	used to
	X3	-start new		this	flow add	make
		sentence here		word?	more	plastic
		-where in this list,		X2	information	bags? If so
		you need to add a			afterto	you will
		comma?			explain why. (1)	need to
					-you have	explain this,
					repeated this.	if not you
					Do you need it	might need
					here?	to delete

		-I am unsure -they should
		this is true, plus be banned
		you repeat
		yourself
		-do you really
		need this
		sentence? It is
		not supporting
		your argument
Aïsha	-is the full stop in -love this	-nice closing -we don't
	the right place? sentence!	sentence need this as
		-nice restating you've got
		sentence "in this
		-nice sentence essay"
		starter for the -change "it"
		counter to plastic
		argument bags" so your
		reader knows
		what you are
		talking about

Zoya		-these is a place,			-add "than the	-replace "so"	
		what do important			other options".	with	
		places need at the			This will add	"because"	
		start of the word?			more	-change in	
		-add space			information to	the zoo this	
					the sentence- so	to in the wild/	
					we are	ocean/sea	
					comparing	-add	
					plastic bags to	"however"	
					something		
Ahmed	-reread. Does	-capital letter x4	-great	-you have	-does this need	-what could	-give your
	not make sense	-how could you	start	structured well	to be here or	be more	essay an
		break up this	-great	with PEER	have you	formalthan	interesting
		sentence? X2	paragraph	-great restating of	repeated it?	heaps?	title
		-is this a question?	-please	your paragraph	-how could you		-I think you
		What does it need?	work hard		make this part		should add
			to finish		stronger for the		a word
			this		reader?		after
			[student				because to
			was away				finish the
							sentence

for two	
weeks]	

Note. LCC Rich students are highlighted in green, LCC Poor in pink and LCC Middle are highlighted in yellow. Each theme has been alternatively highlighted in a shade of grey.

4.5 Comparison of feedback between Phase Two and Phase Three

It is interesting to compare the feedback that was provided to students during Phase Two and Phase Three. During Phase Three, when students were asked to write their second piece of writing, students were provided with more feedback than during Phase Two and both LCC Rich and LCC Poor students were provided with more feedback during Phase Three. Only LCC Middle students received less feedback as the chart below demonstrates.

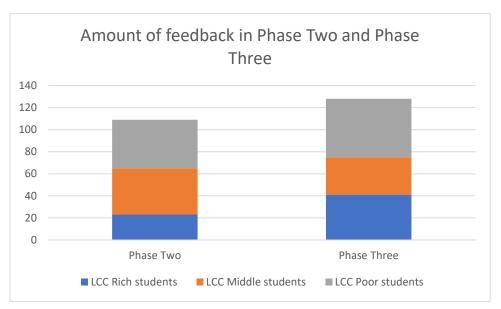


Figure 10 Amount of feedback provided during Phase Two and Phase Three

Students across the three groups were provided with more feedback in the categories "surface language features" and "organisation" during Phase Three.

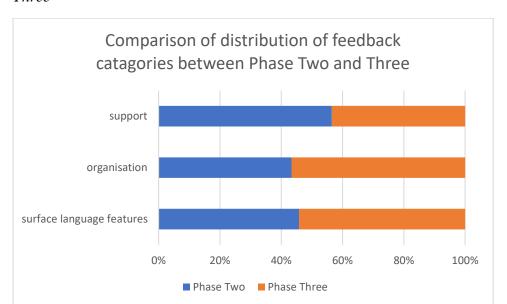


Figure 11 Comparison of distribution of feedback categories between Phase Two and Phase Three

4.6 Students' writing achievement

Although National Standards in New Zealand ended at the end of 2017 after being in place for seven years, the case study school has continued to use the standards, as well as using the e-asTTle assessment tool to assess students' writing achievement and progress (see section 4.2.2.1). The participating teachers were expected to use these writing National Standards in their class.

Analyses were conducted on the Overall Teacher Judgements (OTJ) the two teachers provided for their students ranging from the end of 2017 (when students were in Year 7) to the end of 2018 (when students were in Year 8). Students were expected to move one grade during this time. The National Standards were based on the New Zealand Curriculum and included a qualitative component such as E for "early" and A for "working at level". For instance, a student at the end of Year 7 was expected to work at National Standard Writing Level 4E and ought to achieve 4A by the end of Year 8.

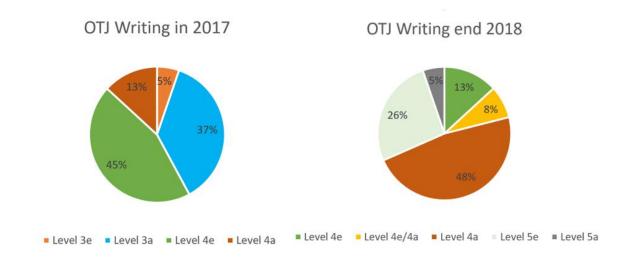
The analysis of students for the whole class as well as of the 10 target students shows the majority of students' OTJ moved up by one grade, from Level 4E to Level 4A. By the end of 2018, no students were working below the Level 4E, and some students had even reached Level 5. These are described in the next section.

4.6.1 Analysis of OTJs for the whole class

At the end of 2017, 45% of the students were at the expected Level 4E of the National Standard. A shift during 2018 can be noticed as by the end of the year 48% of the students had reached the National Standard 4A. It is an increase of half a standard, which was expected by the school. Furthermore, it is important to note that 31% of students were above the expected level at the end of Year 8 (combining Level 5E and 5A).

At the end of Year 7, 42% of students were below Level 4, some five percent were even working at Level 3E. By the end of Year 8, no students at all were below Level 4E. Only 13% were at Level 4E, which was the expected level for the end of Year 7. Eight percent of students were working between Level 4E and 4A. The charts below illustrate the comparison of students' writing achievement based on their OTJs in 2017 and 2018.

Figure 12 Comparison of students' writing achievement based on their OTJs in 2017 and 2018



4.6.2 Analysis of OTJs for the target students

Out of the 10 target students, six students were at the expected level at the end of Year 7, whereas two were at Level 3A and 2 were at Level 3E. Already by Term 3 of 2018, a considerable shift in their OTJs was noticeable as four students were now working at Level 4E and six students were at Level 4A. By the end of Year 8, the distribution of the OTJs in writing was as follows: Three students were at Level 4E, four students at Level 4A and three students achieved Level 5E, which is above expected learning outcomes. The table below aims to demonstrate the e-asTTle results for the target students regarding their writing achievement from 2017 to 2018. To ease reading, I have highlighted in pink students who work at level, in grey students who work below the standard and in green students above the standard.

Table 9: e-asTTle writing results for the target students from 2017 to 2018

	2017	mid 2018	Term 3 2018	end 2018
3e	2	0	0	0
3e/3a	0	2	0	0
3a	2	0	0	0
3a/4e	0	2	0	0
4e	6	0	4	3
4e/4a	0	6	0	0
4a	0	0	6	4
4a/5e	0	0	0	0
5e	0	0	0	3
5a	0	0	0	0

Note. Students who work at level are highlighted in pink, in grey students who work below the standard and in green students above the standard

The table above shows clear shifts in the target students' e-asTTle writing achievements from the beginning to the end of the investigation. The most significant shifts for LCC Poor students were experienced until Term 3 2018; indeed, the two students working at Level 3E at the end of 2017 saw their OTJs move to Level 3E/3A by mid-2018 and the two students working at Level 3A increased their Level up to 3A/4E. Furthermore, one can see that these four students reached Level 4E by Term 3 2018. From these four students, only one student's OTJ shifted to Level 4A, as three students stagnated at Level 4E.

Students who were working at expected Level at the end of 2017 (Level 4E) saw a steady shift occur in their OTJ. The six students' OTJs went from Level 4E at the end of Year 7, to Level 4E/4A in mid-2018, then Level 4A by Term 3 2018. Three of these students stagnated at Level 4A until the end of 2018. However, three of these students managed to reach Level 5E by the end of their Year 8

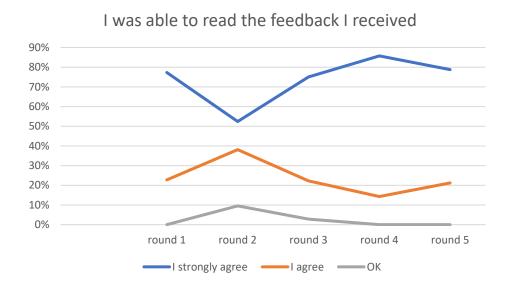
4.7 Exit surveys analysis

Five rounds of exit surveys were collected. The first three were given during Phase Two, when students wrote a persuasive text regarding Matariki, and the last two surveys were completed when students wrote a text regarding the ban of plastic bags in New Zealand. Due to normal fluctuation in attendance, there was some variation in the number of students completing the

surveys. During Round One 22 students filled in the surveys, while 21 did in Round Two, 36 in Round Three, 35 in Round Four, and finally 33 students completed the surveys during Round Five.

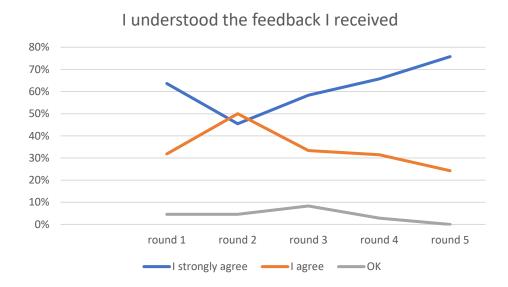
The deciphering of the feedback did not seem to have been an issue for the students taking part in this research as Figure 13 below shows that almost all students were able to read the feedback their teachers gave them from Round One onwards. Round Two occurred when the students came back from a two-week winter break. This might explain the odd results when students were asked if they were able to read the feedback comments they had received.

Figure 13 Exit surveys: Question one



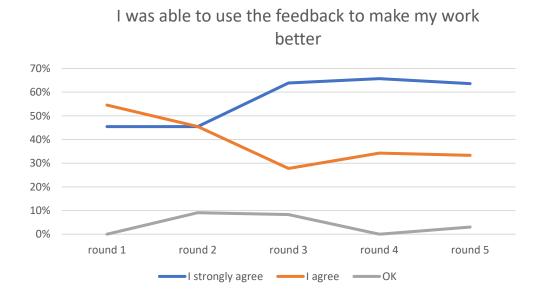
Students' comprehension of the feedback was not an issue either during this investigation as almost all students understood the feedback they were given. It is interesting to notice a shift in the increase of students who strongly agreed. At the beginning of the research, 64% strongly agreed they understood the feedback while 76% strongly agreed at Round Five (see figure 14 below).

Figure 14 Exit surveys: Question two



As mentioned earlier, the third question, "I was able to use the feedback to make my work better", was the question which saw the biggest shift in students' answers. As Figure 15 demonstrates, at the beginning of the investigation, 45% of students strongly agreed that they were able to use teacher feedback to improve their work. At the end of the research, 64% strongly agreed the use of feedback helped them improve their work.

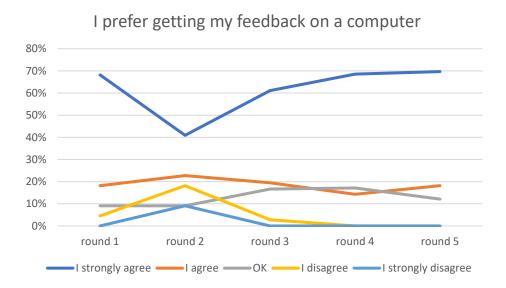
Figure 15 Exit surveys: Question three



The data from the last question of the exit surveys, "I prefer getting my feedback on a computer than in my book", was very interesting as, for the first time in the research, students answered "I disagree" and "I strongly disagree". In saying this, it is important to note that they answered

negatively mainly during Round Two, which has been identified as a special pattern. As figure 16 clearly shows, the majority of the students were satisfied with receiving their feedback on a computer.

Figure 16 Exit surveys: Question four



To conclude, the data collected from exit surveys showed the majority of the students were able to read and comprehend the feedback they received. Furthermore, most of the students were able to use this feedback to improve their work and were happy to be provided with feedback on a computer instead of in their books.

Overall, the data collected seemed to be quite consistent across the rounds, except for Round Two which occurred the first day back from the winter school holidays. It is also interesting to note a shift in the numbers of students being able to use the feedback they had been provided with to make their work better during the investigation.

4.8 Final online survey

During the evaluation phase of the investigation, 30 students were asked to fill in a quick anonymous questionnaire on Google Forms. Students were presented with six questions of which two required a short-typed answer. For the other four, they had to either answer on a continuum from one to four (one being the least helpful) or tick a box which best represented their situation (see appendix 14).

Students' responses indicated students had found the use of Google Docs had made the provision of feedback easier and more explicit. It also helped them redraft their work.

Furthermore, students commented on the fact that the auto correcting feature was useful. Additionally, they appreciated being able to see the sentences which needed to be amended, highlighted and linked to their teachers' comments. However, students expressed that it is the substance of the feedback they were provided with, which made a bigger impact in their learning of the persuasive writing skills rather than the use of Google Docs and its features.

When asked if Google Docs had been helpful when submitting their work, 97% of students (29 out of 30 students) revealed that the use of Google Docs was very or extremely helpful. Only one student expressed that she found it was not at all helpful.

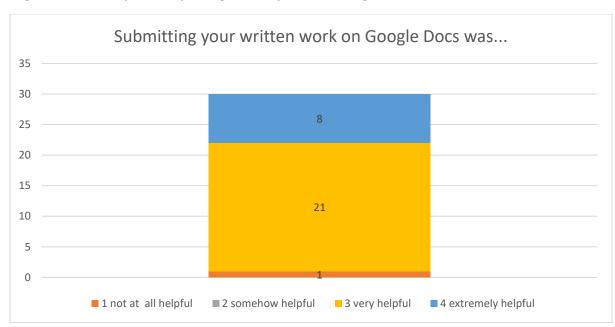
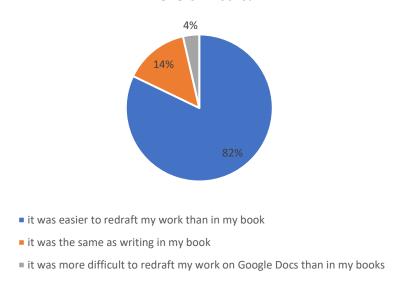


Figure 17 The usefulness of Google Docs for submitting written work

Furthermore, 82% of the surveyed students indicated that writing on Google Docs allowed them to redraft their work more easily than when they used their books. Fourteen percent showed that redrafting their written pieces either on Google Docs or in their books was comparable. Finally, only one student expressed that she has found redrafting her work in her book easier (NB: not the same student as above).

Figure 18 Redrafting written work in Google Docs compared to traditional books

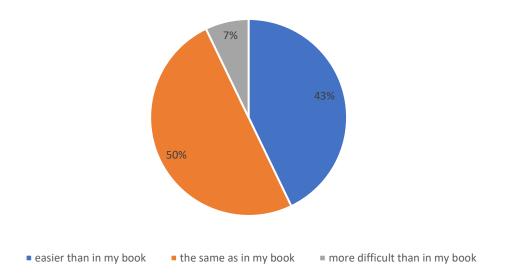
Have you found that writing on Google Docs allowed you to revise/ redraft your work more easily, the same or was it more difficult?



When asked about written feedback, data is quite interesting. Regarding if the use of Google Docs eased the comprehension of the feedback they received from their teachers, 50% (or 14 students) of students communicated that they understood feedback as well on Google Docs as in their books. In other words, the use of Google Docs did not help them understand the feedback better, but it did not hinder it either. Forty three percent of the students (12 students) found however that they understood feedback better when provided on Google Docs. It is fair to notice these data are quite close. Two students found feedback easier to comprehend when written in their books.

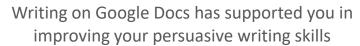
Figure 19 The use of Google Docs in understanding written feedback

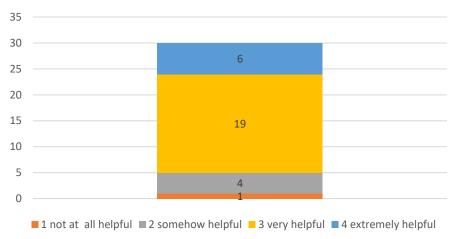
Was it easier, the same or more difficult to understand your teacher's written feedback when she provided it on Google Docs?



When surveyed if the use of Google Docs supported them in improving their persuasive writing skills, 83% expressed that writing their piece of work on this online writing collaborative platform was extremely or very helpful. Sixteen percent of students found that Google Docs was somehow or not helpful at all.

Figure 20 Google Docs role in improving persuasive writing skills





The quantitative data is quite different from the one collected qualitatively via the survey. Seven students commented that it "did nothing for my writing" or that "it is just the same as writing in a book". However, six students mentioned that the use of Google Docs supported their learning of the persuasive writing genre communicating that "it auto corrects" and that "it fixes your mistakes". Furthermore, five students indicated an idea of speed when Google Docs is used. For instance, students commented "I got work done faster" or "it didn't take as long as writing by hand". Four students communicated that it was the feedback they received on Google Docs that had helped them improve their persuasive writing genre. They wrote:

"Google Docs is easy to receive feedback", "the comments", "comments could be made more easily".

Additionally, three students declared that the use of Google Docs allowed them to redraft their work more easily. One student wrote:

"Also it is a lot easier to do it on docs because we can re edit without leaving big crossing out marks".

The last question of the anonymous survey asked students to provide an example of how they had made use of their teacher's feedback to improve their persuasive writing skills. Students expressed that they did what was suggested by their teachers. Indeed, eight students wrote similar comments to "I took her advice and replaced my writing with what she said" or "I did what she said".

It was the support from their teachers via the comments they received that students found useful in improving their persuasive writing skills. Four students made similar comments as "It gave me better ideas on how to complete and edit my work" or "I got stuck with a sentence and I didn't know how to word it. So I left it and then when I had came back the teacher had given me a great example". Further to the support they received from their teachers, students commented on the fact that each comment made by their teachers on Google Docs highlighted the sentence(s) where the error(s) occurred. This feature was thought to be useful by three students who made comments such as "When they have made a comment I can easily see what they are talking about and I can easily change it or comment back if I don't understand".

Furthermore, two students found that the feedback received helped them editing their work as "fixing and redrafting was so much easier". Another couple of students thought that the use of the structures provided by the teachers (PEER/ PEEL structure- see section 4.2.1.2) supported them in improving their writing skills. One commented "I used the peel structure more than books".

To conclude, the use of an online collaborative writing platform such as Google Docs was perceived by students to be helpful when writing as it allowed them to redraft their pieces of writing more easily and some of its features, for instance the auto correction, permitted them to produce more work of a better quality. However, students did not say that the use of Google Docs improved their persuasive writing skills as they pointed out that it was the feedback they received which helped them more.

4.9 Students' focus group interviews

The target students were interviewed at the end of the investigation to evaluate their experience in the study. To make the interviews easier and more manageable, the target students were divided into two groups although the two interviews occurred on the same day, before and after morning tea. The conversations were audio recorded and transcribed by me. A thematic analysis was applied to the transcripts and the main theme surfacing from this analysis was the Framing of the Pedagogic Discourse and its variation. In other words, students conveyed a pedagogical situation where, in some aspects, they experienced a strengthening or a weakening of the Framing. When analysing students' comments, it became apparent that, although both ends of the continuum of the Framing could be witnessed, the pedagogy experienced by students during this investigation saw predominantly a strengthening of the Framing.

4.9.1 Strengthening of the Framing

During the interview, students' comments showed that as learners they experienced a strengthening of the Framing of their understanding of the persuasive writing genre. This strengthening occurred because of the use of exemplars, rubrics and teacher provision of feedback.

4.9.1.1 Resources provided by teachers

Framing in the Pedagogic Discourse was strengthened by the teachers using resources such as the exemplars provided by the Ministry of Education on TKI. These exemplars are called "Matrices of progress indicators" (see section 4.2.2.).

The participating teachers provided these exemplars to their students and explored each matrix in class to decide at which level of the New Zealand Curriculum students could be graded. Matrices from Level 3 to Level 5 were provided. Students had to justify why each piece of writing was at a certain curriculum level, and they had to identify persuasive writing structures or lexis (Ministry of Education).

The target students provided only positive comments about these matrices and exemplars. Students mentioned that these matrices helped them with "the vocabulary", "the structure" they should use in their persuasive writing and more generally "how to write". They also mentioned that the exemplars became a motivational goal to aim for in their writing as well as setting writing expectations. As Becca (LCC Rich student) explained:

It pushed you because the standard was set at a high standard. It makes you realise what you want to achieve.

Poppy (LCC Middle student) also pointed out that these matrices could be good motivators for reaching the next step in their learning:

Those examples were like "o yeah I really should push myself to be at that level".

LCC Poor students mentioned that these matrices were supporting them in making what had to be learned more explicit, as students could see, with the help of their teachers, "where they'd gone wrong" using the exemplars. Fahrid, an LCC Poor student, even commented:

You sort see the language they use, you see the PEER structure, and there are like ideas and stuff.

Some target students were quite clear that the exemplars served as a source of inspiration, for instance looking at the "persuasive language", but that they should not "copy it" but instead "be yourself".

In addition to being motivators, these exemplars were said by students to help them self-assess and take action. Vincent (LCC Middle student) explained:

It showed what you should aim for, and probably where we were at, and what we should be doing, and it gave us an idea... mostly the one above us gave us more vocabulary and structure. How to do it.

Students found the persuasive writing skills rubric (see section 4.2.2), which the teachers created and students had glued in their books very helpful as it allowed them to self-assess and take action, as Poppy explained:

Yeah, explain it and show where we should be, what level we should be at, at our year level, and what we should be working towards for next year. They can maybe tell us where we are at.

It seems that this rubric became a self-assessment schedule, which students could use to reflect on what teachers were "marking on, the stuff they are actually looking for". Similar to the exemplars, this rubric came to represent the "goal" students were striving towards.

Although for many target students this rubric was clear, it was not the case for all. A LCC Poor student, Aïsha, expressed some contradictions about the clarity of this rubric. On the one hand, she made comments such as "It's easy to understand and you can. It's quite straightforward", on the other she mentioned "some of the things I don't know what it's saying."

In addition to the persuasive writing rubric, the two teachers had created a Next Step rubric, (see section 4.2.2.) which exemplified to students what needed to be done to reach the next curriculum level. Only one student, Becca (LCC Rich student) had glued this rubric in her book; all the others declared they had never seen it, or they had "forgotten". This rubric could have supported students in self-assessing as Poppy explained:

It is good to have that one, so you know what to change.

The PEER structure (see section 4.2.1.2) also played a significant role in strengthening the Framing in the Pedagogic Discourse. The simplicity of the language used in the PEER structure by the teachers allowed all the students to understand what they had to do. Aïsha, a LCC Poor student, commented "It's easier to understand and do and write about" and later added "It makes sense". This view was echoed by LCC Rich students. Following the PEER structure

reassured them and gave them a support they could always follow. Mimi, a LCC Rich student, clarified by adding "You always have something to write about". Additionally, Salim explained that they were "just filling out the little sheets and answering some questions" and "that no matter what the topic is you're always going to use the PEER structure".

To summarise, resources provided by the teachers, such as exemplars, rubrics and the PEER structure allowed students to experience a strengthening of the Framing.

4.9.1.2 Digital audio-based feedback

Further to resources, audio-based feedback provided by their teachers has allowed some students to experience a strengthening of the Framing. It is interesting to note that these students were LCC Poor. Listening to audio-recorded feedback permitted these students to comprehend teacher feedback they had not been able to interpret previously. Aïsha explained:

And, like, when it's written you might not, like, you might read it wrong. When it's saying it it's like, 'oh, I understand'.

Further to understanding the audio feedback, LCC Poor students were also able to alter their work while listening to the audio. Zoya mentioned:

I think I found it better because you're not reading anything and plus I think it's better that, um, you get taught to you more because, um, no, I think it's better to record the voice so you, like, um, while you're writing you can listen to it.

Apart from one student, the other two LCC Rich students found disadvantages in using audio-recorded feedback. These negatives ranged from "the voice isn't clear" to they "speak too fast". Another complaint showed students' frustrations regarding the length of time it took to listen to an audio. These advantaged students found it took longer to listen than to skim read, as they were "scrolling back to the start, click play, listening to the whole thing and then going back". For Vincent, a LCC Middle student, it went even further as he got confused by the audio feedback although he was able to comprehend a written one as he mentioned: "and I had to play it several times to get what to do" although "you can read it and then go back".

However, most students were not sure where the errors were that their teachers were talking about in the audio feedback. This created the most reactions during the interviews as Poppy explained:

With the audio, it's kind of the same but it does not show you the highlight. Where did I go wrong?

This view regarding the fact that when teachers provided an audio feedback to students, it did not explicitly point out where they needed to alter their work, has been echoed by Fahrid, a LCC Poor student, when he mentioned:

If they say "fix this sentence" and you don't know what sentence to fix.

4.9.1.3. Digital written-based feedback

Providing students with feedback on Google Docs strengthened the Framing for all students. Three (one LCC Poor, one LCC Middle and one LCC Rich) of the target students commented on the ease of being able to see where they needed improvement as each comment made by the teachers highlighted the sentence on students' work that posed an issue. Fahrid, a LCC Poor student, stressed that he liked that feature and explained:

If you click on the feedback box thingy it highlights where the problem was.

Besides gaining "a lot of time", it also gave students a sense of empowerment as the amendment was not done for them but instead the teachers directed the students in the right direction. Poppy said:

Yeah and it is good for us because we are learning to do it ourselves because she has put it there.

The idea of being able to keep comments and referring to them later was expressed by several students. This shows a deep understanding of the importance of feedback for a subsequent task. Aïsha (a LCC Poor student) even mentioned that "you can remember what to work on" and Mimi (a LCC Rich student) added "when you say it you can forget about it".

To summarise, it can be concluded through their comments during the evaluation phase, that students have experienced a strengthening of the Framing in the Pedagogic Discourse. This has been achieved with the use by the teachers of external resources, such as "matrices of progress indicators", exemplars, a self-produced resource such as a rubric and the PEER structure, and providing feedback on Google Docs. Audio recorded feedback was said to allow Aïsha, a LCC Poor student to witness a strengthening of the Framing but this was not the case for all students. It might actually have done the opposite for LCC Rich students.

4.9.2 Weakening of the Framing

Even if a strengthening of the Framing has been experienced by the students due to, for instance, the provision of audio feedback or the use of rubrics, it is important to note that in some respects the target students in this investigation expressed that, in some circumstances,

Framing has been weakened. Students expressed concerns about the time allocated to increasing their academic knowledge and concerns about students' cultural capital.

4.9.2.1 Time allocated to access vertical discourse

During the intervention, students were given some time to brainstorm their ideas and research the topics they were given. Specifically, they were given time in class to increase their knowledge regarding Matariki and the environmental impact of plastic bags in New Zealand. In the last term of the year, students were asked to write a persuasive writing text under test conditions. Students were only given 40 minutes (one of the test conditions) to produce such a piece of work. This time restriction prevented students from being able to "brainstorm" or even, as Fahrid expressed to "research" facts about the topic they had to write about. Zoya (LCC Poor student) explained:

I was going to say it's better if we get to choose our topic because we'll write more about it because we know about it. More than things that the teacher.

4.9.2.2. Cultural capital

When asked how confident they felt about persuasive writing at the end of the intervention, students raised a point I had not thought about: their own interest in the topic they had to write about. Their comments were not only about liking one topic more than another, but some students were concerned that some of their peers might not be as well equipped as they were to write a persuasive writing piece on a given subject.

In addition to commenting about "liking", students explained that if they could "relate" to the topic, they could "write more", or that they "could have done better" in their writing. Besides opinions about a topic, fairness regarding access to knowledge was commented on by the students. Accessing the restricted codes of the necessary knowledge to complete the task was an interesting point students expressed. They explained that a good topic was "involving everyone" unlike the topic they were given during the test, which was about if students believed that playing a musical instrument was better than playing a sport. The unfairness of this topic resonated with Vincent when he said:

Unlike if we should play sport or music instrument. Some people don't do either. no one can really relate, coz they don't know what it's like to do either or.

After Vincent's comment, Poppy added "And it's kind of sad". Knowing about the topic or being given some time to know about it, was important to the students interviewed as they

"learn a lot more after researching". Instead, they felt that they "just had to write about it". Vincent explained:

We were not skilled enough and we didn't have the knowledge.

The realisation that some students are more advantaged to write about a topic because of their cultural capital was clear when Poppy said:

Or some people don't even play an instrument, like me.

or when Fahrid commented about another topic they had to write about:

Because some people have not travelled a lot.

Later in the interview, students reflected more deeply about the role of cultural capital. They articulated that what an individual brings into the classroom is significant. Fahrid explained:

And with music, you can't really search music, you might have to play music[...] it's all about who [emphasised by tone during recording] you are.

Although a solution to this problem was brought up by a LCC Middle student, it did not convince other students. Nettie, a LCC Middle student, offered that "it would be better if they had two topics and you could choose the one you wanted to do." but Vincent expressed the dilemma students were facing when he explained:

Sometimes, because you have a bit of trouble choosing the one you want to do, but sometimes you have your mind set on something you want to write about.

To recapitulate, the time allocated to increase their academic knowledge and the lack of consideration of students' cultural capital were both concerns for students regarding a successful completion of a persuasive writing text.

In conclusion, the students focus group interview during the investigation's evaluation phase brought to light that students experienced a strengthening and a weakening of the Framing. The Framing was strengthened with the use of resources, such as rubrics and exemplars, and the provision of audio and text-based feedback on Google Docs. The Framing was weakened due to a limited time to access academic knowledge and the lack of consideration of students' cultural capital.

4.10 The teachers' reflections on the intervention

At the end of the intervention, the teachers were interviewed together. They had been provided with the interview questions prior to the interview. The recording was transcribed and then theme coded.

Three main themes emerged from this coding: feedback, persuasive writing and impact of the intervention. The teachers were of the view that the use of an online collaborative writing platform, such as Google Docs, allowed them to provide faster, more personalised effective feedback in greater quantity. Google Docs allowed students to write more and for some students to become more confident in their writing skills. Teachers stressed that it is important to allow students time in class to amend their work after providing feedback. According to the teachers, they, as well as their students, have experienced an increase in attainment during the intervention. Not only had students seen an increase in their grades (see section 4.6.2.) but teachers commented that their own understanding of effective feedback and its provision had been enhanced thanks to their participation in the intervention.

4.10.1 Feedback

Feedback and its provision were the key focus of the intervention. The teachers described their thoughts regarding feedback, the now possible provision of not only text-based feedback on an online collaborative platform but also of audio-based feedback. Teachers also mentioned the challenges they faced regarding feedback and its provision.

4.10.1.1 Feedback

The use of an online collaborative platform when providing feedback allowed teachers to provide timely and more personalised feedback. However, teachers remarked that it had not helped them in providing more dialogic feedback as these conversations were still taking place face to face during the lesson. It is important to note though, that teachers stressed that allocating class time for students to amend their work was crucial in the learning process. Teachers also mentioned that students' attitude towards feedback was different depending on whether they were high achievers or not.

4.10.1.1.1 Characteristics

The teachers commented that the use of Google Docs had permitted the provision of timely feedback as students were provided feedback by their next lesson. Furthermore, the teachers mentioned that they had learnt during the intervention that the feedback needed to be more personalised and more specific and should not relate to the lesson objectives but instead to the success criteria of the task students were completing. However, the teachers commented that the use of Google Docs did not make the feedback more dialogic since they still relied on class time to have a conversation with their students. Instead of being a dialogue, the teachers saw the feedback as a response to their students' work.

• Timely

Teachers commented that their feedback digitally provided was "timely" and that students received feedback "for the next lesson". One advantage of providing feedback in a timely manner was that they felt that "when they [students] are asking questions, it is quite fresh in [their] mind" and that teachers do not need to "reread their writing" as they "don't have time during class time".

Personalised

Teachers mentioned that the intervention had highlighted for them that feedback needed to be more specific to each student's needs. Both teachers commented that they had noticed a shift in the way they were providing feedback. Previously, they had provided feedback according to what they called the WALT of the lesson, or "What we Are Learning To". A WALT was set for each lesson. Teacher B commented:

Before this, I thought you set a WALT for the lesson, and the feedback is for that WALT The intervention had allowed teachers to realise that "it was not just about the WALT". Their feedback had become more "specific" according to Teacher A. She said "instead of giving feedback to everyone on the same thing, it was quite specific, individual students and what they were needing to work on". Teacher A carried on by commenting "it would have been personalised because it was specific to each student and their Writing".

As for Teacher B she commented:

It was more beneficial for the kids. They got more out of it than if I had commented on that WALT.

By being more specific, their feedback had become more personalised, since Teacher B was given "the chance to give them this one on one, and it does not have to be in class".

Dialogic

When asked if they thought that providing feedback digitally allowed a dialogue to take place between them and their students, the teachers felt that "it is not a conversation, but it is a response". They considered dialogic interaction was happening in the physical space of the classroom rather than within the online collaborative writing platform. Teacher A commented:

If I did have some that were unsure what the feedback meant they would probably come to me in the lesson, because I set aside the time in this lesson, I would roam around person to person and check with them "Does the feedback make sense?", "Is there anything you are not sure?". I probably took that chance for that written feedback to

be a dialogue but it might have been more in the lesson, when they were looking at their feedback.

Retrospectively, Teacher A felt that written dialogic feedback did not take place on Google Docs as she proactively checked if students understood her feedback comments.

However, in the teachers' views some dialogic feedback took place because their students altered their work based on their feedback. Students "have made the changes" in their writing and they "pressed the Resolve button" on Google Docs once they had addressed a comment.

Despite the teachers asking questions to be answered by students in their Google Docs, students rarely took the opportunity to answer underneath the teachers' comments. They did however, amend their work according to the comments they received. Teacher A commented that students might not have been aware of the dialogic characteristic that feedback should encompass to be effective.

Maybe they don't understand that the conversation can sometimes be useful. They go "this is what I need to fix, so I fix it, do I need to tell what it was again?".

Teacher B when she furthered Teacher's A comment suggested that answering feedback might have been seen as superfluous by students:

Yeah. As adults we don't like doubling up our work!

Furthermore, teaching habits are hard to change. The teachers were used to giving feedback verbally during class time. Teacher A's comment below highlights that not only students rely on face to face verbal feedback but also do teachers:

But a lot of them I'd be "do you get it? Do you need help?". I want to explain to them verbally, but they were fine. I suppose it is what you are used to doing, and to break that habit I had to remind myself "I don't have to verbally explain it, I have written it for them".

Despite the fact that the use of Google Docs did not seem at first sight to allow a more dialogic interaction between the teachers and their students, it could be argued that, since students altered their work according to the feedback their teachers had provided, this alteration could count as a dialogic exchange.

4.10.1.1.2 Necessity to allocate class time for students after feedback's provision

The teachers were emphatic that students needed to be provided with timely feedback, but further they needed to be allocated some time to amend their work after being provided feedback. Indeed, Teacher A stated students must "have the time to action it and mak[e] the

changes" as "it was a very vital part [...] it is really important. Time to sit down, read and think about it". Teacher A carried on by adding that she was "surprised how long it can take them to action that feedback". Reading, understanding, internalising the feedback and amending their work accordingly was thought to be a challenging task for some students, especially if the feedback received required them to "expand on the idea" or check if "this sentence make[s] sense". Such alteration "would take them longer" than if the feedback referred to punctuation for instance.

According to Teacher A, where the feedback was provided, on the students' books or on Google Docs, did not really matter as long as students were given time in class. Teacher A commented:

To actually make the time to give regular feedback and to then give the kids time to action that feedback. I think this is the biggest thing. That it is in books or on Google Docs, they need that feedback and they need time to look at it, and then do something about it.

This view was echoed by Teacher B as she thought that the time in class was "a very vital part". In other words, the teachers thought feedback needed to be timely, given on a regular basis and most importantly there needed to be some time allocated for students to amend their work.

4.10.1.1.3 Students' literate cultural capital and feedback

The teachers stated that they had noticed that students had a different approach towards feedback; some students sought out feedback as Teacher A commented:

Mimi [a LCC Rich student] would quite often ask the question first before I give her feedback, "Am I on the right track? "or "Does this make sense? "What else do I need to add?".

Since they were more likely to comprehend the feedback they received, LCC Rich students were seen as needing fewer explanations. Therefore, teachers felt that these students justifiably received "only one or two comments" as Teacher B stated. Teacher A commented that they were the "last group to be seen, near the end of the week because they didn't need an extra day" unlike the "lower group". Furthermore, the teachers were aware that the feedback LCC Rich students received did not have the same focus as other students' feedback. Teacher A explained:

I have narrowed my higher one. We have quite a focus on using a wide variety of punctuation. They have amazing writing, but they still only use full stops, capital letters and commas. So, we were looking at using semicolon and parentheses and all of that in their writing just to add more variety.

Although it seems these feedback comments focus on surface language features, such as punctuation, it is important to note here that LCC Poor students were not expected to use semicolon. Only LCC Rich students who had apparently mastered basic punctuation were initiated to and expected to use a wider range of punctuation.

The teachers believed that their feedback comments had supported students' learning and their confidence. Teacher A commented:

I have noticed a huge difference in Mimi [a LCC Rich student], she is not confident in anything. She was at level, but she is gone from 4E at the start of the year and 6E. I can't fault it, it was teacher assisted. She uses the right punctuation, different length of sentence for impact, all her paragraphs are well structured, she uses persuasive writing language, she's got evidence, she has quotes. For her to feel confident and produce strong writing, last year, she used to write all of her writings in one big paragraph. She is the kid who writes PEER down the side, so she makes sure she can follow.

As for the LCC Poor students, the teachers deliberately provided them with feedback at the commencement of a task, so it allowed teachers to ensure that these students were "on the right track" to comprehend the. Teacher A explained:

Your lower levels might need feedback right at the start to make sure they are on the right track.

Furthermore, the feedback these students received was "quite specific with me checking their understanding".

To ensure that students who needed the most support got it, teachers started to prioritise students and planned which group was getting feedback first. Due to time constraints, both teachers had to provide feedback to their five target students first, followed by LCC Poor students, then students at level and finally LCC Rich students. Teacher A explained:

I always did my 5 and then I would do my lower groups and I'd work my way up.

Since LCC Poor students "needed more our help", they became a priority for their teachers who saw this as "an acceleration thing". In other words, students who were seen as needing more support were taught the next learning step before other students in the class. The students

qualified as "at level" received fewer comments again than LCC Poor. In other words, both teachers explained that they prioritised students who received feedback, with the target students first followed by the LCC Poor, and that they gave more comments to LCC Poor students than any other group of students. Teacher B commented:

I have prioritised. I have done the 5 students [target students]. Then I did my lower kids, and then as I go into my "at level kids" the comments weren't as many.

To conclude, teachers prioritised which groups of students received their feedback to ensure they could comprehend the task better.

4.10.1.2 Feedback provided digitally

During the interview, teachers commented that the use of Google Docs had permitted the provision of more feedback, which was also more explicit. This section presents teachers' views of the advantages of digital written feedback and their experience in providing audio-based feedback digitally.

4.10.1.2.1 Written-based feedback

The use of Google Docs allowed teachers to provide "*more feedback*". Teacher B commented that unlike students' books, where teachers' comments were cramped on the side of the page, Google Docs permitted teachers to place more and longer comments:

[Comments are] more detailed. And because you've got the space to do it. When you get the books, you've got nowhere to write feedback. With Google Docs, you can actually give them FEEDBACK [emphasised by tone during recording] and they can read it.

The feedback was more personalised as "not one person got the same feedback" and was thought to better cater to students' learning needs. Teacher A commented:

Instead of giving feedback to everyone on the same thing, it was quite specific, individual students and what they were needing to work on.

One reason that the use of Google Docs when providing feedback can be more specific and more personalised is that each feedback is linked to a sentence or a word written by the student. When the teacher placed a comment, the sentence or the word with an issue was highlighted. This feature supported students in recognising easily where they had committed an error. Teacher A explained:

You can highlight a specific sentence, "this is the bit that does not make sense, just look at this bit, what can you do?". Rather than writing a comment at the end "there is a

sentence that does not make sense" and they have no idea what sentence you are talking about.

4.10.1.2.2 Audio-based feedback

The other type of digital feedback provided by the teachers in this investigation was audio-based. Both teachers audio recorded their feedback once only as they did not find the experience very pleasant. They considered audio recording their comments did not add any value to their feedback. Teacher B explained:

It was the same kind of feedback [...] it was just a recorded comment.

Furthermore, since they needed to record their comments in a quiet place, it was an inconvenience to do this as teachers had to alter their practice and could not multitask as Teacher A commented:

I also felt a bit weird sitting at home, in a quiet room because I can't have the TV on or the music playing while you are giving feedback.

Further to being an intrusion into their personal lives, no gain of time was noticed to persuade the teachers that providing audio feedback could be efficient. Actually, it was remarked that they "had to re-record two or three times because I had mumbled my words or something" or that they had to "practise" what they were going to say. Teacher A pointed out that typing might be easier as it gives her the possibility to redraft:

When I am typing, I edit as I go, than when you are speaking, especially because you want to be clear, you don't want to be waffling and going all over the place.

Despite the fact that audio recording their feedback was simply a comment that had been recorded and was time consuming, teachers admitted that the use of audio feedback had some advantages such as supporting them in making things clearer for students. For instance, teachers could read out loud sentences that did not make sense "so they [students] could hear what it sounded like". Teachers have also given an "example" to support students' learning of sentence structure. Additionally, audio recording comments allowed teachers to provide feedback, which might have been difficult to write as Teacher B explained:

It was a bit hard to type what I was going to say.

To conclude, audio recording their feedback was not a pleasant experience for the teachers as it was too time consuming.

4.10.1.3 Challenges of providing regular feedback

Although providing feedback appeared to teachers as beneficial for the learning of their students, they recognised some challenges regarding the provision of regular feedback. The main constraint they raised was how "time consuming" it was. The idea of giving feedback to "30 kids" was a challenge for them. Another challenge the teachers faced during this investigation was the "number of kids who could not care less". Teacher A commented:

You know that you would be writing this amazing feedback and you know that they are not going to read it or take it... Not read it but they don't care, at times, I was "why am I even doing this? Are they even going to ...?".

However, when I asked them to identify these students who did not care, the teachers only gave four names. When I pushed Teacher B to add "I know! When I started to give names out loud, I realised it was only a few".

In order to mitigate these challenges, the teachers came up with ideas such as "stagger[ing]" and "prioritis[ing]" feedback to make the provision more time manageable.

To conclude this section, despite a few challenges in the provision of feedback, teachers have recognised the importance of providing students with feedback. They stressed that it was necessary to allocate time in class to allow students to amend their work based on feedback. Audio recording feedback was perceived as too time consuming to be consider a better option when providing feedback.

4.10.2 Writing

Teachers thought the use of Google Docs helped their students develop and enhance their persuasive writing. They also commented that having easy access to computers was an important factor of the success of the intervention. Furthermore, the teachers mentioned that the use of success criteria, exemplars and rubrics was essential for students to be able to assess and improve their persuasive writing.

4.10.2.1 Online collaborative writing platform

The use of an online collaborative platform was perceived by the teachers as allowing students "to write more". Teacher A commented:

On Google Docs, we have got kids who write more, they are giving you more of their learning.

Teacher A gave a specific example of one boy who had written very little the year before and was now writing a lot since he was using the support of a computer:

I had this boy last year and I could not get more than a couple of lines, every piece of writing. I was pulling my hair out. There wasn't anything to mark. And he is producing A MAZING [emphasised by tone of voice during recording] writing on the computer. He is showing what he is capable of doing now because he has a tool.

The fact that students wrote more was explained by the teachers as they "enjoyed writing more" or "they feel more confident in what to do". In other words, the use of Google Docs could ease the process of writing for students and boost their confidence or teacher provision of feedback via Google Docs, or some features offered by Google Docs such as auto correction for example. This view was echoed by students who commented that they liked the highlighting of the text of which the feedback referred to.

Additionally, students who are "perfectionist" and who do not "like things looking messy" could redraft and polish their work more easily. Another advantage was that LCC Poor students found it easier to type than to write as Teacher A explained:

Our three lowest groups can write straight on computer, because writing by hand is going to be painful to try to get them to get them finished and to actually be at the standard we know it can be.

4.10.2.2 Resources

Resources, such as computers, success criteria and the Chrome extension were perceived as playing a major role in ensuring feedback provided on Google Docs was effective.

4.10.2.2.1 Computers

The two teachers expressed that such an investigation would not have experienced the same results for students and teachers if it had occurred in what they called a "single cell classroom", or traditional classroom. They believed that a low ratio of access to computers was necessary to witness success. Teacher B commented when she was asked if she would share her experiences with other teachers in her school:

There is 1:2 ratio, so realistically in a normal classroom, it would not work because each child would not get the chance to do their writing on a computer. So taking this and giving this to our staff, although I love this and it works well in our classroom, it wouldn't work well in our school because of the way the classrooms are set up.

The teachers thought that students needed to have regular access to computers to complete their work if they were expected to write on an online platform.

4.10.2.2.2 Success criteria, exemplars and rubrics

Further to access to computers, success criteria, exemplars and rubrics were thought to be essential to the success of this intervention. The teachers gave students exemplars without showing them what grade they would be and students had to assess each exemplar and decide in groups at which level of the curriculum they would be graded. Teacher A commented:

One week when we gave this [rubrics] to them and gave them some examples of persuasive writing, and have them [students] level them [the exemplars] using these [the rubrics].

Despite having created two rubrics for the persuasive writing genre, the teachers admitted they had not made references to both during their teaching. They had privileged the use of the persuasive writing criteria rubric over the Next Step rubric. The teachers felt it would have been better to use the rubrics from the start of the year. Teacher B added that it would have been "interesting to use it [the rubric she co-created] since the beginning of the year. We are half way through, our kids know this one [the e-asTTle rubric]".

They pointed out that they made more use of the e-asTTle progress (see section 4.2.2.1) rubric which they felt more comfortable with because they had worked with it for a couple of years and it was the rubric used across the whole school. Teacher B explained:

I always look at that one [the e-asTTle] because it is the one for all writing and it is the one we use in the whole school... it took a while but my head is completely wrapped around that.

Teachers were able to "look at a piece of writing" and know the level of the student's work "without having to refer to" the e-asTTle rubric because they had received plenty of support from the school for its use, as Teacher A commented:

We also have folders that have detailed breakdown of each of those as well as exemplars for the different genres of writing for the different levels. For each genre there are 6 or 7 exemplars that have been levelled, so you can compare what you are looking at compared to what they [other teachers in the school] marked.

Teacher B furthered Teacher A's last comment with:

We were beginning teachers last year, we had an extra one or two meetings if you had never seen it.

Additionally, to "moderation meetings", teachers were also able to "sit down together" and

grade students' work using the e-asTTle rubric. Knowing the inside out of a rubric seemed important for the teachers in their choice of using it.

The teachers were asked if they had fully explained the e-asTTle rubric to their students. Although they had only explained "bits" or they had explained it "last year", they recognised the importance for students to fully comprehend it, as Teacher B "think[s] it is important for them to know it". She added that she was planning to use it even more next year since students have found it useful:

It would be good that next year, we make sure we go over [the e-asTTle rubric]. That's what I did last year and I enjoyed it. And the kids love looking at...where they need to go.

4.10.2.2.3 CheckMark

Another resource mentioned by the teachers, which was used for the provision of feedback on Google Docs was CheckMark. This free Chrome extension allowed teachers to provide written comments on Google Docs in a faster manner as teachers can record comments they often use. Thus, they can place a feedback comment by simply clicking on the one they have saved in a "comment bank". This extension was helpful when writing the same comment for several students, as Teacher A commented "was good for some things you would say all the time".

However, due to hiccups after some updates which had erased all comments saved, teachers did not use CheckMark as much as they had originally planned.

They stated writing small comments "doesn't take me long to quickly type" so they did not need to use CheckMark. To be more personalised, teachers typed feedback instead of using their feedback bank as Teacher B commented:

I would add a comment if I wanted the child to really look at something specific.

To sum up, teachers reported students wrote more and became more confident writers when using Google Docs and students received more effective feedback from them since Google Docs allowed them to provide timely, personalised feedback in a process that was somehow dialogic.

However, in order to replicate such results with other classes, according to the interviewed teachers, it would be necessary to have a computer-student ratio of 1:2. Furthermore, they stressed that the thorough comprehension of exemplars, rubrics and success criteria is crucial to support students' learning. The teachers also made it clear that it is essential that students are offered time in class to amend their work after having been provided feedback.

4.10.3 Impact of intervention

When asked to evaluate this intervention, teachers pointed out how it had supported them and their students. The teachers reported that they had gained knowledge in pedagogy regarding feedback and writing. They explained that they felt more confident now in teaching writing and providing effective feedback. As for students, teachers noted that the intervention had increased students' attainment and confidence.

4.10.3.1 Increase in teaching knowledge

By participating in this design-based research, teachers considered they had gained teaching knowledge. Both teachers stated that until the intervention, they "didn't know what to do next", "hated to teach last year [persuasive writing] because I didn't know how" or that they were "looking at their writing and asking 'where do I start?'".

Upon completion of this investigation, the teachers asserted that they had a better understanding of what persuasive writing is, what they needed to look for in their learners' work, and how to support their students in enhancing their writing skills as this shift was summed up by Teacher A as follows:

I think it has been more beneficial because I feel I know what I am doing more. They [students] are getting more from their lessons because I feel like I know what I am doing, I know the feedback I am giving, I know how I am teaching writing, they are benefiting from that as well. That I am not waffling my way through hoping for the best.

Not only had the intervention "improved [their] teaching practice" since "now I know what to do next, to teach them to get them to improve", but their thinking process had been altered. Teacher A commented:

I always start by looking at the structure...then I would look at their ideas, I sort of work my way through a process.

The teachers also mentioned that they had learned "How to give feedback to kids in their writing in an efficient way" (Teacher B).

4.10.3.2 Students' writing achievements

Teachers were not the only ones experiencing an increase in their self-efficacy. According to their teachers, students saw an improvement in their grades, in their writing skills and in their confidence. Although "they all made that jump" or "made a movement", LCC Poor students furthered their attainment even more as Teacher B commented:

I think I have got my lower group, they a lot of them have really benefited from this, their level achievement have gone up.

Teacher A believed that this increase could be explained by the growth in her self-efficacy in teaching writing and providing feedback:

Thinking back at how their writing was like when they started middle school, I am amazed how far some of them have gone. And I think it is because of the feedback, because I feel like I have done quite a good job at teaching writing this year, and giving feedback and getting them to accelerate.

Some LCC Poor students identified by the school's Senior Management Team (SMT) and the teachers were expected to be accelerated, in other words it was expected that instead of moving half a level per year as the other students in the class, they were expected to move two years worth in that year. Teacher B explained this and pointed out that both teachers had done a good job in moving in this manner 10 students in their class:

Within a year they are expected to move half a level. Our below kids, they [SMT] expect us to accelerate them and they move up a whole level. So we had 30 odd kids, more than half of our class was below in their writing, and they expect us to be able move those whole kids to a whole level, 2 years' worth of level in one year. So I think we have done pretty well, to get that number down from over 30 to nearly 20.

In conclusion, the teachers using Google Docs to provide feedback were able to give faster, more personalised feedback and more feedback. The teachers stressed that allocating time in class for students to amend their work was crucial for them to act upon the feedback they were provided with. LCC Rich students preferred receiving written feedback as they had found listening to the audio-based feedback time consuming.

The easy access to computers for students was mentioned by the teachers to be an important factor for the success of this intervention. Both teachers have found participating in this design-based research to be an informative process as they felt more knowledgeable regarding providing feedback and the teaching of persuasive writing skills. Furthermore, they commented that students had benefited greatly in participating in this intervention as their writing achievement had increased, especially for LCC Poor students.

4.11 Chapter summary

This chapter has outlined that the teachers had agreed to participate in this intervention because they wanted to make use of digital technology in their practice. According to them, digital technology presented some advantages, including that their students were already able to use digital technology efficiently. They also considered the timeliness of digital technology and that Google Docs allowed students to write more and to redraft their work more easily.

From the start of the intervention, the teachers had a good grasp of what effective feedback looked like and they thought that providing feedback was as useful for teachers as it was for students. However, they mentioned some frustration regarding the provision of feedback such as a lack of training during teachers' college, a lack of support from their school, and how time consuming providing effective feedback could be. The teachers also stated they had noticed that not all students seek feedback and behave in the same way when provided with feedback.

With regard to writing, during the intervention workshop, the Toulmin argumentative method was discussed, and a writing structure was agreed upon. This was the PEER structure where students were presented with a framework: P stands for point; E is for evidence; E for explain/elaborate and R stands for restate the point of the paragraph. Two rubrics were created, one for persuasive writing success criteria and one to support students in deciding on and taking their next steps.

Students were then asked to write a second piece about the banning of plastic bags. During this cycle, despite students receiving more feedback comments in total than during the first cycle, the majority of comments were still of surface language features.

While students were writing their first piece, the teachers provided them with text-based and audio-recorded feedback. The LCC Poor students received more text-based feedback than the other groups of students, but the majority of the feedback they received was of surface language features. Almost half of the feedback LCC Rich students were provided with was from the organisation category. However, the LCC Rich students received more audio feedback than the other students and received twice as much feedback regarding organisation than any other groups of students.

Students received more feedback (written-based only) during the production of their second piece of writing than the first one. Feedback comments regarding surface language features were the most given. All written-based feedback during the whole intervention was provided on Google Docs which presented advantages to the teachers. For instance, timeliness, the ease to provide personalised feedback and the space on the side of each page were mentioned by the teachers.

At the end of the intervention, an anonymous online survey was sent to all students. Students reported that the use of Google Docs when writing made the provision of feedback easier and more explicit. They also stated that it was easier to redraft their work on Google Docs than in their books. Additionally, most students pointed out that they particularly enjoyed the auto correcting function of Google Docs, and the highlighting of the sentences which their teachers' comments related to. Students commented their understanding of persuasive writing was strengthened thanks to the use of the PEER structure and the intervention rubrics. LCC Poor students mentioned that the provision of audio-based feedback helped them to better understand the feedback they received.

Reflecting on the intervention, the teachers stated that their understanding of feedback had been strengthened during the intervention. They mentioned that the use of Google Docs helped them to provide feedback and allowed students to write more and become more confident writers. The teachers pointed out that it was a necessity for students to have some time allocated in class to read, comprehend and act upon the feedback they were provided with. As a researcher, I was surprised at the teachers' comments regarding audio-based feedback. Since the literature identified that audio-based feedback presented numerous benefits to students and teachers, I was expecting teachers' comments would reiterate these advantages. However, they stated that providing audio feedback was time consuming and less convenient for them as they could not multitask.

Chapter Five Discussion

This chapter discusses the findings of the investigation and answers the research questions:

- (i) How does teachers' understanding of quality feedback change over time?;
- (ii) How do students perceive, understand and act on written and audio teacher feedback?;
- (iii) To what extent do students' persuasive writing improve when they are given feedback as dialogue through digital technology?

The findings from the three research questions corroborate to answer the overall arching research question: How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive writing genre?

Although the two participating teachers had a good understanding of effective feedback from the start of the investigation, they acknowledged that by the end, they had observed an increase in their pedagogical knowledge regarding effective feedback and persuasive writing. The study offers evidence that their changed practices had benefited their students, as their students' persuasive writing skills had developed when gauged by assessing against national standard. More importantly, there is compelling evidence that involvement benefited LCC Poor students who had been offered audio-based feedback to assist them to access the School's restricted code for persuasive writing.

5.1 How does teachers' understanding of quality feedback change over time?

From the commencement of this investigation, the teachers had a good understanding of effective feedback and could articulate a clear definition (see section 4.1.2.1.1). Furthermore, they were able to identify some of the characteristics of effective feedback for instance, they cited that feedback should be timely and given continuously. However, they were under the impression that to be effective feedback had to be given while the students were writing and therefore, they preferred providing students with oral feedback instead of written (see section 4.1.2.1.1). Additionally, since teachers feared that their feedback might be perceived as criticism by students, they made sure that their feedback contained at least one positive comment to ensure that their feedback encouraged students to continue writing (see section 4.1.2.2). Despite having a clear understanding of effective feedback, the teachers commented

on their frustration about the lack of training regarding feedback during their pre-service teacher education and lack of support from the school. Another frustration they identified was how time-consuming it was to provide each student with effective feedback. Both frustrations encountered by the participating teachers are echoed by the literature (Chalmers et al., 2014; Crisp, 2007; Erickson, 2007; Knauf, 2016). Indeed, the lack of knowledge by teachers and the time it takes to provide effective feedback are two of the reasons commonly identified as why feedback is not regularly and effectively provided to students.

At the end of this research, teachers stated that they had benefited a lot from participating in the investigation as they had gained teaching knowledge regarding feedback and persuasive writing (see section 10.3.1). The teachers claimed they felt more adequately prepared to provide feedback, and their initial thoughts regarding the importance of providing students with effective feedback had been strengthened. Because of this, they stated that the next year they would provide feedback first to their LCC Poor students as an acceleration programme. Building on this understanding the teachers considered they would be able to prioritise who receives feedback, which was one possible strategy they could use to mitigate the challenge of providing feedback which could be time consuming. The teachers reiterated that feedback should be timely, personalised and given continuously. They added that the use of an online collaborative platform allowed the feedback to be more personalised and more specific (see section 4.10.1.2.1). Again, this view regarding the significance of feedback being timely, personalised and explicit is shared by the literature (Black & Wiliam, 1998b; Erickson, 2007; Havnes et al., 2012). It is interesting to note that the literature states that students who benefit the most from receiving feedback are the low achievers (Black & Wiliam, 1998b; Moreno, 2004). By prioritising who receives feedback first, the participating teachers identified that LCC Poor students need more time to process and act upon the feedback they received (see section 4.10.1.1.3).

In summary, the teachers had a sound understanding of feedback at the beginning of the intervention but nonetheless they stated that taking part in the study had reinforced the importance of feedback being timely, personalised and provided in an ongoing way. They had found that the use of an online collaborative writing platform (Google Docs) eased the provision of effective feedback. Furthermore, the teachers commented that their pedagogical knowledge regarding persuasive writing had increased. They also thought that prioritising which groups of students receive feedback was one way of mitigating how time consuming the provision of effective feedback can be. These findings are in line with the literature.

5.2 How do students perceive, understand and act on written and audio teacher feedback?

During this intervention, students' perceptions of feedback diverged regarding audio-based feedback versus oral and written feedback according to their literate cultural capital. Although the target students perceived written-based feedback as helpful, LCC Poor students said they benefited most from audio-based feedback based on their writing. The target students witnessed a strengthening of their understanding of tasks when written-based feedback was provided, but LCC Poor students experienced a particular success when they received audio-based feedback, which was not the case for the other students. LCC Poor students said that they were able to understand what their teacher meant in their feedback.

Another point important to note here is the role played by the rubrics provided by the teachers to support students in comprehending the feedback. During the focus group interviews, students mentioned on several occasions the rubrics they were given by their teachers. Students stated that the rubrics supported them in experiencing a strengthening of their understanding. The target students said they benefited from the use of the rubrics as they exemplified the language expected in their work, they explained what was expected and served as goals for students to aim for (see section 4.9.1.1).

Students commented that their comprehension of the written feedback was similar regardless of if it was provided in their books or on Google Docs. However, some students commented they were able to use the feedback to make their work better when it was provided on Google Docs. Indeed, at the beginning of the intervention, 45% of students strongly agreed that they could use the feedback they received to better their writing compared to 64% at the end of the investigation (see section 4.7). According to the students, one of the features of Google Docs they had found useful was that each feedback suggestion the teachers made was linked directly to the passage(s) the feedback was related to (see section 4.8 and 4.9.1.3). Students as well as teachers commented that the use of Google Docs to provide feedback allowed the feedback to be more explicit since students were able to identify clearly where they needed to improve their writing (see section 4.3.1 and 4.10.1.2). These findings are in line with studies by Chong (2019) and Yim et al. (2016).

Students' comments and actions indicated that they acted upon the feedback they received in two ways. Firstly, they appeared to be compliant and changed their work according to their teachers' feedback. Secondly, they commented that receiving written-based feedback on Google Docs supported them in editing and completing their work as it gave them ideas. In

other words, students did what was asked of them but acknowledged that this feedback helped them in increasing their writing skills (see section 4.8).

It is only when audio-based feedback was mentioned that students' comments varied according to their literate cultural capital. LCC Poor students clearly expressed experiencing a strengthening of their understanding when they were provided with audio-based feedback as they said they could finally understand what was suggested to them by the teachers (see section 4.9.1.2). This was because audio-based feedback was more specific and explicit due to the simpler vocabulary used and the teacher's voice intonation which added emphasis to ideas that were important for consideration. Their comments echoed those of Bauer (2011), Crook et al. (2012) and McCarthy (2015). This view was not shared by the LCC Rich students who preferred written-based feedback as it was faster and easier to read and, therefore, easier to act upon. Interestingly, a LCC Middle student found that receiving audio-based feedback was confusing and that he had to listen to it several times to fully comprehend it, whereas he had no issue in understanding written-based feedback (see section 4.9.1.2). According to the literature, it was expected that all students would benefit from being provided audio feedback because it is more explicit and more personalised (Bauer, 2011; Dixon, 2011; Huang, 2000; Knauf, 2016; Lunt & Curran, 2010). Therefore, it was surprising that only LCC Poor students liked being offered audio feedback.

As a researcher, I was expecting that all students would value audio-based feedback as the literature stated that there were significant advantages to this mode of feedback. I was also expecting that audio-based feedback would become the favourite mode for the teachers as, again, the literature mentioned it had the advantage of ease and speed of provision of feedback. The teachers in the investigation stated that they could not do anything else when providing audio feedback such as listening to music or watching television. This situation could be linked to the idea that teachers are time poor, that they felt that providing feedback is an extra activity and that these teachers were perfectionists. Indeed, they commented that they had to practise their comments prior to recording them and to delete their feedback if they were not satisfied with its quality. The teachers felt more comfortable writing their comments. This could be because of their own literate cultural capital, similar to the LCC Rich students. Another reason could be that writing allows them time to reflect and redraft their feedback.

In summary, although all students reported they benefited from written-based feedback, LCC Poor students benefited even more from being provided with audio-based feedback as it allowed them to experience a strengthening of their understanding of the feedback. As for

teachers, they felt that providing audio-based feedback was time consuming, did not allow them to multitask and they needed to record their feedback several times as they were concerned with the quality of the feedback they were providing their students with.

5.3 To what extent does students' persuasive writing improve when they are given feedback as dialogue through digital technology?

The intervention has resulted in students' improved persuasive writing skills as evidenced by their grades.

Whole class

At the end of Year 7, 45% of all the students participating in this investigation were working at the expected level (4E), 13% were working above and 42% were working below the expected curriculum level. Out of these students working below, 37% were at Level 3A and five percent at Level 3E, or two grades below the expected level. By the end of Year 8, 48% of students were achieving at the expected level, 31% were working above level (of which five percent achieved Level 5A, or one whole level above expected) and only 21% were working below. Out of these students, eight percent were working between the level 4E and 4A, so in other words, they were very close to achieving Level 4A. Thus, only 13% of students were clearly working below the expected level at the end of Year 8.

• Target students

At the end of Year 7, six of the target students were working at Level 4E and four were working below level. Two of these students were working well below the expected level as they were achieving Level 3E. It is important to note that no students from the target group achieved above level at the end of Year 7. By the end of Year 8, four students were working at Level 4A and remarkably three students were working at Level 5E.

Although remarkable, this increase in attainment was expected since the literature states that feedback is what students benefit the most from (Hattie, 2009). Since teachers claimed they understood more about feedback and provided students with effective feedback, such an increase was to a large extent predictable. Furthermore, Google Docs facilitated the provision of effective feedback in the sense the feedback was timely, personalised and given continuously (Chong, 2019; Zheng et al., 2015). Indeed, students wrote, teachers placed feedback, then students amended their work, and again teachers placed feedback (see section 4.10.1.1). Dialogue in a conventional sense did not take place but students writing, teachers providing

feedback, students amending their work, and teachers providing further feedback could be considered a dialogue (see section 4.10.1.1). In addition to their interaction on Google Docs, teachers and students were observed and reported that they talked together about student writing and written feedback. This could be seen to constitute a face-to-face dialogue about their dialogue occurring online.

To summarise, this intervention has substantially improved students' persuasive writing achievement. This improvement was especially noted for LCC Poor students who benefited from the provision of effective feedback from teachers through the use of Google Docs.

5.4 A Bernsteinian perspective on feedback, equity and digital technology

As outlined in Section 5.3, all students benefited from being provided with feedback on Google Docs and LCC Poor students benefited more in the sense that they experienced the most dramatic increase in grades for their persuasive writing (see section 4.3 and 4.6). These findings are generally in line with those from the literature but next I use Bernstein's concepts of Language and tools of recontextualisation to provide a different lens to discuss the findings. This section begins with a brief recapitulation of key Bernsteinian concepts, which I have grouped into two categories: one referring to the systems of Language and the other regarding the tools of recontextualisation. Then I present the key findings of my investigation through a Bernsteinian lens.

For Bernstein, Language holds a significant place in the explanation of the domination of a class over others (Atkinson, 1985). He identifies two systems of Language or codes. The elaborated code allows the speaker to talk about something, which is universal and context-independent. When a code is said to be restricted, it implies that only those who already know or who were initiated to this code can access it (Maton & Muller, 2009; Moore, 2013). Bernstein argues that students from disadvantaged backgrounds or from low SES usually arrive at school without mastering or even knowing the School's code, or School's Language which he describes as an elaborated code.

Bernstein describes the tools of recontextualisation as tools assisting the selection, the relocation and new focus of School's discourse (Bernstein, 1971; Ingram, 2016). Classification encompasses the boundaries between knowledge domains experienced by individuals, such as the boundaries between History and Chemistry (see section 2.6.2). Another instance of Classification is the strong symbolic demarcation between School knowledge and "home"

knowledge (Atkinson, 1985). Whereas Classification is the voice, Framing is the message in the "interactional relation" and is concerned with the transmission of knowledge. Framing relates to pacing, evaluation criteria and sequencing in the Pedagogic Discourse (Willis et al., 2013). It is by altering the Framing that boundaries get altered, control may shift, and teachers can aid students in creating connections with the School's discourse, which Bernstein also refers to as a vertical discourse. Bernstein suggests that there are two types of knowledge, which he calls vertical and horizontal discourses. Horizontal discourse refers to everyday knowledge and vertical discourse to the School's knowledge (Moore & Muller, 2002). Whereas horizontal discourse is unlikely to be transferable to other contexts, vertical discourse may be transferable, since it is not culturally based but instead relates to "symbolic structures of explicit knowledge" (Bernstein, 2000, p. 60).

In what follows, I use these concepts to explain my findings. First, I present the implications of systems of Language in the process of providing feedback. I raise the issue that at the beginning of the intervention LCC Poor students received feedback which was unlikely to support them in enhancing their writing. Then I argue that during the intervention the teachers became aware of the codes students understand and therefore changed the kind of feedback LCC Poor students received. In the second subsection about audio feedback as a recontextualisation tool, I discuss the surprising preference of written feedback by the teachers and LCC Rich students and explain why some LCC Poor students from the target group preferred audio feedback using ideas to do with the codes used in this type of feedback. Following this, I propose that teachers should deliberately modify the School's discourse by using recontextualisation tools, such as audio feedback, which strengthen the Framing and make the meaning of feedback more explicit. Finally, in the last subsection regarding rubrics, I present how surprised I was at first to notice that the teachers did not use the rubrics they had co-created as they reverted to the use of the e-asTTle rubric. I argue that they used the e-asTTle rubric because they had received ample support in comprehending its Codes. I go on to hypothesise that they preferred using this well-known rubric as they might have felt that their rubrics did not belong to the valid knowledge realm. Furthermore, I contemplate the idea that when the teachers created the persuasive writing rubrics they found themselves in the production of knowledge field, a field they do not usually engage in hence do not feel comfortable in.

Implications of systems of Language

During Phase Two and Phase Three, the majority (60/109 and 71/128 comments respectively) of the feedback teachers provided to students were based on surface language features. However, during Phase Three teachers provided more feedback from the organisation category for all students (from 36 to 47 comments). This shift in the predominant category of feedback is important because it is likely to have supported students in improving their persuasive writing by helping them to improve the organisation of their argument (see the Toulmin method in section 2.5.2.1), and by extension the organisation of their whole piece of writing (see the PEER structure in section 4.2.1.2).

During Phase Two, LCC Rich students received fewer comments than LCC Poor students, but the feedback they received was more from the organisation category, or the category which can best support them in enhancing their persuasive writing. Nearly two thirds (64%) of the feedback LCC Poor students received was on language surface features which is less likely to support them in augmenting their persuasive writing skills. Although it is undeniable that feedback about surface language features is important for students' writing accuracy, it does not allow them to comprehend the School's discourse better. While it could be said that LCC Poor students need to develop their accuracy in writing, if the goal of teaching the persuasive writing genre is to support students to become democratically informed and active citizens, it is crucial students are supported to develop the craft of writing persuasive arguments. This can be achieved by providing feedback in the way that it allows the teachers to modify or recontextualise the School's Code and thus to create a bridge between the School's Code and the one comprehended by the student. This recontextualisation of the School's discourse is more likely to be possible if the feedback students received is based on organisation features of persuasive writing. One approach could be that all students receive feedback regarding organisation and then, if necessary feedback about surface language features.

It can be argued that during the intervention, the teachers became aware of the type of codes, elaborated or restricted, students bring to school. Teachers recognised LCC Rich students' codes and thus at first provided students with effective feedback, in other words in the organisation category. The teachers were able to unconsciously identify LCC Rich students because these students are more likely to share the same code as themselves' and the School's (Panofsky, 2003), in other words elaborated codes due to their writing proficiency.

Audio feedback as a recontextualisation tool

The literature reports ample evidence that audio feedback presents advantages for teachers and students regarding the provision of and the understanding of feedback (see section 2.4.1). It was therefore surprising that the teachers preferred providing students with written feedback and that LCC Rich students preferred written feedback (see section 4.9.1.2). Beyond practical matters such as the time taken and the need to re-record comments to ensure clarity, it could be argued that teachers were more comfortable writing comments within the elaborated code because they knew and could easily follow the strict linguistic and syntactic rules. Their preference was also towards written feedback as they could edit their comments as they typed.

On the other hand, some LCC Poor students from the target group preferred audio feedback. In Bernsteinian terms, receiving audio feedback may have supported these students in comprehending the comments made by their teacher because teachers' audio comments displayed restricted code characteristics (see section 4.9.1.2).

As the literature suggests, audio feedback allows teachers to make use of intonation which can assist students in comprehending the meaning of a feedback comment. Aïsha, an LCC Poor student, implied this assisted her when she stated, "when it's written you might read it wrong. When it's saying it, it's like, 'Oh, I understand'" (see section 4.9.1.2). Bernstein argues that teachers need to deliberately modify the School's discourse so students can comprehend it. Discourses are reshaped, or recontextualised, by teachers when they strengthen the Framing of the School's discourse as the teachers in this investigation did when they kept the focus on the content to be taught (strong Classification) and provided LCC Poor students with audio feedback in language and with intonation that students were more likely to not "read it wrong" (strong Framing). The recontextualisation and the strengthening of the Framing helped make the meaning of feedback comments more explicit. On the contrary, it felt cumbersome for the LCC Rich students to have to listen to their teacher's feedback (see section 4.9.1.2). They were comfortable reading written comments. According to Bernstein, this is likely because the LCC Rich students were already succeeding in writing as per school expectations and so they were more likely to be familiar with the elaborated code required.

In summary regarding the provision of audio feedback, findings suggest the teachers were able to use it to create a bridge between the School's code and the code understood by the LCC Poor students. That is, the teachers could be said to have recontextualised the School's code so students could comprehend it (Adie & Willis, 2016; Au, 2014; Singh, 2002). This meant some of these students were more readily able to alter their work using the information their teachers

provided; the teachers' provision of audio feedback allowed these students to access the School's vertical discourse (see section 4.9.1.). Through the provision of audio feedback, teachers "translated" the School's Language and the persuasive genre's code to a code that supported students to decipher the School's Language or code.

Rubrics in the production field and recontextualisation

As the literature suggests, rubrics are a powerful tool which can support students in their learning and make success criteria explicit (see section 2.5.2). This view was echoed by the students who during the final focus group interview commented that they would have liked to use the Next Step rubric as it exemplified what they needed to do to enhance their persuasive writing (see section 4.9.1.1). Poppy, a LCC Middle student, explained this as follows, "They [the rubrics] can maybe tell us where we are at." Students also thought rubrics provided information about the "goal" for their writing and what kind of actions they might take to enhance it (see section 4.9.1.1).

It was thus unexpected that the teachers who worked with me to co-create a rubric for persuasive writing and for 'next steps' did not use them with their students (see section 4.2.2.2). Since they co-created them, I would have thought that the teachers would have fully comprehended these rubrics and seen how useful they would be for themselves and their students. Instead, the teachers reverted to the well-known e-asTTle rubric. The teachers explained that they continued to use the e-asTTle rubric because they thoroughly understood it and that it came with exemplars which made marking students' work easier (see section 4.10.2.2.2). The teachers explained they understood the e-asTTle rubric because they had received ample support from their school and colleagues to unpack it. In other terms, teachers understood the codes in which the e-asTTle rubric was written because they had worked with others to bridge the codes of the rubric into a code they understood.

Additionally, the teachers did not create exemplars to accompany the rubrics they developed, whereas e-asTTle rubrics came with exemplars. The students in the focus group during the evaluation phase commented how useful exemplars can be in supporting their writing attainment because rubrics helped them learn "the vocabulary" and "the structure" they should use and more generally "how to write". Fahrid, a LCC Poor student, even commented:

You sort see the language they use, you see the PEER structure, and there are like ideas and stuff.

I could argue that when teachers co-created the persuasive rubrics, they found themselves in the production of knowledge field within the Pedagogic Device. This is not the typical environment, or field, teachers operate in, since most of the time teachers stay within the field of reproduction of knowledge (see section 2.6.1.2).

It could be possible that the teachers did not feel comfortable within this unknown field and felt that their rubrics did not deserve to be seen as valid knowledge by them or their students. Additionally, it could be argued that since the e-asTTle rubric has been provided by the Ministry of Education, and that sufficient professional development has been provided to teachers within New Zealand, that the participating teachers felt that the e-asTTle rubrics belonged to the valid knowledge realm. Furthermore, according to the teachers their students had already received support from their previous teachers in comprehending the e-asTTle rubric.

Another possibility could be that although they created these rubrics, the teachers might not have fully understood deeply themselves the codes in which these rubrics were written, since they were in what I view to be the elaborated codes. Although the e-asTTle rubric is written using elaborated codes too, the teachers, having received ample support from the teachers college, their school and their colleagues, might have felt comfortable in comprehending the codes of the e-asTTle rubric.

To recapitulate, all students said they would have benefited from using the teacher created rubrics as they exemplified the language expected in their work, explained what was expected and served as goals to aim for (see section 4.9.1.1). In this way the rubrics were seen by students as a recontextualisation tool as also indicated in the literature (Carless et al., 2018; Yucel et al., 2014). However, it was surprising and unexpected at first that the teachers did not use the rubrics they co-created. I had thought that since they created these rubrics, they would want to and be confident in using them. On the contrary, they used the national e-asTTle rubric which was being used across the school. This choice in non-use of the rubrics could be explained by the fact that the teachers did not feel their rubrics were part of the valid knowledge realm. It could also be explained by the fact they might not have fully comprehended the codes of the rubrics they had created. Indeed, the teachers had received ample support from their school and colleagues in unpacking the e-asTTle rubric. Additionally, the teachers may have found themselves in the field of production of knowledge, a field they are not used to operate.

In summary, when we look at findings through a Bernsteinian lens, this investigation supported the teachers in becoming aware of the systems of Language students comprehend and that they

need to recontextualise the School's discourse so all students can understand it. In doing so, the teachers in this investigation modified the genre of feedback they provided LCC Poor students with, which allowed these students to enhance their writing. Furthermore, LCC Poor students could benefit from receiving audio feedback as it played the role of a recontextualisation tool and helped in making the meaning of feedback explicit by strengthening the Framing of the comment. Finally, I have proposed the view that the teachers, when they co-created the persuasive writing rubrics, found themselves in the field of production of knowledge, an environment they are not used to and did not feel comfortable in and reverted back to the field of reproduction of knowledge.

5.5 How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive writing genre?

The overall arching research question in this investigation was as follows: How does the use of an online collaborative writing platform to create feedback as dialogue support diverse middle school students' learning of the persuasive writing genre?

This study illustrates that teachers' use of an online collaborative platform to create feedback as dialogue can support diverse middle school students' learning of the persuasive writing genre. In coming to this finding, it is important to reiterate that for students to be able to act on the feedback they receive, it is crucial for teachers to have a thorough understanding of what effective feedback is. The participating teachers already knew feedback had to be timely, given continuously, dialogic and personalised however by the end of the intervention the teachers understood that feedback also had to be set against success criteria (see section 4.10.1.1.1). They recognised that it was important to provide feedback to students working below the standard first as it would benefit them even more than students working at and above the standard. Furthermore, LCC Poor students commented they liked being provided with audio-based feedback as it made the feedback more explicit. All students liked that Google Docs allowed teachers to give feedback faster (see section 4.10.3.2) and to highlight the sentence in their work that related to the feedback comment. In this way, dialogue took place when students amended their work in response to teacher feedback.

In conclusion, findings suggest students would benefit from using an online collaborative writing platform to create feedback to diverse students.

5.6 Chapter summary

This chapter discussed the findings of the investigation with regards to the research questions and presented a Bernsteinian perspective on the need for attention to codes, the value of written and audio feedback, and rubrics as recontextualisation tools in support of equity access to feedback and persuasive writing.

Overall, all participants benefited from the intervention. The teachers gained deeper insights regarding their feedback practice and sought new ways to enhance support for all students. As a result, students' persuasive writing learning process and outcomes were demonstrably enhanced. It was clear that LCC Poor students benefited the most from this investigation. The use of Google Docs to provide feedback afforded and supported teachers' feedback to students by creating new and different spaces for conversation for teachers and students to learn together about persuasive writing. Finally, Bernstein's concepts of Language and tools of recontextualisation offers a useful analysis as to how teachers can modify the School's discourse so all students can access the School's knowledge.

Chapter Six Conclusion

This research aimed to establish if the use of an online collaborative writing platform to create feedback as dialogue could support diverse middle school students learning the persuasive writing genre.

As the literature review stated in Chapter Two, the provision of feedback has been singled out as being an important way that teachers can support students' learning. A lack of teacher knowledge regarding the process of learning, the time it takes for teachers to provide effective feedback and the fact that some students ignore the feedback they are provided with, are some of the reasons why effective feedback is not provided regularly. I was interested in establishing if effective feedback for persuasive writing aligned with the characteristics of effective feedback to be found in the literature and whether if it was to be provided online, students working "below the standard" would benefit from receiving digital feedback, especially audio-based feedback. Therefore, I conducted an investigation using design-based research and situated within a critical paradigm.

Two participating teachers and their respective classes took part in my investigation. Using a mixed-method approach, data from semi-structured interviews, surveys, documents, classroom observations, and work samples from 10 target students was analysed. Phase One aimed to obtain a clear picture of what was happening regarding teacher and students understanding and use of feedback. The second phase commencing with a professional development workshop constituted the first cycle of intervention. It included classroom observations. Phase Three was a repeat of Phase Two. Finally, the investigation was evaluated by teachers and students during Phase Four. The context for the investigation was the learning of writing in the persuasive genre because I felt that this genre presented some codes, which might be challenging to and unknown by students from various social and economic unprivileged backgrounds.

The following questions guided the investigation:

- (i) How does teachers' understanding of quality feedback change over time?
- (ii) How do students perceive, understand and act on written and audio teacher feedback?
- (iii) To what extent does students' persuasive writing improve when they are given feedback as dialogue through digital technology?

This conclusion chapter's purpose is to present a summary of the investigation findings and implications and to offer some suggestions for further research.

6.1 Summary of the investigation

The first research question looked at how teachers' understanding of feedback grew during the investigation. Although they initially had a thorough understanding of what effective feedback should look like, they stated that they gained teaching knowledge regarding feedback and persuasive writing. Furthermore, they stated that they were going to use feedback as an extension programme the year after. Indeed, they planned on providing feedback to students working below the standard first to give them longer to understand and act upon the feedback they received. Providing feedback to students working below the writing standard first would benefit the students who need it the most. Furthermore, the teachers commented that the use of an online collaborative writing platform assisted them in providing more personalised and more explicit feedback.

The second question was concerned with how students perceive, understand and act on written and audio teacher feedback. All target students commented that they preferred feedback digitally provided on Google Docs. Teachers and the students thought the use of Google Docs made the feedback more explicit. Students liked that on Google Docs teachers could highlight the sentence in their work that feedback related to. As for the LCC Poor students, they commented that they benefited from receiving audio-based feedback since it helped them to understand the feedback, however LCC Rich students preferred written feedback because audio feedback took time to listen to. Students thought that the rubrics could also have played an important role in strengthening their understanding of feedback as rubrics exemplified the language expected in their writing pieces and they worked as a goal for the students to meet.

The last research question referred to the persuasive writing genre and to what extent students had improved their skills in this writing genre. By the end of the intervention, the whole class saw the number of students achieving below the expected level halved and the total of students working above the expected level tripled. Results in line with the rest of the class were observed for the target students. Although expected since feedback has been singled out as being the most important change a teacher can implement in her practice, the teachers' increased understanding of feedback and persuasive writing, and the use of Google Docs to provide feedback can explain the students' attainment increase. Although a conventional dialogue seemed not to have taken place between the teachers and the students, it can be argued that a

kind of dialogue still occurred. After the teachers had provided feedback, the students amended their work according to the feedback comments and then the teachers further commented on students' pieces of writing.

When explained through a Bernsteinian lens, the findings of this intervention show the importance of recontextualisation tools in supporting student comprehension of the School's discourse. At the beginning of the intervention, LCC Poor students received mainly feedback on surface language features. When they became aware of the Codes students could comprehend, the teachers modified the feedback they provided LCC Poor students. This and the use of audio-based feedback as a recontextualisation tool helped LCC Poor students in understanding the School's discourse. It can be argued that teachers need to modify the School's discourse using recontextualisation tools, such as audio feedback and rubrics, to strengthen the Framing. In doing this, teachers create a bridge between the discourse students bring from home and the School discourse. It was therefore surprising the teachers did not use the rubrics they had co-created. Through a Bernsteinian lens, this can be explained as teachers not being familiar with the production of knowledge field. Their use of the e-asTTle rubric, a rubric they had received ample support to understand, can be explained as them remaining in the field of reproduction of knowledge.

In conclusion, this investigation found that the use of an online collaborative writing platform to create feedback as dialogue could support diverse middle school students' learning of the persuasive writing genre. However, teachers need a thorough understanding of feedback and the persuasive writing, and they need to deliberately modify the School's discourse so students can comprehend it. This modification can occur with the use of recontextualisation tools such as audio-based feedback and the use of rubrics since these tools permit the Framing to be strengthen.

6.2 Implications of this study

Supporting all students in understanding the feedback they have been provided with to increase their persuasive writing skills has been the main objective of this study. This investigation has brought to light a few implications, which may be beneficial to students, teachers, school leaders, professional providers as well as policy makers.

6.2.1 Implications for students

This investigation has shown that students are very responsive when they are provided with feedback that is timely, personalised and given continuously. Students are able to amend their work so they can see their persuasive writing skill level increase dramatically. It is important to note here that all students stated technology-based feedback was preferred. However, students have different preferences regarding which kind of technology-based feedback they would like to receive. Indeed, LCC Rich students favoured written digital feedback whereas LCC Poor students stated that they finally understood what was asked of them when they were provided with audio-based feedback. It seems therefore important for students to be given the opportunity to receive audio-based feedback, especially for students whose literacy level is low.

6.2.2 Implications for teachers

Since students made it clear that feedback is essential for their learning, teachers need to ensure they provide all their students with effective feedback. Moreover, they would be advised to consult their students and decide together if being provided audio-based or written feedback could be beneficial. Teachers could then favour the kind of feedback students preferred. They could perhaps make it a priority to provide LCC Poor students with audio-based feedback. This scenario could help address the fact that teachers find feedback time consuming.

This study has also pointed out that students enjoy being provided rubrics. It would be beneficial for teachers to provide explicit rubrics to their students and explain them by unpacking the vocabulary with their students.

The use of an online collaborative writing platform was beneficial not only for students to enhance their persuasive writing skills, but also for teachers to provide specific and personalised feedback. Therefore, teachers should seriously consider the use of such a platform to provide written feedback.

6.2.3 Implications for professional development providers

This study has brought to light that teachers believed they were ill prepared for providing effective feedback and they felt a certain lack of support in this regard from Teachers College and their school. It is therefore important that newly qualified as well as experienced teachers receive adequate training regarding the provision of effective feedback. Furthermore, teachers should be supported in fully comprehending the learning process and how to assist their students in closing the gap in their learning.

6.3 Limitations

Although this study has identified a few implications for students, teachers and professional development providers it has some limitations. First, this investigation only involved a small number of participants from the same school. This context highlighted some findings from a small town in New Zealand with its particular socio-economic backgrounds. If this study was to be reproduced in another school with other participants, different results could be found. Nonetheless, the findings are robust and have implications for the education learning community. This study and its methodology could be used by other teaching professionals to gauge if a similar investigation could reproduce comparable results.

6.4 Suggestions for further research

It would be very interesting to see whether equivalent results would be found if a similar investigation was to take place in another learning community. Furthermore, when conducting research, if the use of an online collaborative writing platform to create peer feedback supported diverse middle school students' learning the persuasive writing genre, would be another interesting aspect.

6.5 Final remarks

This study has shown that LCC Poor students can access School's discourse as part of persuasive writing if they are provided with audio-based feedback. Teachers can translate the elaborated School's code into a discourse that students can comprehend since teachers create a bridge between the School's discourse and the discourse students take from home.

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Appendix 1: Participants' information sheets and consent forms

Principal's participation information sheet

Participant Information Sheet



Project Title: An exploration of the use of an online collaborative writing platform to enhance teacher feedback as dialogue

Purpose

This research is being conducted as a partial requirement for the Doctorate of Education. It aims to investigate how the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre.

What will you have to do and how long will it take?

In my study I want to investigate if and how teacher feedback provided on an online collaborative writing platform can help all the students in a middle school class to develop their persuasive writing skills. I would like to conduct my research at XXXXX Middle School. The study would involve two volunteer teachers and their students. If you agree to the school participating in the study, I would like to ask that you or your nominee inform the teaching staff of my study and request volunteers for the study. Two volunteer teachers who are willing to collaborate together and with me are needed. The participating teachers will then present my study to their participant classes and seek volunteer students to take part in this investigation. All students in their classes will be involved in the work we do together, but data for the study will only be collected from students who consent to participate in the study.

What will the participants have to do and how long will it take?

• Teachers:

Both teachers will be interviewed individually regarding their views of feedback with a focus on the affordances of an online collaborative writing platform at the beginning of the investigation to develop a picture of their understanding and use of feedback, and their proficiency in using such an online collaborative writing platform. This should take no longer than 45 minutes. These interviews will be followed by a meeting with me during which a summary of key points from their interviews will be shared.

A professional development workshop will then be held regarding feedback with a focus on the affordances of an online collaborative writing platform. During this workshop, which will last about half a day, the teachers and I will co-construct what counts as effective feedback, which tools we will explore to provide feedback (potentially Google Docs or a similar platform), and we will co-create success criteria and a rubric for persuasive writing. We will collaboratively plan lessons and will agree when feedback will be provided to students and the class time allocated for students to amend their work according to the feedback they have received. I will observe their classes (two cycles of three observations with each teacher) when students alter their work. Notes will be taken during the observations. A debriefing meeting will take place after each observation at a time and place convenient to the teachers. Each debriefing will take no more than 15 minutes. Teachers will also be asked to share their planning resources as well as their mark books and the feedback they have provided. Both teachers will be interviewed together at the end of the study for their views and reflection regarding the study intervention.

• Students:

At the end of each class observation, students will be asked to complete an exit survey (anonymous and paper-based), which will take no more than 10 minutes. This will focus on their views regarding the feedback they have received. Students' work sample and grades will be collected throughout the investigation. Up to 10 volunteer students will be interviewed in focus groups at the end of the study in order to obtain their views and evaluation of the intervention. It is anticipated that this interview will last no more than 60 minutes. Students from the teachers' classes will all be asked to fill in an online survey at the end of the investigation to evaluate their experiences of the intervention (15 minutes).

All the interviews will be audio-recorded and summaries of key points will be made and shared with participants for purposes of verification.

Participants will be asked to give consent to participate in the study prior to the data collection.

What will happen to the information collected?

Only I and my supervisors will be privy to the data I collect.

The information collected will be used by me to write a thesis as part of my Doctorate study. It is possible that other academic articles and presentations may be the outcome of the research.

I will keep all the data in a secure cupboard and or password-protected computer for five years.

No participants will be named in the publications but will be identified through pseudonyms or codes. Please know that although all care will be taken to ensure participant anonymity, this cannot be guaranteed. This study has obtained ethical approval from the Faculty of Education Human Ethics Committee (10/05/2018)

Declaration to participants

Participants in this study have the right to:

- Refuse to answer any particular question, and request that the audio-recording be stopped.
 Speak to the school counsellor if they experience any kind of stress or anxiety.
- Withdraw all data collected from them (with the exception of the surveys, collective focus group summary points and joint teacher interview summaries) until the data analysis has commenced without providing any explanation. If such a case occurs, I will retain the data which has already been collected and summaries agreed on.
- Ask any further questions about the study during their participation.
- Access to a summary of findings from the study when it is concluded.
- Be aware that participation in the study is voluntary.

Who's responsible?

If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher:

Florence Lyons

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Elaine Khoo

Consent Form for Participants



How does the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre?

Consent Form for Principal

I have read the Participant Information Sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that:

- The school's participation in the research is entirely voluntary.
- The school has the right to withdraw from the research and any data collected from them (with the exception of the surveys, collective focus group summary points and joint teacher interview summaries) at any time up to the time the data analysis has commenced without providing any explanation. If such a case occurs, the researcher will retain the data which has already been collected and summaries agreed on.
- I understand that the researcher will make summaries of key points from the audio recordings and their contents will be confidential.
- I understand while the researcher will endeavour to safeguard the participants' confidentiality and privacy, these cannot be guaranteed.
- I understand that the research data may be used in presentations or publications but no identifiable information about the teachers, the students or the school will be made available, although this cannot be guaranteed.
- I understand that data will be kept for five years, after which it will be destroyed.
- I agree to provide information to the researcher under the conditions of confidentiality set out on the Participant Information Sheet.

r agree for the	school to participate in this study under the conditions set of	ut in th
Participant Info	ormation Sheet.	
Signed:		
Name:		
Date:		

Participant Information Sheet



Project Title: An exploration of the use of an online collaborative writing platform to enhance teacher feedback as dialogue.

Purpose

This research is being conducted as a partial requirement for the Doctorate of Education. It aims to investigate how the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre.

What will you need to do and how long will it take?

If you consent to participating, you will be interviewed individually regarding feedback with a focus on the affordances of an online collaborative writing platform at the beginning of the investigation to develop a picture of your understanding and use of feedback, and your proficiency in using an online collaborative writing platform. This should take no longer than 45 minutes. These interviews will be followed by a meeting with me during which a summary of key points from your interviews will be shared with you. You will be able to amend any points raised from your interview summary.

A professional development workshop will be held next regarding feedback with a focus on the affordances of an online collaborative writing platform. During this workshop, which will last about half a day, you, the other participating teacher and I will co-construct what counts as effective feedback, which tools we will explore to provide feedback (potentially Google Docs or a similar platform), and we will create a rubric /success criteria for persuasive writing and quality

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feedback. We will collaboratively plan lessons and will agree when feedback will be provided to students and will agree on class time allocated for students to amend their work according to the feedback they have received. I will observe your classes (two cycles of three observations each) when students are given feedback to alter their work. All students in your class will be invited to participate in the work we do together. I would like to have a short debriefing meeting with you, which will take place after each observation at a time and place convenient to you. Each debriefing will take no more than 15 minutes. You will also be asked to share your planning resources as well as your mark books and the feedback you have provided to students. At the end of the investigation, you will be asked to participate in a joint interview with the other teacher participating in the study lasting up to 60 minutes. The interview will be audio-recorded and key summary points noted will be shared with you. You will be able to go through the summary points with the other teacher in a later meeting and collectively agree or not on the points raised. This meeting is anticipated to last no more than 30 minutes. I will retain the summary that has been agreed upon as data for the study.

At the end of each class observation, your students will be asked to complete an exit survey (anonymous and paper-based), which will take no more than 10 minutes. Up to 10 volunteer students will be interviewed in focus groups at the end of the study in order to evaluate the intervention. Your students will all be asked to fill in an online survey at the end of the investigation to evaluate the investigation (15 minutes).

There will be no consequences for you if you do not consent to participate in the study.

You can withdraw from the study up until the time data analysis has commenced without providing any explanation. Your data will be removed and not used in the analysis. However, it is not possible to remove the data collected from you in the joint interview from the audio file given it was collected as part of a collective process. If such a case occurs, I will retain the data which has already been collected and summaries agreed on.

What will happen to the information collected?

The information collected will be used by me to write a research thesis for my doctoral study. The data will be included in articles and presentations to researchers and professionals. Only I and my supervisors will have access to the data and any notes, documents, recordings I develop.

After five years, notes and documents will be destroyed and recordings erased. All transcriptions of the audio-recordings, documents and a copy of the interview summaries will be treated with the strictest confidentiality. During the intervention, I may take written notes during interviews, observations, debriefings, and interventions workshops. These notes will follow the same confidentiality procedures as other documents collected during the investigation.

No participants will be named in any publications and every effort will be made to protect their identity through pseudonyms. Although, all care will be taken to ensure participant anonymity, this cannot be guaranteed. This study has obtained ethical approval from the Faculty of Education Human Ethics Committee (10/05/2018).

Declaration to participants

If you take part in the study, you have the right to:

- Refuse to answer any particular question and ask that the audio-recording be stopped.
- Speak to the school counsellor if you experience any kind of stress or anxiety.
- withdraw all data collected from you (with the exception of the joint interview summary)
 up until the time data analysis has commenced without providing any explanation. If such
 a case occurs, the researcher will retain the data which has already been collected and
 summaries agreed on.
- Ask any further questions about the study that occurs during your participation.
- Access to a summary of findings from the study when it is concluded.

Who's responsible?

If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher's name and contact

information: Florence Lyons

ffmnl1@students.waikato.ac.nz

Supervisors' names and contact

information: Bronwen Cowie

bcowie@waikato.ac.nz

Elaine Khoo

Consent Form for Participants



How does the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre? **Consent Form for Participants**

I have read the Participant Information Sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that:

- 1. My participation in the project is voluntary.
- 2. I have the right to withdraw my data (with the exception of the joint interview summary) up until the time data analysis has commenced without providing any explanation. If such a case occurs, the researcher will retain the data which has already been collected and summaries agreed on.
- 3. Data may be collected from me in the ways specified in the accompanying letter. This data will be kept confidential and securely stored.
- 4. Data obtained from me during the research project may be used in the writing of reports or published papers and making presentations about the project. This data will be reported without use of my name although my anonymity cannot be guaranteed.

I consent to participating in the following study.

I agree to provide information to the researcher under the conditions of confidentiality set out on the Participant Information Sheet.

I agree to participate in this study under the conditions set out in the Participant Information Sheet.

I agree for my interview responses to be tape-recorded.

Signed:	 	
Name:	 	
Date:	 	

Please return this form to the researcher in the envelope provided to the school by the researcher.

Researcher's name and contact

information: Florence Lyons

ffmnl1@students.waikato.ac.nz

Supervisors' names and contact

information: Bronwen Cowie

bcowie@waikato.ac.nz

Elaine Khoo

Participant Information Sheet



Project Title: An exploration of the use of an online collaborative writing platform to enhance teacher feedback as dialogue.

Purpose

This research is being conducted as a partial requirement for the Doctorate of Education. It aims to investigate how the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre.

What will your child have to do and how long will it take?

As part of my Doctoral research, I would like to invite you and your child to participate in this study. I will observe your child's class up to six times during the whole investigation. An intervention, involving your child's teacher, about the use of an online collaborative writing platform when providing formative feedback will take place. All students in the class will be involved in the work we do together. At the end of each class observation, your child will be asked to complete an exit survey (anonymous and paper-based), which will take no more than 10 minutes. At the end of the investigation, your child will be asked to complete an online questionnaire. This should take no longer than 15 minutes. I also would like to interview your child in a focus group with up to 10 volunteer students in the group. The interview is anticipated to last no more than 60 minutes. The interview will be audio-recorded and will take place at a time advised by the class teacher to minimise disruption to your child's learning in school. A summary of the key points from the interview will be shared with the students in class for them to check if it accurately represents the points that have been raised. However, participants cannot access data from the surveys since they are anonymous.

Your child's teacher will be asked to share their mark books with me as well as their lesson plans.

I will collect sample of students' work and the feedback the teacher has provided to their work.

You and your child will be asked for your consent to participate in the study prior to the data collection. There will be no consequences for you and your child if you do not consent to participating in the study. You and your child can withdraw from the study and any data collected your child (with the exception of the surveys and collective focus group summary points) up until the time data analysis has commenced without providing any explanation and without any prejudice. However, it is not possible to remove your child's data collected from the focus group interview from the audio file given it was collected as part of a group process. If such a case occurs, the researcher will retain the data which has already been collected and summaries agreed on. With the exception of the surveys and focus group data, all data will be removed and not used in the analysis.

What will happen to the information collected?

The information collected will be used by me to write a thesis as part of my Doctorate study. It is possible that articles and presentations may be the outcome of the research. Only I and my supervisors will be privy to the notes, documents, recordings and the paper written. After five years all data, notes and documents will be destroyed, and recordings erased. All data will be treated with the strictest confidentiality. During the intervention, I may take written notes during interviews, observations, debriefings, and interventions workshops. These notes will follow the same procedures as other documents collected during the investigation.

No participants will be named in the publications and every effort will be made to protect their identity using pseudonyms. Although, all care will be taken to ensure participant anonymity/confidentiality, this cannot be guaranteed. This study has obtained ethical approval from the Faculty of Education Human Ethics Committee (10/05/2018)

Declaration to participants

If you allow your child to take part in this study, you and your child have the right to:

• Refuse to answer any particular question and ask the recording to be stopped.

• Speak to the school counsellor if they experience any kind of stress or anxiety.

• Withdraw from the study including any data collected (except for the exit survey and focus

group data) up until the time data analysis has commenced without providing any

explanation. If such a case occurs, the researcher will retain the data which has already

been collected and summaries agreed on.

• Ask any further questions about the study that occurs to you during your participation.

• Access to a summary of findings from the study when it is concluded.

Who's responsible?

If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher's name and contact

information: Florence Lyons

ffmnl1@students.waikato.ac.nz

Supervisors' names and contact

information: Bronwen Cowie

bcowie@waikato.ac.nz

Elaine Khoo

Parents' consent form

Consent Form for Participants



How does the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre?

Consent Form for Participants

I have read the Participant Information Sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that:

- 1. My child's participation in the project is voluntary.
- 2. I/my child have the right to withdraw from the study and any data collected from my child (except for the surveys and focus group data) up until the time data analysis has commenced without providing any explanation. If such a case occurs, the researcher will retain the data which has already been collected and summaries agreed on.
- 3. Data may be collected from my child in the ways specified in the accompanying letter. This data will be kept confidential and securely stored.
- 4. Data obtained from my child during the research project may be used in the writing of reports or published papers and making presentations about the project. This data will be reported without the use of my child's name although their anonymity cannot be guaranteed.

I give my consent for my child to participate in the following study.
I agree for my child to provide information to the researcher under the conditions of confidentiality set out on the Participant Information Sheet.
I agree for my child to participate in this study under the conditions set out in the Participant Information Sheet.
I agree for my child's interview responses to be tape recorded.
Signed:
Name:
Name of the child:
Date:
Please return this form to the researcher in the envelope provided to the school by the researcher.

Researcher's Name and contact

information: Florence Lyons

ffmnl1@students.waikato.ac.nz

Supervisors' Names and contact

information: Bronwen Cowie

bcowie@waikato.ac.nz

Elaine Khoo

Participant Information Sheet



Project Title: An exploration of the use of an online collaborative writing platform to enhance teacher feedback as dialogue

Purpose

I am studying to become a Doctor in Education. As part of my study, I am required to choose a topic and conduct research on the topic. My research is about how your teachers can use an online collaborative writing platform to provide feedback to you to support your learning of the persuasive writing genre.

What will you have to do and how long will it take?

As part of my Doctoral research, an intervention, involving your teacher, about the use of an online collaborative writing platform to provide formative feedback to your work will take place. All students in your class will be involved in this work. I will observe your class up to six times during the investigation. At the end of each class observation, you will be asked to complete a small survey (paper-based survey without your name), which will take no more than 10 minutes. At the end of the study, you will be asked to complete an online questionnaire. This should take no longer than 15 minutes. I also would like to interview you in a focus group with up to 10 volunteer students in the group. The interview is anticipated to last no more than 60 minutes. The interview will be audio-recorded. A summary of the key points from the interview will be shared with you in class for you to check if it accurately represents the points that have been raised.

Your teacher will be asked to share their mark books with me as well as their lesson plans. I would like to collect samples of your work and the feedback your teacher has provided to you on your work.

You will be asked for your consent to participate in the study before I collect any information from you. There will be no consequences for you if you do not consent to participating in the study. You can withdraw from the study and any information collected from you up until the time data analysis has commenced without providing any explanation and without any prejudice. Your data will be removed and not used in the analysis. However, it is not possible to remove data collected from you in the focus group interview from the audio file given it was collected as part of a group process. It is also not possible to remove data collected from you from the surveys since they are anonymous.

What will happen to the information collected?

I will use the information collected to write a research report for my study. It is possible that articles and presentations may be the outcome of the research. Only I and my supervisors will know about the notes, documents, recordings and the paper written. After five years all information, notes, and documents will be destroyed, and recordings erased. All information will be treated with the strictest confidentiality. You will not be named in the publications and every effort will be made to protect your identity through pseudonyms. Although all care will be taken to ensure your anonymity/confidentiality, this cannot be guaranteed. This study has obtained ethical approval from the Faculty of Education Human Ethics Committee (10/05/2018).

Declaration to participants

If you take part in the study, you have the right to:

- Refuse to answer any particular question and ask that the recording be stopped.
- Speak to the school counsellor if you experience any kind of stress or anxiety.
- Withdraw from the study and any information collected from you (except for the surveys
 and focus group information) up until the time data analysis has commenced without
 providing any explanation. If such a case occurs, the researcher will retain the data which
 has already been collected and summaries agreed on.

- Ask any further questions about the study during your participation.
- Access to a summary of findings from the study when it is concluded.

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If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher's name and contact

information: Florence Lyons

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Supervisors' names and contact

information: Bronwen Cowie

bcowie@waikato.ac.nz

Elaine Khoo ekhoo@waikato.ac.nz

Consent Form for Participants



How does the use of an online collaborative writing platform to create feedback as dialogue supports diverse middle school students' learning of the persuasive writing genre?

Consent Form for Participants

I have read the Participant Information Sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that:

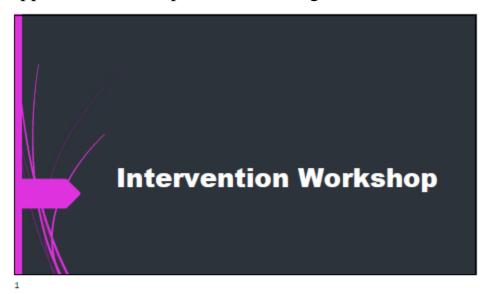
- 1. My participation in the project is voluntary.
- 2. I have the right to withdraw from the study and any information collected from me (except for the surveys and focus group information) up until the time data analysis has commenced without providing any explanation. If such a case occurs, the researcher will retain the data which has already been collected and summaries agreed on.
- 3. Data may be collected from me in the ways specified in the accompanying letter. This data will be kept confidential and securely stored.
- 4. Data obtained from me during the research project may be used in the writing of reports or published papers and making presentations about the project. This data will be reported without use of my name although my confidentiality cannot be guaranteed.

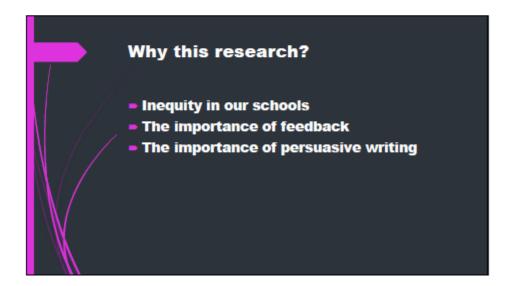
I consent to participating in the study.

I agree to provide information to the researcher under the conditions of confidentiality set out on the Participant Information Sheet.

I agree to participate in this study under the condition. Sheet.	ons set out in the Participant Information
I agree for my interview responses to be tape-record	ded.
Signed:	
Name:	
Date:	
Please return this form to the researcher in the enve	clope provided to the school by the researcher.
Researcher's name and contact	Supervisors' names and contact
information: Florence Lyons	information: Bronwen Cowie
ffmnl1@students.waikato.ac.nz	bcowie@waikato.ac.nz
	Elaine Khoo ekhoo@waikato.ac.nz

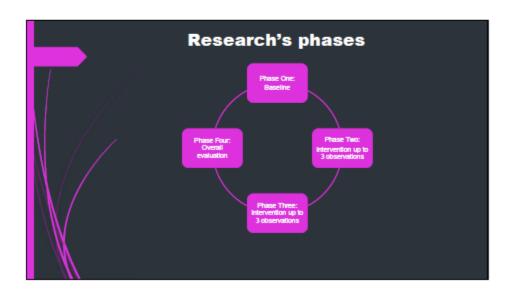
Appendix 2: Powerpoint used during the intervention workshop





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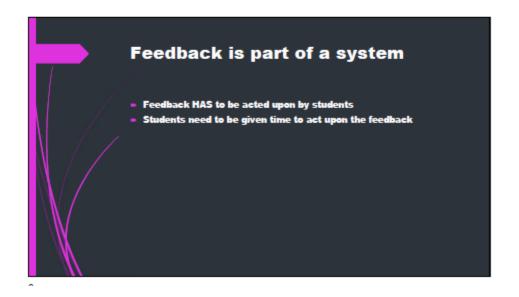
Today

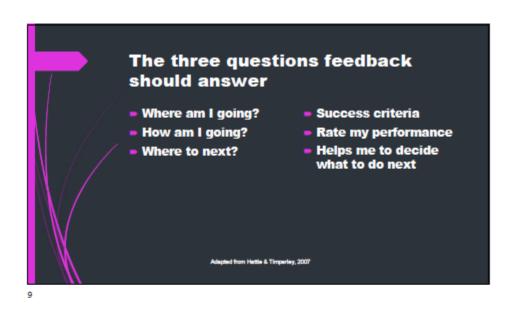
- What is effective feedback?
- What is good quality persuasive writing? (exemplars) Choose subject and topic
- developing a rubric to help us give feedback to PW (neutral and then contextualised)
- Plan lessons
- Which tools are best suited for our intervention?
- Decide of observations dates. Students after their work using feedback which will have been provided prior the observation
- Identify up to 10 students

Feedback

Learning takes the learner from what is already known to the next step of what she is capable of understanding. It closes the gap between what is already known and what could be known next. One way this gap can be closed by the learner is with the help of a more proficient person who provides feedback: formative feedback is information that aims to support the learner in crossing this gap.







3 foci for teachers' feedback

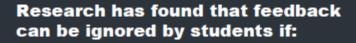
Praise, grades and comments like "good girl" do not count as feedback

Content focus: what is correct or incorrect, specific what needs to be altered

Process focus: how the task has been produced Teacher helps to create or expand learning strategies (e.g. help with making connections between ideas, strategies to find errors)

Self-regulation focus: helps the student to learn how to learn and how to self-evaluate (e.g. W probing questions

Adapted from Hattle & Timperley, 2007

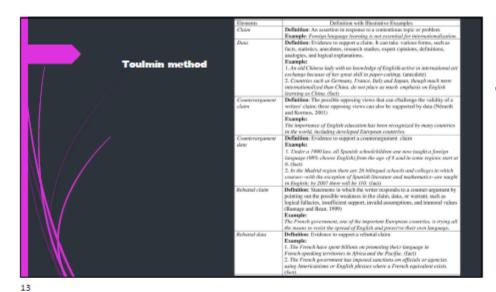


- It is too late
- It is too vague
- They cannot read the teacher's handwriting
- The language used is too difficult to comprehend

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Persuasive writing

- "To support ideas presented in sequence to justify a particular stand or viewpoint that a writer is taking.
 - The writer's purpose is to take a position on some issue and justify it. Persuasive writing is intended to present a point of view on an issue being debated, or to market a particular product, process or line of thought. The author sets out to state their view in a way that will influence others* (from English College Regulation)
- It requires the writer to put forward a series of points in an ordered, rational way



See section 2.5.2.1 for more details



Clarifying, sharing, and understanding learning intentions

- Designing educational experiences backward from the intended outcomes is extremely influential.
- Learning outcomes = what it is that students can do as a result of engaging in educational activities (literally, the outcomes of the learning process)
- We use learning intentions to describe the things that we want our students to learn and success criteria to describe the criteria that we use to judge whether the students' learning has been successful
- The aim of any learning intention or success criteria is not to help the students complete the activity, it is to help them learn.

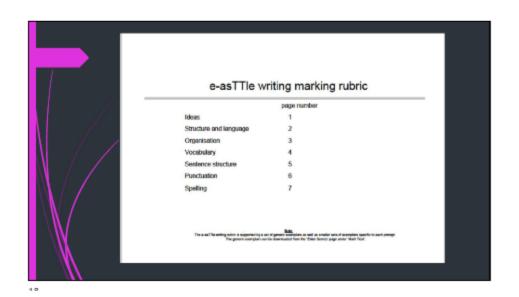
Adapted from William & Leahy, 2015

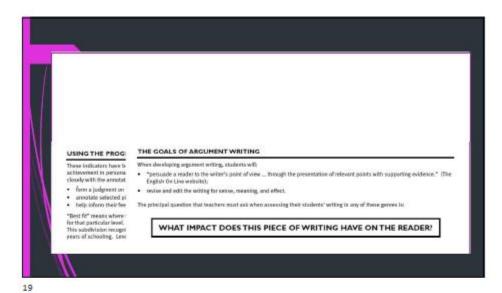
15

Clarifying, sharing, and understanding success criteria

- Some authors argue that success criteria are more useful if they address the process by which students are to produce the work than if they merely describe the features of the final product.
- Process success criteria summarise the key steps or ingredients
 the student needs in order to fulfil the learning intention- the main
 things students need to do, include or focus on. These give a
 framework for formative assessment to take place.
- They can help weaker students do better work than they might without those supports.







Auditrous Assertions

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Committed

Committed

Committed

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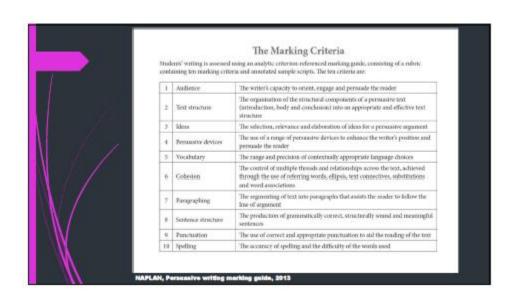
I have reported from who yours asserted

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I have reported

221



Appendix 3: Teachers' first interview questions

Question 1 How confident are you in using digital technology in your teaching?

Question 2 Do you believe that digital technology may be a barrier to students who already struggle?

Question 3 Do you feel comfortable in using an online writing collaborative platform?

Question 4 So, could you on top of your heads give me a definition of formative feedback. What do you think in your own words?

Question 5 Can you give an example?

Question 6 What is the purpose of providing feedback?

Question 7 What kind of feedback do you give?

Question 8 Who do you give feedback to?

Question 9 Do you think giving feedback is a laborious task?

Question 10 If I was going to ask any of your students in your class, what would they say about the feedback they receive?

Question 11 Have you had any students enquiring about the feedback they have received?

Appendix 4: Students' interview after teacher's feedback

- 1- Do you ever find your teacher's handwriting difficult to read?
- 2- How do you find writing on Google Docs?
- 3- Do you think writing in Google Docs helps your learning?
- 4- Have you understood what is the purpose of persuasive writing?
- 5- Have you understood the PEER structure?
- 6- When you read the feedback given by your teacher on Google Docs, what do you do?
- 7- After making changes in your writing, how do you know you are successful? Do you check the persuasive writing structure sheet? The PEER structure sheet?
- 8- So far, have you understood your teacher's feedback on Persuasive writing?
- 9- What do you think are the advantages of writing the feedback on Google Docs?
- 10- Since using Google Docs to give you feedback regarding your persuasive writing:
 - a) You receive feedback faster?
 - b) You receive better quality feedback?
 - c) You receive more explicit feedback?
 - d) The feedback you receive is linked to the success criteria more?
 - e) It is easier for you to communicate with your teacher?
- 11- What do you think are the disadvantages of writing the feedback on Google Docs?
- 12- What could your teacher do to help you write better persuasive writing?

Appendix 5: Students' exit surveys

Tick the box that represents your opinion the best

	\odot	<u></u>	:	
I was able to read the feedback I received				
I understood the feedback I received				
I was able to use the feedback to make my work better				
I prefer getting my feedback on a computer than in my book				

Appendix 6: Teachers' interview questions after provision of audiobased feedback

- 1- Did you find the process of giving audio feedback easy?
- 2- What are the advantages?
- 3- What are the disadvantages?
- 4- Do you think it is easier for you to give audio feedback than written?
- 5- Do you think it is easier for you to give audio feedback than verbal in class?
- 6- Can you take me through the process? What did you do? Did you rehearse? Did you prepare notes?
- 7- Do you think it felt you were having a dialogue with the student?
- 8- Do you think it was faster?
- 9- Do you think it was more personalised?
- 10- Do you think it was more explicit?
- 11- While speaking, did you feel you were talking to the students?
- 12- Would you do it again?

Appendix 7: Students' interview questions after provision of audio-based feedback

- 1. Did you like receiving audio feedback? Why?
- 2. Was the recording clear?
- 3. Do you think that it is easier to understand audio feedback than written feedback? than verbal feedback?
- 4. If any, what are the advantages of audio feedback?
- 5. If any, what are the disadvantages of audio feedback?
- 6. Would you like to receive audio feedback only? What about a mix?
- 7. Do you think that receiving audio feedback is the same as written feedback? As verbal in class feedback?
- 8. Do you think that audio feedback is more personalised?
- 9. Do you think that audio feedback is more explicit?
- 10. Do you think you would be more likely to answer your teachers' comments when they are audio recorded?
- 11. What did you do when you listened to the audio feedback?
- 12. If you had to choose the best kind of feedback what would it be? And why?
- 13. Giving feedback is quite a long process for your teacher. What could your teacher do to give lots of feedback in the same amount of time?

Appendix 8: Teachers' last interview questions

Feedback in general:

- 1- During this intervention we were interested in feedback, Google Docs and persuasive writing. Have you got any overall thoughts? How did you find this experience?
- 2- Did anything surprise you?
- 3- During our first workshop, we looked at what feedback looks like. Looking at these characteristics (timely, set against success criteria, personalised, continuous loop, dialogic), how would you summarise your overall goal for giving feedback?
- 4- Some practical questions now:
 - When did you give feedback?
 - What was the delay between the time students wrote and you gave feedback?
 - What was the delay between the time students wrote and the time allowed in class to amend their work? Would you advise a longer/ shorter delay?
- 5- Have you found giving feedback challenging?
- 6- Looking at the rubrics you created during our first workshop, how have you used them? What would you do the same/ differently?
- 7- If you were going to share these rubrics with another teacher, how would you do it?

Feedback with Google Docs:

- 8- Do you think that providing feedback on Google Docs has allowed you to support the students in a more efficient way? Did your students do anything differently?
- 9- Looking at the rubrics you created during our first workshop, have you found that Google Docs allowed you to focus your feedback on a specific area of the rubric?
- 10- When you provided feedback on Google Docs, do you think you gave a different kind of feedback?
 - Was the delay between the time students wrote and your feedback delayed?
 - Was the feedback set against success criteria?
 - Was the feedback more personalised?

- Was the feedback more dialogic?
- 11- How did you use the tool CheckMark to provide feedback? Any pros and cons?
- 12- When you provided audio feedback, do you think you gave a different kind of feedback?
 - Was the delay between the time students wrote and your feedback delayed?
 - Was the feedback set against success criteria?
 - Was the feedback more personalised?
 - Was the feedback more dialogic?
- 13- How do you think that the use of Google Docs has supported your students' writing?
- 14- Has your feedback supported your students' persuasive writing? The PEER structure?
- 15- Is there any way you and your students were able to create a dialogue when using Google Docs? We understand dialogue as talk between two people; have you experienced this dialogic interaction during this investigation? Can you give examples?
- 16-Looking at your students' work, can you observe any changes over time? How have the students used your feedback?
- 17- Have you noticed any trends in students' grades?
- 18- If you were asked to present a summary of your experience and what has been learnt during this investigation to the staff in your school, what would be the main points you would raise?

Appendix 9: Students' last interview questions

As you know I came to your school because I was interested in feedback, Google Docs and persuasive writing. Have you got any overall thoughts? How did you find this experience?

Appendix 10: Teacher A's planning

Tuhituhi: Wiki 8 - Kaupeka 2					
	's Writing Groups				
Group/Level	WALT	Lesson Sequence / Resources / Links	Teacher Notes		
Azul (E3/A3)	Identify different features of persuasive writing including structural and language features.	 Lesson: What sort of texts are these? What structural features can you identify? What language features can you identify? Highlight/draw on your groups examples. Discuss their ideas Give structure outline to students to glue into their books.			
Morado (A3)		Follow up: Highlight different persuasive features of text - check off the list.			
Rosa (4A/5E)					

		1	Tuhituhi: Wiki 1 - Kaupeka 3	
			's Writing Groups	
В	oup/Level old = Target ight = Florence	WALT	Lesson Sequence / Resources / Links	Teacher Notes
Azul (E3/A3)	Write a counter argument **Comments function. Questions**	Feedback - give students 10 minutes to read through their feedback and make any changes/ask questions. Introduce WALT and purpose of the counter argument. What is it? Why do we need it? Brainstorm phrases that can be used eg. Although I believe some people think Write an example paragraph together Students can start writing their paragraph during this lesson if there is time.	Follow up: Finish writing counter argument paragraph
Morad	do (A3)	Write a counter argument **Comments function. Questions**	Feedback - give students 10 minutes to read through their feedback and make any changes/ask questions. Introduce WALT and purpose of the counter argument. What is it? Why do we need it? Brainstorm phrases that can be used eg. Although I believe some people think Write an example paragraph together Students can start writing their paragraph during this lesson if there is time.	Follow up: Finish writing counter argument paragraph
Rosa	(4A/5E)	Write a counter argument using evidence **Comments function. Questions**	Feedback - give students 10 minutes to read through their feedback and make any changes/ask questions. Introduce WALT and purpose of the counter argument. What is it? Why do we need it? Students to discuss with a partner what their stance is. Then discuss what their counter argument is - was there a difference in how they spoke? What might this look like in writing? Any key phrases to use? Students can start writing paragraph if time.	Follow up: Finish writing counter argument paragraph

	T	uhituhi: Wiki 2 - Kaupeka 3	
		's Writing Groups	
Group/Level Bold = Target Highlight = Florence	WALT	Lesson Sequence / Resources / Links	Teacher Notes
Azul (E3/A3)	Respond to feedback Write a conclusion for a persuasive letter	Respond to feedback - 10mins Review how to structure last paragraph Teach how to write a conclusion - Review all points covered - State argument - Leave reader thinking/question/important statement Give students time to write in lesson	
Morado (A3)	Respond to feedback Write a conclusion for a persuasive letter	Respond to feedback - 10mins Review how to structure last paragraph Teach how to write a conclusion - Review all points covered - State argument - Leave reader thinking/question/important statement Give students time to write in lesson	
Rosa (4A/5E)	Respond to feedback Write a conclusion for a persuasive letter	Respond to feedback - 10mins Review how to structure last paragraph Teach how to write a conclusion - Review all points covered - State argument - Leave reader thinking/question/important statement Give students time to write in lesson	

	Ţ	uhituhi: Wiki 6 - Kaupeka 3			
	's Writing Groups - Monday				
Group/Level Bold = Target Highlight = Florence	WALT	Lesson Sequence / Resources / Links	Teacher Notes		
Azul (E3/A3)	Identify what makes a good piece of persuasive writing	Students to read through examples of persuasive writing and compare with the rubric. What do they notice? Teacher to talk through the rubric and students to identify what level they believe the piece of writing is. Students to 'mark' the writing according to the rubric. Discussion based lesson.			
Morado (A3)	Identify what makes a good piece of persuasive writing	Discussion based lesson.			
Rosa (4A/5E)	Identify what makes a good piece of persuasive writing				

	Т	uhituhi: Wiki 6 - Kaupeka 3			
	's Writing Groups - Tuesday				
Group/Level Bold = Target Highlight = Florence	WALT	Lesson Sequence / Resources / Links	Teacher Notes		
Azul (E3/A3)	Plan for a piece of writing	Students to make sure their research doc and planning sheet are glued into their writing book (on pages next to each other!). Work through the planning sheet with the groups (It's not new to them but Morado will need more support). Everyone is to argue to point 'Plastic bags should be banned in NZ' The 1st body paragraph should include - One reason to support this argument - Use their research doc to come up with the Point. - Their research will be the "Evidence"			
	piece of writing	part of the PEER structure The 2nd body paragraph should include One reason to support the counter argument Use their research doc to come up with the Point. Their research will be the "Evidence" part of the PEER structure Morado The 3rd body paragraph should include One reason to support this argument Use their research doc to come up			
Rosa (4A/5E)	Plan for a piece of writing	with the Point. Their research will be the "Evidence" part of the PEER structure Rosa The 3rd body paragraph should include One reason to support this argument Explain why their side is better than the counter argument (refer them to what they did in Matariki letter) Use their research doc to come up with the Point. Their research will be the "Evidence" part of the PEER structure			

Appendix 11: Teacher B's planning

		's Tuhituhi Groups - Term 3 Week 6	
Group/Level	WALT/ Focus	Lesson Sequence / Resources / Links / Follow up task	Teacher Notes
Amarillo Verde	Identify what makes a good piece of persuasive writing.	 Monday Lessons: Choose 3 different leveled texts for each group. Have enough copies for 1 between 2. Make sure each student has a copy of the rubric in front of them. Choose one text and read through together. Looking at the rubric next, break it down going through each part. Have the students as a group decide what level each part of the rubric should be each text. Repeat with the following texts. Resources: Copies of exemplars. 	

Rojo Amarillo Verde	Plan for a piece of persuasive writing	Tuesday/Thursday Lessons: Students to print copies of their plastic bag research. Purpose of text: (to persuade people to why plastic bags should be banned in NZ) Form of text: (Essay for Newspaper) Audience: (citizens of NZ) Handout planning sheet. As a group go through and fill out planning sheet. Note: their research will be their evidence for the PEER structure. Resources: Puka rangi - just a couple in case student have not printed out their research. Copies of plan for each student.	

		's Tuhituhi Groups - Week 3 Term 3	
Group/Level	WALT/ Focus	Lesson Sequence / Resources / Links / Follow up task	Teacher Notes
Amarillo	Reading comments and editing whole letter.	Lesson: Capital letters for Proper Nouns. What are proper nouns? Why do we need to give them capital letters. 10- 15 mins - students read their comments and make changes. Print out a copy of their letter and swap with buddy. Buddy is double checking editing, highlight anything that needs to be changed. Give the students 5 mins to check their buddies (quiet so they can read and think). Then swap back with buddy and explain anything they need they have highlighted. Students can make the changes to their work, then move onto working on their speeches.	
Verde			

's Tuhituhi Groups - Term 3 week 2

Group/Level	WALT/ Focus	Lesson Sequence / Resources / Links / Follow up task	Teacher Notes
Amarillo	3rd main body paragraph and conclusion for the persuasive writing.	Lesson: 10 mins to check comments and make changes 5 mins to highlight the different PEER components of the 2 paragraphs they have already written 5 mins to talk/recap about 3rd main body paragraph, and the conclusion. Have them all type up the first sentence of their 3rd main body paragraph (for Rojo, give them the sentence to start them off, for Amarillo and Verde, brainstorm together a few different first sentences, and then have them choose one. "Although some people would prefer not to/to make Matariki a public holiday, I believe it should/shouldn't be because"	- still to write counter argument paragraph to think about comments and write a bit more. - please read all comments and make changes. - Get writing.
Verde		Follow up: Complete 3rd main body paragraph and conclusion Resources: Nga Pukaarangi Writing books Projector Teacher computer	

's Tuhituhi Groups - Week 1 Term 3

Group/Level	WALT/ Focus	Lesson Sequence / Resources / Links / Follow up task	Teacher Notes
Writing Group 1:	Persuasive letter intro and 1st main body paragraph (Catch up lesson for those who missed last term)	Lesson: Monday session 1 Make sure students have their writing books and a pukarangi. Recap on the whole structure of text. Recap on what should be in an introduction. Write a checklist on the board. Recap on what should be in a main body paragraph and it's structure. Write a checklist on the boards. Read through each group's (from week 10) example. Hlghlight with the students the PEER parts of the structure. Follow up: Write introduction and first main body paragraph. They need to write in now and stay in the group situation where they are. Resources: Writing books and nga pukarangi.	
		ı's Tuhituhi Groups - Week 1 Term 3	

Rojo (3)	Editing teachers comments and Counter argument main body paragraph	Lesson: Tuesday Session 4 Give 5-10 mins to read comments and make changes. Conference with students during this time. *** Make sure students know where to find all their past/resolved comments. **** Let the students know that if they are unsure about something or want to know something they can leave comments for us or they can reply to the comments that we leave them. **** When we ask you a question - eg, how do use thick you spell this contains the	Spend more time on feed back with this group! Spend more time on feed back with inches and inches
Vordo (4)		you think you spell this - reply in the comment thread what you think the answer is! Give them the learning intention and success criteria. Recap on the PEER structure.	
Verde (-4)		Our second main body paragraph will focus on the counter argument. How is this paragraph different to the other 2? Together as a group, write a counter argument paragraph.	
		Follow up: Students are to complete their counter argument main body paragraph by Friday! Really make sure they understand this. It is essential to have it finished by then! Resources: Make sure students have their writing books for their planning, and a pukarangi.	
		Teacher computer and projector.	

		's Tuhituhi Groups - Term 2 Week 8	
Group/Level	WALT/ Focus	Lesson Sequence / Resources / Links / Follow up task	Teacher Notes

Rojo	Identify different features of persuasive writing including structural and language features.	Lesson: What sort of texts are these? What structural features can you identify? What language features can you identify? Highlight/draw on your groups examples. Discuss their ideas Write on the board the whole text structure that we will be using and have them write it in their books. Introduction: Introducted argument,
Amarillo		- Introduce points to argue - Introduce counter argument MP 1: First arguing point - P - E - E - R MP 2: Counterargument point - PEER MP 3: Second arguing point - PEER Conclusion:
Verde		Restate argument Recover points Looking at the examples - which of these texts use a similar structure? Glue persuasive language into books. Follow up: Highlight different persuasive features of text - check off the list. Resources: Variety of persuasive texts glued onto big newspaper print (x2) and felt tips. Copies of 1 text to glue into their book with checklist of what to look for Copie of Persuasive language to glue into books

Appendix 12: Planning of second text

WRITING SAMPLE 2:

WEEK 6: (tech arts)

- Matrix and exemplars
- Research around new topic
- Planning

WEEK 7:

 Intro and first body paragraph and follow up is to complete these (check that all plans are complete)

WEEK 8:

- Second and third main body paragraph

WEEK 9:

- 3rd main body paragraph and conclusion

WEEK 10:

 Make last changes/editing, mark own work with matrix and think about 2 next learning steps for themselves.

WRITING SAMPLE 1: MATARIKI LETTER:

WEEK 7

- Discuss the persuasive writing rubric (hand out and glue in)
- Research around Matariki and public holidays (Music and Drama)

WEEK 8

- Look at examples of persuasive writing, look at structures (Lessons)
- Planning for a piece of persuasive writing. Overall essay structure (pros, cons, argument) and PEER paragraph structure (Music and Drama)
- Writing is going to be in letter form and addressed to Jacinda Ardern
- Persuasive and emotive words list (hand out, glue in and discuss)

WEEK 9

- Write intros: no lesson

WEEK 10

- Tuesday morning: Students to change feedback according to feedback
- Start working on main body paragraph 1 following PEER structure
- Follow up is to finish paragraph 1
- We will give feedback over holidays.

Appendix 13: Students' work

1 Ahmed (LCC Poor student) - First text about Matariki

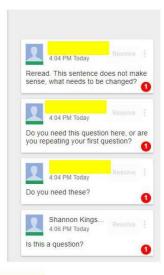
1:

Dear Jacinda Ardern,

Do you think we should have a public holiday for new zealand? I think matariki be a public holiday. Does new zealand need a public holiday? We need to bring back more maori culture and having a public holiday will help with that. Although, Is there a point in having two new years? <<<<i if we do, it may confuse people. Should we have a holiday for new zealand instead of using other countries and celebrations and traditions. After reading my piece of writing i hope i have persuaded you to have a public holiday.

Having a public holiday means we could bring back maori culture and celebrate our country's ways and myths. People are coming from round the world to stay at our country and bringing their celebrations and we are losing ours we need to bring it back. If we have a public holiday the people from other countries will celebrate the holiday and soon most of the world will know about it and more people will come to see our culture and celebration. That's one of the reasons i think matariki should be a public holiday.

Some people believe that having two new years will be confusing. People think that the whole world should have the same new year and celebrate the same date instead of having two.other people think its like celebrating the same thing two times and it's a waste of a day they could be working and earning money. That's why many people think that matariki should not be a public holiday.





2: After week 2

Do you think we should have a public holiday for new zealand? I think matariki should be a public holiday. Does new zealand need a public holiday? We need to bring back more maori culture and having a public holiday will help with that AShould Ithough, Is there a point in having two new years? <<<<i wife we do, it may confuse people we have a holiday for new zealand instead of using other countries and celebrations and traditions? After reading my piece of writing i hope i have persuaded you to have a public holiday for matariki.

Having a public holiday means we could bring back maori culture and celebrate our country's ways and myths. People are coming from round the world to stay at our country and bringing their celebrations and we are losing ours we need to bring it back by making a new holiday. If we have a public holiday the people from other countries will celebrate the holiday and soon most of the world will know about our new holiday and more people will come to see our culture and celebration. We will benefit from it because we will make money. That's one of the reasons i think matariki should be a public holiday.

Some people believe that having two new years will be confusing. People think that the whole world should have the same new year and celebrate the same date instead of having two other people think its like celebrating the same thing two times and it's a waste of a day they could be working and earning money. That's why many people think that matariki should not be a public holiday.

although , some people would prefer not to make matariki a public, I belive it should because we don't have any holidays known around the world as new zealand's. Instead we use other holidays from different countries. Its bacily saying were to lazy to come up with a holiday ourselves. People will come from everywhere to see our holiday and culture. That's why believe matariki should be a public holiday.

Having a public holiday will bring back maori culture but people may be confused about having two new years .it will be a holiday for ourselves instead of using other holidays. I hope my letter has persuasive you to consider having matariki as a public holiday.





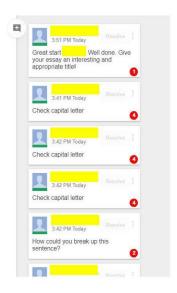
2 Ahmed (LCC Poor student) - Second text about plastic bags

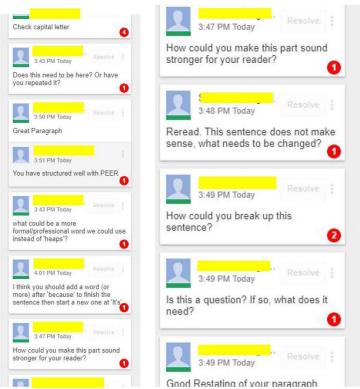
Week 8 Term 3:

Do you know what plastic bags do to our environment? I believe plastic bags should be banned. You and everyone else who use plastic bags are \$lowly killing our planet. This essay will persuade you to stop using plastic bags. If we use plastic bags We are murderers, how can we live knowing that we are murderers! If we carry on the way we are our sea will become plastic and we might as well say goodbye to sushi and other seafood. Just because plastic bags are easy to get and cost less does not mean we have to use them. A Lot of marine animals die each year, How would you feel if a species became extinct because of your plastic bag? This essay will persuade you to stop using plastic bags.

We are killing heaps of animals with plastic bags. If we carry on the way we are we will make a species extinct because of our plastic bags. To be specific 100,000 marine animals die each year because, it's kind of our fault we put it in the ocean and they think its food and eat, if they don't eat it they die to the they die to the chemicals that the plastic bag spreads in the water they dont know better but to eat it. What if your plastic bag made a animal species extinct.if we want our sea animals to live we need to stop using plastic bags.

Plastic bags we only use it once or twice and they are the thing you get with your groceries its like you don't have a choice they put your food in the bag and we take it. Plastic bags cost a lot less and are a lot easier to get





Week 10 Term 3: (Final)

name

Saving our environment

Do you know what plastic bags do to our environment? I believe plastic bags should be banned. You and everyone else who use plastic bags are slowly killing our planet. This essay will persuade you to stop using plastic bags. If we use plastic bags we are murderers, how can we live knowing that we are murderers! If we carry on the way we are our sea will become plastic, we might as well say goodbye to sushi and other seafood. Just because plastic bags are easy to get and cost less does not mean we have to use them. A lot of marine animals die each year, How would you feel if a species became extinct because of your plastic bag?

We are killing more animals then we need to with plastic bags. If we carry on the way we are we will make a species extinct because of our plastic bags. To be specific 100,000 marine animals die each year because of plastic bags, it's is of our fault we put the plastic in the ocean and they think its food and eat it. If they don't eat it they die to the chemicals that the plastic bag spreads in the water, they don't know better but to eat it. What if your plastic bag made a animal species extinct? If we want our sea animals to live we need to stop using plastic bags.

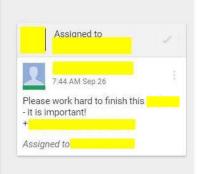
Plastic bags we only use it once or twice and they hand to you with your groceries its like you don't have a choice they put your food in the bag and we take it. Plastic bags cost a lot less and are a lot easier to get. The fabric bags cost more and are harder to get if they want us to go plastic bag free they should put the price down so we buy them and not use plastic bags.

Plastic bags are light and are really small so the slightest bit wind will carry the bag in the air and dump it either in the ocean or in a river that leads to the ocean. Once the bag is in the ocean it will kill hundreds of fish most of the time the plastic bag will wash up an shore and sometimes birds will eat them. Plastic bags form islands on the surface of the sea and it looks horrible imagen if the hole ocean looked like that there would be no sea animals of whales the ocean would be a layer of plastic bags. Heaps of people will lose their jobs and that's why we need to stop using plastic bags.

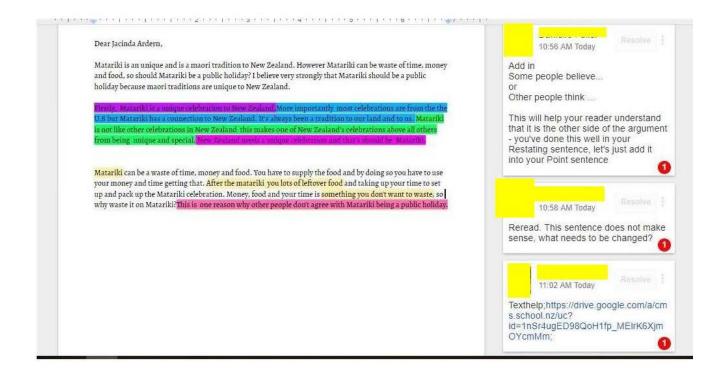
I think we need to stop using plastic bags not only because we will lose seafood but we will have no access to batches and holiday homes that need to be entered by boat. I hope my essay has persuaded you to stop using plastic bags just because they are cheap does not mean we have to use them.

student's

was away for 2 weeks due to sport then being sick.



3 Aïsha (LCC Poor student) - First text about Matariki

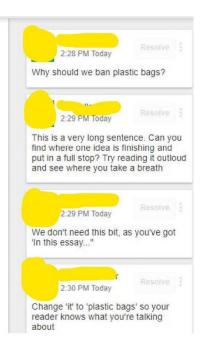


4 Aïsha (LCC Poor student) - Second text about plastic bags

Why plastic bags? Well, it's killing over 100 million marine animals and plastic bags take a very long time to break down and that's just two reasons but other people think that even if we did banned plastic bags the issue is going to. That is the reason that today in this essay i will be talking about these reasons and why it should and should not be banned.

Paragraph 1:

Our plastic bags, that we use, that makes its way into the sea then into the stomach of approximately 100 million marine animals. The reason why this is happening is because our plastic bags break down into smaller pieces and makes it way into the ocean and the marine animals eat them and die sadly. If animals are dying because of eating plastic bags it's not there fault it's ours. This shouldn't be happening and if we made a change and stopped using plastic bags we could help marine animals and maybe our earth.



Paragraph 2.

However, I understand that other people believe that reusable bags take longer to break down and damage our environment when they are made. If we start using paper bags we will start cutting down more trees to make paper and then into paper bags. If keeping plastic bags we wouldn't need to where about this. There are approximately 7 million trees being cut down every year around the world. Why should we start cutting down more trees for paper bags that even cant even stay a bag when it rains! When reusables bags dont to the trick, its plastic bags that will!

Nice sentence starter for the counter argument!

11:42 AM Today

Resolve

11:42 AM Today

Is the full stop in the right place? Re read outloud and see if you can see where it doesn't flow right

11:42 AM Today

Love this sentence!

Nice restating sentence:)

Paragraph 3.

WALT: Write a persuasive essay

Success Criteria

- I have included an introduction, 3 main body paragraphs and a conclusion
- I have used persuasive language
- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Plastic Bags Need to be Banned!

Why should we ban plastic bags? It's killing many marine animals. Plastic bags also take a very long time to break down, but other people think that even if we banned plastic bags it will take the same amount of time for reusable bags to break down. These are the reasons why i am writing in this essay why plastic bags should be banned.

Our plastic bags, that we use, are making its way into the sea and then into the stomach of approximately 100 million marine animals. The reason why this is happening is because our plastic bags break down into smaller pieces and makes it way into the ocean and the marine animals eat them and die sadly. The most five marine animals that are dying is sea turtles, seabirds, whales and our dolphins. If animals are dying because of eating plastic bags it's not there fault it's ours. This shouldn't be happening and if we made a change and stopped using plastic bags we could help marine animals and maybe our earth.

However, I understand that other people believe that reusable bags take longer to break down and damage our environment when they are made. If we start using paper bags we will start cutting down more trees to make paper and then into paper bags. If keeping plastic bags we wouldn't need to worry about this. There are approximately 7 million trees being cut down every year around the world. Why should we start cutting down more trees for paper bags, that even cant even stay a bag when it rains! When reusables bags dont to the trick, its plastic bags that will!

We don't take our time and neither to plastic bags. If plastic bags take years to break down. Our lands and seas will become a polluted area and our trees and other native plants and animals will die and world will become sadder than ever. But if ban plastic bags and get rid of these we could make a big change to New Zealand and around the world. Plastic bags take up to more than 450 years to decompose! Plastic bags are going to to take up more years to break down if dont stop them now or ever.

Plastic bags. We can not forget this problem because there are many animals dying and our land is becoming more polluted by the minute because of plastic bags. If we stop producing plastic bags we could put a stop to lots of world wide problems including marines animals lives and our land. But even if did go ahead with this, would reusable bags do the trick or will they end up being in the sea like plastic bags? I will strongly agree to ban these plastic bags and make our world a better place by doing the right things at the right time!

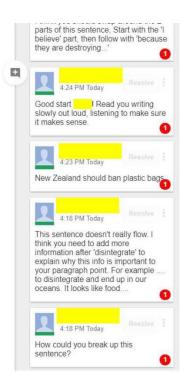
5 Fahrid (LCC Poor student) - Second text about plastic bags

Week 8 Term 3:

- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Why do you think we should ban plastic bags? Plastic bags are destroying our world, I believe we should stop using plastic bags. In this essay I will be explaining about how it kills animals and why it harms them, why people always use them, and why there is no point in using them. This will be an essay that will persuade you to swap to a different type of bag and tell you about what plastic bags are really doing to our environment.

Plastic bags kill marine animals. Plastic bags take 10 years for plastic bags to disintegrate and it looks like food to the animals so they eat it and then the die, plastic bags can also kill whales because if they can't find oil they will turn to whales for oil. 236,000 whales were killed in the 19th century just for their oil, whales might go extinct. But it's not just whales all animals die from plastic bags 100,000 marine animals die from plastic bags because they think it's food and it stays in them for 20 years because they take so long to disintegrate, but it's not just marine animals it's also seabirds. Just from this you can already see how much damage plastic bags are doing and this is a point why i think we shouldn't have them.





Week 10 Term 3:

- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Ban the plastic bags

Why do you think we should ban plastic bags? I believe that we should not use plastic bags because it's destroying our world. In this essay I will be explaining about how it kills animals and why it harms them, why people always use them, and why there is no point in using them. This will be an essay that will persuade you to swap to a different type of bag and tell you about what plastic bags are really doing to our environment.

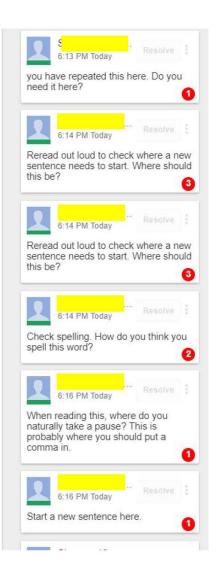
Plastic bags kill marine animals. Plastic bags take 20 years for plastic bags to disintegrate and they stay in the ocean drifting like jellyfish and it looks like food to the marine animals so they eat it and then the die. Plastic bags can also kill whales because if they can't find oil they will turn to whales for oil. 236,000 whales were killed in the 19th century just for their oil, they use the whales iol to make plastic bags but only a small portion of the plastic bags that are being preduce, whales might go extinct. But it's not just whales all animals die from plastic bags, 100,000 marine animals die because they think it's food like jellyfish and it stays in them for 20 years because they take so long to disintegrate, but it's not just marine animals it's also seabirds, they kill 1,000,000 seairds. Just from this you can already see how much damage plastic bags are doing and this is a point why i think we should ban them.

When ever you go to a supermarket plastic bags are just there. Counters all ways have them because they always ask you and get you to buy them. Counters hold plastic bags on hand and when your there and buying your groceries and you just take one there so easy to take and get it. There so easy to get for super markets and this is why i believe we should ban them because it's so easy to take them. This might be a good reason to use them but i still believe we should ban plastic bag.

There is no point in using them. You can just use fabric bags your trollie and many other things to carry your groceries out to your car. There is a lot of other ways to get your groceries to your car other than a plastic bag, every plastic bag you take out to your car kills an animal maybe even thousands of them, so plastic bags are not the only way to take your groceries to your car and take them home. Even using the shopping trolley for a bit longer can save an animal and hurt a person. So this is why i think we should ban plastic bags because we are lazu.

So with all of these points I think we should ban plastic bags and stop using them for the future and for animals so stop being lazy people and ban plastic bags.





- Triave odea nie i EEN anactore

- I have included EVIDENCE to support my argument (facts from my research)

Ban the plastic bags

Why do you think we should ban plastic bags? I believe that we should not use plastic bags because it's destroying our world. In this essay I will be explaining about how it kills animals and why it harms them, why people always use them, and why there is no point in using them. This will be an essay that will persuade you to swap to a different type of bag and tell you about what plastic bags are really doing to our environment.

Plastic bags kill marine animals. Plastic bags take 20 years to disintegrate and they stay in the ocean, drifting like jellyfish. It looks like food to the marine animals so they eat it and then the die. Plastic bags can also kill whales because if they can't find oil they will turn to whales for oil. 236,000 whales were killed in the 19th century just for their oil, they use the whales oil to make plastic bags. But only a small portion of the plastic bags that are being preduce, whales might go extinct. But it's not just whales, all animals die from plastic bags. 100,000 marine animals die because they think it's food like jellyfish, but it's not just marine animals it's also seabirds, they kill 1,000,000 seairds. Just from this you can already see how much damage plastic bags are doing and this is a point why i think we should ban them.

When ever you go to a supermarket plastic bags are just there. Counters always have them because they always ask you and get you to buy them. Counters hold plastic bags on hand and when your there and buying your groceries and you just take one there so easy to take and get it. This might be a good reason to use them but i still believe we should ban plastic bag.

There is no point in using them. You can just use fabric bags, your trollie and many other things to carry your groceries out to your car. There is a lot of other ways to get your groceries to your car other than a plastic bag, every plastic bag you take out to your car kills an animal maybe even thousands of them. Plastic bags are not the only way to take your groceries to your car and take them home. Even using the shopping trolley for a bit longer can save an animal and hurt a person. So this is why I think we should ban plastic bags because we are lazy.

So with all of these points I think we should ban plastic bags and stop using them for the future and for animals so stop being lazy people and ban plastic bags.

By

6 Nettie (LCC Middle student) - First text about Matariki

1: Week 9 Term 2

Dear Jacinda Ardern

Do you think a matariki should be a public holiday? because I do. Firstly I would like to point out that matariki is a way to celebrate New Zealand and our culture that has been around for hundreds of years also we don't have as many public holiday as other countries and one of those to me should be matariki. Last of all there are some cons many people think that having a public holiday is a waste of time when they could be working and earning money. By the time you have read to the end of this letter I hope you choose that we should have public holiday even though some people think its a waste of time it also has been around for centuries.

One of the reasons that i think matariki should be a public holiday is because it has been around for a very long time and some maori tribes or iwi have been celebrating since they can remember. The way that people celebrate matariki is they usually have a hungi or have a get together with friend or family to celebrate the year they have just had and the new year coming. This is why i think it should be a public holiday.





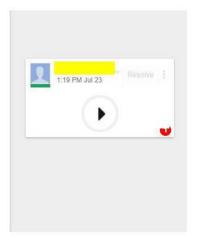
2: Week 1 Term 3 - I'm not sure what has happened with _____'s work here, it seems a lot is missing. I will check with her and see if we can get back the missing bits.

r hundreds of years also we don't have as many public holiday as other countries and one and one that I think that we should have is matariki. Last of all there are some cons many people think that having a public holiday is a waste of time when they could be working and earning money. By the time you have read to the end 9of this letter I hope you choose that we should have public holiday

that many people celebrate matariki is they usually have a hungi or have a get together with friends or family to think about the year they have just had and celebrate the coming year. This is why I think it should be a public holiday.

Some pf work and stay at home doing nothing not even thinking why they have a public holiday. Most people if they do know what it is for they just can't be bothered getting up to celebrate our New Zealand culture

But even if people think its a waste of time or don't even know what the public holiday is for i think that it should be a public holiday because it is our special New Zealand culture



3: After week 2.

Dear Jacinda Ardern

Do you think a matariki should be a public holiday? Because I do. Firstly I would like to point out that matariki is a way to celebrate New Zealand culture that has been around for hundreds of years also we don't have as many public holiday as other countries and one and one that I think that we should have is matariki. Last of all there are some cons many people think that having a public holiday is a waste of time when they could be working and earning money. By the time you have read to the end of this letter I hope you choose that we should have public holiday

One of the reasons that I think matariki should be a public holiday is because it has been around for a very long time. Some maori tribes or iwi have been celebrating since they can remember. The way that many people celebrate matariki is they usually have a hungi or have a get together with friends or family to think about the year they have just had and celebrate the coming year. This is why I think it should be a public holiday.

Some people think that having another public holiday is a waste of time when they could be at work earning money to provide for their family. But other people just think yay we can have another day off work and stay at home doing nothing not even thinking why they have a public holiday. Most people if they do know what it is for they just can't be bothered getting up to celebrate our New Zealand culture.

But even if people think its a waste of time or don't even know what the public holiday is for i think that it should be a public holiday because it is our special New Zealand culture

Although some people prefer not to make matariki a public holiday because they could be working and earning money, I think that it should be because maori is our special New Zealand culture. In other countries they have their own cultural day when they celebrate their culture so why can't we. We also don't have as many public holidays as other countries, New Zealand has 11 and india has the most public holidays with 21. I know that most people don't like to have the thought of making matariki a public holiday in my opinion i think that we should.

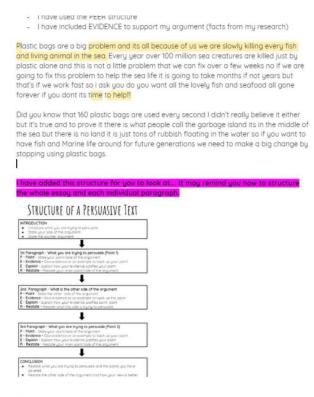
So trying to decide if matariki should be a public holiday is going to be a big job with the people the think that matariki is a waste of time, don't know what it is or just want to be working to earn money i hope you think that it should be a public holiday because it would be a shame not to carry on the tradition of celebrating matariki if has been around for hundreds of years.

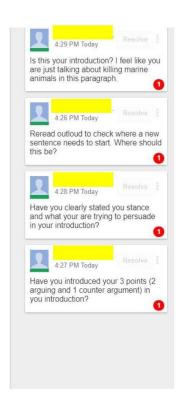




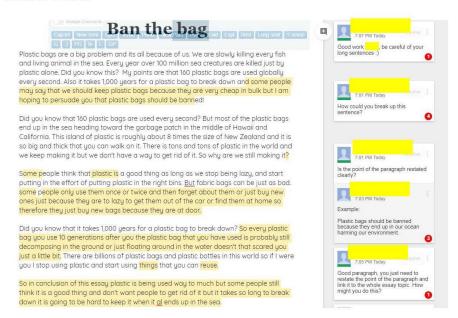
7 Nettie (LCC Middle student) - Second text about plastic bags

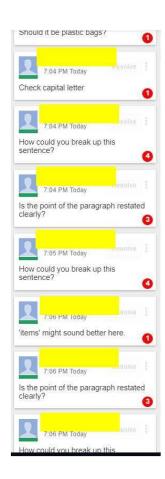
Week 8 Term 3:





Week 10 Term 3:





Week 10 Term 3: (Final)

- Hilling open the LEEU structore
- I have included EVIDENCE to support my argument (facts from my research)

Ban the bag

Plastic bags are a big problem and its all because of us. We are slowly killing every fish and living animal in the sea. Every year over 100 million sea creatures are killed just by plastic alone. Did you know this? My points are that 160 plastic bags are used globally every second. Also it takes 1,000 years for a plastic bag to break down. Some people may say that we should keep plastic bags because they are very cheap in bulk. But I am hoping to persuade you that plastic bags should be banned!

Did you know that 160 plastic bags are used every second? But most of the plastic bags end up in the sea heading toward the garbage patch in the middle of Hawaii and California. This island of plastic is roughly about 8 times the size of New Zealand and it is so big and thick that you can walk on it. There is tons and tons of plastic in the world and we keep making it but we don't have a way to get rid of it. So why are we still making it? This is one of the reasons why we should ban plastic as they all just end up in the ocean.

Some people think that plastic bags are a good thing as long as we stop being lazy, and start putting in the effort of putting plastic in the right bins. But fabric bags can be just as bad. Some people only use them once or twice and then forget about them or just buy new ones, just because they are to lazy to get them out of the car or find them at home. So therefore they just buy new bags because they are at door of the supermarket. Even though some people think that plastic bags aren't bad but if we keep up the use of plastic bags we are going to eventually kill the planet. So the plastic bag should be banned.

Did you know that it takes 1,000 years for a plastic bag to break down? So every plastic bag you use 10 generations after you the plastic bag that you have used is probably still decomposing in the ground. Or maybe just floating around in the water, doesn't that scared you just a little bit. There are billions of plastic bags and plastic bottles in this world so if I were you I stop using plastic and start using items that you can reuse. So to stop plastic bags littering the plant help ban them by not using them.

So in conclusion of this essay plastic is being used way to much. But some people still think its a good thing and don't want people to get rid of it, but it takes so long to break down it is going to be hard to keep it when most of it ends up in the sea.

By 1

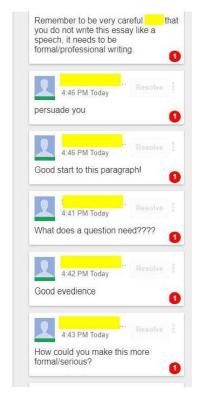
8 Vincent (LCC Middle student) - Second text about plastic bags

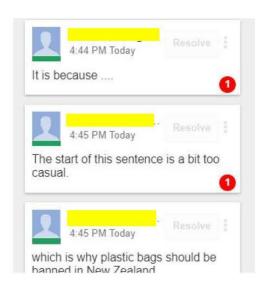
Week 8 Term 3:

- i nave usea persuasive languagi
- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Plastic bags, what's the point? well we don't need them, except the fact that we are lazy, but then again there are still reusable bags. This essay will explain why we don't need plastic bags. My first point is that plastic bags kill animals, my second point is that plastic bags are easy to make and my last point is that reusable bags can be used over and over again.

Did you know plastic bags kill innocent turtles. 100,000 marine animals die a year because of plastic and approximately 1 million seabirds die from the same cause. You may be asking why do animals eat, plastic? That's because plastic bags look like jellyfish and other smaller marine creatures. All in all plastic bags kill more animals than needed.





Week 10 Term 3: (Final)

Success Criteria

- I have included an introduction, 3 main body paragraphs and a conclusion
- I have used persuasive language
- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Plastic bags? we don't need them, except for the fact that we are lazy, but then again there are still reusable bags. This essay will persuade you why we don't need plastic bags. My first point is that plastic bags kill animals, my second point is that plastic bags are easy to make and my last point is that reusable bags can be used over and over again.

Did you know plastic bags kill innocent turtles? 100,000 marine animals die a year because of plastic and approximately 1 million seabirds die from the same cause, why do animals eat, plastic? It is because plastic bags look like jellyfish and other smaller marine creatures. Plastic bags kill more animals than needed. Which is why plastic bags should be banned in New Zealand.

plastic bags have many cons but there is a pro. Plastic bags are easy to make, meaning that humans can mass produce them for the benefit of our own laziness. Plastic bags are a wonder of modern technology, polyethene plastic pellets that get melted down and are then turned into the handy plastic bags that we use. Plastic bags may be bad for the environment but there whenever we need them.

What about reusable bags, made of cotton and good for the environment they are what the world needs. If you don't have any reusable bags that's ok most popular supermarkets and some smaller ones are converting to only reusable bags that cost more but you can take them back without buying a new one. Supermarkets want to keep their customers coming back so they're probably going to convert to reusable bags

I think plastic bags should be banned because plastic bags kill animals all over the world but plastic bags are easy to make but then again reusable bags are a much better alternative. What side do you choose? Remember if people want it then there will always be a black market for it.

9 Mimi (LCC Rich student) - First text about Matariki

resolve this issue.

However I understand that there are many people out there that believe Matariki should not be made a public holiday. This may be because for every public holiday we have, we need to make it up again by having an extra day at school. As a result of this, we could quite simply settle this issue by making the christmas holiday slightly shorter. As there's a 6 week holiday at the end of each year we could easily cut it back by one day. I believe that this is a great opportunity for school students to learn about our rich heritage and maori culture. Although there are many people out there that believe otherwise, I believe that matariki should be made a public holiday in new zealand



10 Mimi (LCC Rich student) - Second text about plastic bags

WALT: Write a persuasive essay

Success Criteria

- I have included an introduction, 3 main body paragraphs and a conclusion
- I have used persuasive language
- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Why plastic bags should be banned in New Zealand

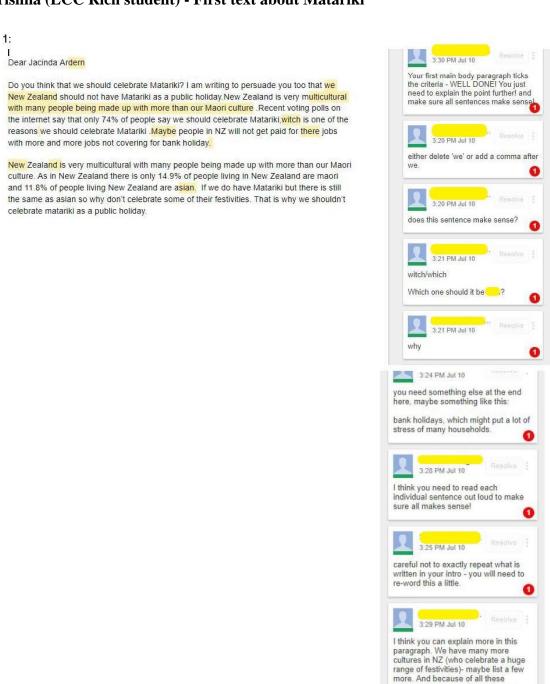
Plastic bags kill over One Million marine animals each year, and is estimated that there is over One Hundred Million tons of plastic in the ocean around the world. Each year, the population of sea animals decreases due to unintentionally consuming our waste. I believe that in New Zealand, we should ban plastic bags, as they are harming our marine and sea life. On the other hand, if plastic bags were banned, we would all need to remember to bring our reusable bags. It could just be easier to leave it to the shopkeepers, to automatically give you one. Another con of having plastic bags is the litter that they are causing. There are many reasons why plastic bags should be banned, and these are a few of the many reasons why I believe that plastic bags should be banned in New Zealand.

Firstly, I believe that plastic bags should be banned in New Zealand as they are killing our marine life. Over One Million marine animals are killed each year due to consuming our plastic bags. Turtles, Birds, Fish, Whales and Sea Lions are the top five animals affected by our plastic. Turtles will often mistake plastic for Jellyfish. They will digest the plastic bag and often die of starvation after their digestive tract becomes blocked. These animal populations are decreasing rapidly and it is hard to stop this issue. Six of the seven Turtle species are still endangered and are getting worse. Conservation efforts need to continue for the Turtle population to grow. Clearly we need to ban plastic bags and stop this ongoing issue! By putting plastic bags 'out of the picture,' we could increase marine animal population. This is why I believe that plastic bags should be banned in New Zealand.

However, I understand that there is another side to this argument. Many believe that the plastic bag is "strong, cheap and convenient," hence why they consider plastic bags useful. In one year, New Zealanders use over one billion plastic bags, which means on average, each of us use 250 plastic bags every year. Plastic bags are cheap and accessible, which is why they are considered convenient. Many believe that plastic bags should not be banned as they cost only \$25 dollars each year; but think what that twenty five dollars is doing to our earth. Although there are many people out there that believe otherwise. I believe that plastic bags should be banned in new zealand.

Secondly, I believe that plastic bags should be banned in New Zealand as they are causing litter. "Keep New Zealand Beautiful", was founded as the Litter Council in 1969, to help prevent litter in New Zealand. Plastic bags are the second most commonly found

11 Krishna (LCC Rich student) - First text about Matariki



cultures why should we not have a public holiday?

More explain please!

2:

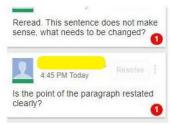
Dear Jacinda Ardern

Do you think that we should celebrate Matariki? I am writing to persuade you too that .New Zealand should not have Matariki as a public holiday.New Zealand is very multicultural country with more people living in New Zealand with different culture then the Maori culture .Recent voting polls on the internet say that only 74% of people say we should celebrate Matariki,which is one of the reasons why we should celebrate Matariki .People in NZ will not get paid for their jobs with more and more jobs not covering for bank holiday,which might put a lot stress on many households.

New Zealand is a very multicultural country with many people with different cultures living in New Zealand . In New Zealand there is only 14.9% of people are maori and 11.8% of people living New Zealand are Asian. We have a a lot of different cultures and festivals in New Zealand so if we are going to Celebrate a popular religion or festive then why don't we celebrate like chinese New Year. That is why we shouldn't celebrate matariki as a public holiday.

Voting polls say that we should celebrate Matariki . Poles on the internet shows that 74% people in New Zealand say that we should celebrate Matariki although the time difference for each city. So if ¾ of people on that poll say that they would like to celebrate Matariki then shouldn't this raise more awareness. This is why we should maybe have a vote to celebrate matariki.





3: After week 2 Term 3

Do you think that we should celebrate Matariki? I am writing to persuade you too that New Zealand should not have Matariki as a public holiday. New Zealand is very multicultural country with more people living in New Zealand with different culture then the Maori culture . Recent voting polls on the internet say that only 74% of people say we should celebrate Matariki, which is one of the reasons why we should celebrate Matariki. People in NZ will not get paid for their jobs with more and more jobs not covering for bank holiday, which might put a lot stress on many households.

New Zealand is a very multicultural country with many people with different cultures living in New Zealand . In New Zealand there is only 14.9% of people are maori and 11.8% of people living New Zealand are Asian. We have a a lot of different cultures and festivals in New Zealand so if we are going to Celebrate a popular religion or festive then why don't we celebrate like chinese New Year. That is why we shouldn't celebrate matariki as a public holiday.

Do people want want to celebrate Matariki . Poles on the internet shows that 74% people in New Zealand say that we should celebrate Matariki although people know they would see Matariki in different times of the day. So if ¾ of people on that poll say that they would like to celebrate Matariki then should it be holiday? This is why we should have Matariki a public holiday.

Although some people prefer to make Matariki a public holiday, I believe it Shouldn't be because households will not get paid. Some companies don't pay their employees on public holiday which can leave a lot of stress for some. Because if you can't work on that day but you still have to pay for power and groceries that could leave a lot of stress for some. This is one of the reasons why we shouldn't celebrate matariki.

This why New Zealand Shouldn't celebrate Matariki. New Zealand is very multicultural country with more people living in New Zealand with different culture then the Maori culture. But 74% of NZ people say we should celebrate Matariki. But celebrating Matariki can cause a lot of stress to some household who don't get paid for public holidays. Would you really want to have another celebration that isn't feasible.

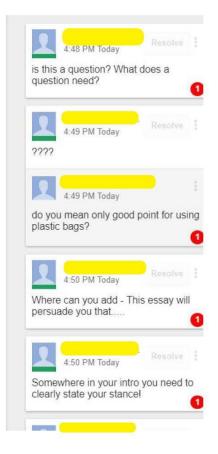


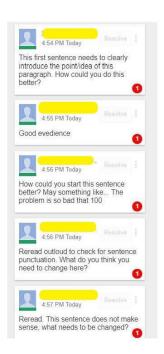
12 Krishna (LCC Rich student) - Second text about plastic bags

Week 8 Term 3:

The plastic bag has been used for too long. Db you even know how many plastic bags us kiwis use and how much wildlife dies from the waste that is in the ocean. The only point is that it is easy to make and use. There is a island that is the size of france fill just with plastic waste floating in the ocean. But if we change are ways we can stop the plastic bag for.

How many people actually use the plastic bag and how much sea life dies a year? New Zealand alone use one billion plastic bags every year, and 68% of those plastic bags end up in our ocean which is having a negative outcome on our sea life. It is so bad that 100 million sealife die of plastic swallowing every single year. Considering that there is only four million people living in New Zealand this is horrific for how many plastic bags we use and how many sea life we kill. That is why we really need to stop the plastic bag.





Week 10 Term 3:

Give plastic bag the boot

The plastic bag has been used for too long. Do you even know how many plastic bags us kiwis use and how much wildlife dies from the waste that is in the ocean? The only good point is that it is easy to make and use . There is a island that is the size of france fill just with plastic waste floating in the ocean. This essay will persuade you should stop the plastic bag for.

Today I will I will explain how much plastic bags and what happened to the sea life. How many people actually use the plastic bag and how much sea life dies a year? New Zealand alone use one billion plastic bags every year, and 68% of those plastic bags end up in our ocean which is having a negative outcome on our sea life. The problem is so bad that 100 million sealife die of plastic swallowing every single year .Considering that there's only four million people living in New Zealand and we use one billion plastic bags every year we could kill all sea life in only 30 years.

The opposing side is that it is easy to make and use the plastic bag. Ever wondered why people started making plastic bags? It's because is really easy to make, it is so easy that one trillion plastic bags can get made in a year. It is also the perfect size and shape for supermarkets to use. So we might as well keep the bag because it's versatility.

Have you ever heard of a island made solely full of plastic? Well it is true and it is getting bigger and bigger every single day. It size is already as big as france and in 20 year it could grown to the size of america. If you think that this plastic is not harmful in china there is barges dumping 100 tones of toxic plastic into our ocean every day. This is why we need to ban the use of plastic bags in NZ

So in conclusion, if we want to do earth some good we need to ban the use of the plastic. Don't do it for me but the sealife that dies every minute. If we don't stop the rubbish on that island will grow and grow. Do you really think that we should ban the one use plastic bag?



6:54 PM Today

6:54 PM Today

6:54 PM Today

Reread. This sentence does not make sense, what needs to be changed?

Change to: they are

an

Week 10 Term 3: (Final)

WALT: Write a persuasive essay

Success Criteria

- I have included an introduction, 3 main body paragraphs and a conclusion
- I have used persuasive language
- I have used the PEER structure
- I have included EVIDENCE to support my argument (facts from my research)

Give plastic bag the boot

The plastic bag has been used for too long. Do you even know how many plastic bags us kiwis use and how much wildlife dies from the waste that is in the ocean? The only good point is that they are easy to make and use. There is an island that is made up of plastic waste that has grown to the size of France. This essay will persuade you why you should stop plastic bags.

Plastic bags kill our marine animals. New Zealand alone use one billion plastic bags every year, and 68% of those plastic bags end up in our ocean which is having a negative outcome on our sea life. The problem is so bad that 100 million sealife die of plastic swallowing every single year. Considering that there's only four million people living in New Zealand and we use one billion plastic bags every year we could kill all sea life in only 30 years. That is why we should ban plastic bags because it is killing our precious marine life.

The opposing side is that it is easy to make and use the plastic bag. Ever wondered why people started making plastic bags? It's because is really easy to make it is so easy that one trillion plastic bags can get made in a year. It is also the perfect size and shape for supermarkets to use. So we might as well keep the bag because of its versatility.

Have you ever heard of an island made solely full of plastic? Well it is true and it is getting bigger and bigger every single day. It's size is already as big as France.In 20 years it will grown to the size of America. If you think that this plastic is not harmful in China there is barges dumping 100 tones of taxic plastics into our ocean every day. This is why we need to ban the use of plastic bags in NZ

So in conclusion, if we want to do Earth some good, we should to ban the use of the plastic. Don't do it for me but the sealife that dies every minute. If we don't stop the rubbish on that island will just grow and grow. Do you really think that we should ban the one use plastic bag?

Appendix 14: Online survey sent to students- Phase Four



4. Have you found that writing on Google Docs allowed you to revise/ redraft yo work more easily, the same or was it more difficult? *			
	Tick all that apply.		
	 it was easier to redraft my work than in my book it was the same as writing in my book it was more difficult to redraft my work on Google Docs than in my books 		
5.	Was it easier, the same or more difficult to understand your teacher's written feedback when she provided it on Google Docs? *		
	Tick all that apply.		
	easier than in my book the same as in my book		
	more difficult than in my book		
6.	Please give an example of how you have made use of your teacher's feedback to improve your persuasive writing skills *		

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Google Forms

Appendix 15: Should Matariki be a public holiday in New Zealand: Pros and cons

Should Matariki be a public holiday in New Zealand?				
Pros	Cons			
It's a Maori tradition that has been around for centuries.	School requires children to attend a certain amount per year.			
Children get an extra day off school.	Some ppl may think its a waste of \$.			
Maori and NZ are two different things.	FInancial constraints for low income earners.			
	Matariki- are all NZers interested??			
	Does NZ need two NYs??			
Examples of other Countries that have a news years/solstice celebration that is not on the 1st of January.				
Chinese NY- Feb				

Appendix 16: Why formative assessment should be a priority for every teacher

	Where the learner is	Where the learner is	How to get there		
	going	now			
teacher	Clarifying, sharing,	Engineering effective	Providing feedback		
	and understanding	discussions, tasks,	that moves learning		
	learning intentions	and activities that	forward		
	and success criteria	elicit evidence of			
		learning			
learner Activating students as owners of learning		owners of their own			
		learning			
Adapted from Wiliam & Leahy, 2015					