Dynamic Duos: Dialogic Learning in the Year 8 secondary classroom.

Candidate number: 1058747

Abstract

This paper explores how to incorporate effective pair-based work in the secondary classroom in relation to dialogic learning. Dialogic learning has been researched in small groups and in primary schools but there is little research on how to embed it in pairs, in secondary schools. This intervention focuses on two year 8 classes over one term, or two units of teaching, and investigates whether pairs can develop exploratory talk that leads to dialogic learning. Methodologically, it combines oral lesson recordings, a pre- and post-intervention questionnaire looking at students' perspectives on talk and learning in general, and field notes from teacher observations. The findings show that student confidence levels have improved over the course of the intervention, and students are able to improve their discourse skills in pairs in the classroom. It also demonstrates the time it takes to embed dialogic learning and the reflection required to transfer discussion skills used from one unit to the next.

Pair-based learning can be an effective form of dialogic learning, but time is required to develop the skills needed and active teaching of discussion, turn-taking, handling of errors and questioning are important elements of developing this practice. This research supports the use of dialogic learning in the classroom as a vital element for learning long-term and for transferring skills beyond the classroom. This paper offers transcripts of student discussions at multiple points throughout the intervention, and insights into students' thoughts about talk and pair-based work in the classroom, along with teacher observations on how the resources used were effective in creating a dialogic classroom.

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Introduction

Engzell, Frey and Verhagen (2021) researched the impact of school closures in the Netherlands. Even with a short lockdown period, school funding and consistent broadband access, they ascertained that students made little or no progress when schools were closed. With a longer period of remote learning in the UK, these findings can be extrapolated to recognise the further deficit in student learning. My current school's Head Teacher and Lead Practitioner for English noted that students' communication skills in particular have been negatively impacted. We believe that fewer chances for discussion, debating and asking questions orally had vastly reduced their attention and social skills. I have also noticed that on-task interactions in the classroom are significantly shorter than previous years and students are struggling to establish and develop their ideas both written and orally. The works of Neil Mercer (2008) who explains the links between speech and thinking in child development, and Robin Alexander (2020) who demonstrates the importance of talk for engaging student interest, and developing and expanding ideas, helped to clarify what students seemed to have been missing over the last couple of years. I decided to follow the lead of these two advocates of dialogic pedagogy by trying to help my students learn how to communicate orally in an academic setting. Reading Mercer (1995), particularly highlighted to me that my students were primarily using disputational talk in the classroom, and this was confirmed in my project last year exploring what talk looked like in my year 10 classroom. Considering this, I wanted to know how to move students to cumulative, then exploratory talk. Alexander (2020) explains that structured talk, requiring deeper thought, can positively impact learning and engagement. This led me, in collaboration with my school, to focus on paired work, which can be more easily structured, thereby providing more opportunities for each person to contribute. The ideal situation would be helping students to adapt these paired skills to small groups, then whole class discussions.

Through my research, I became a convert to dialogic learning, yet struggled to find what it looks like or how it can be implemented in the secondary classroom. I found research linked to dialogic learning in primary schools, particularly through the lens of guided reading sessions, as discussed in the research conducted by Skidmore et al. (2003), and through Mercer (2008) whose most substantial research is based on ages 8-13. I am also interested in improving cognitive function beyond oracy, as this can still result in elegant yet disputational talk. How was I to help develop thinking and social skills through communication? I discovered Mercer et al.'s *Thinking Together* resources updated online for 2022. These practical lessons and resources help guide teachers to teach their pupils not only the

importance of talk, but how it can be done. My goal is to influence the limited dialogic capacity currently shown by most pupils in my classroom to help improve discussion, thinking and reasoning skills.

Context

I currently work at a non-selective state comprehensive school. The International Baccalaureate is taught at Key Stages 3 and 5 with National Curriculum GCSEs at Key Stage 4. We have approximately 1420 pupils across the school, with just over half of those coming from some of the highest income areas in England. The rest of the pupil population come from some of the lowest income areas in the country. Based on our EHCPs and SEND data, our percentage of students with additional needs is 13.4%, just above the national average of 12.6%. The school also supports the 12% on free school meals, and 14% of the cohort listed as Pupil Premium. We are a high achieving school with 40-45% of pupils achieving the top grades of 7-9 in their English Language and Literature GCSEs. However, 13-14% of each cohort fail their examinations. Students are in mixed ability groups throughout Key Stage 3 then set for Key Stage 4.

This research focuses on my mixed-ability Year 8 classes, ages 12-13. There are 241 pupils in Year 8: 139 males and 102 females. I teach two of these classes with 26-30 students in each; 7 students are considered to have additional needs and 8 are on the Pupil Premium register. Given the diverse context of the school, I decided that mixed groups from a variety of different socio-economic and social contexts would provide a unique insight into the impact of dialogic learning in the classroom. Year 8 provides an opportunity to experiment with curriculum and trial research-based ideas and resources with a focus to improving best practice, in a low-stakes testing environment.

Considering this context, my research questions are:

What is dialogic learning?

To what extent is dialogic learning beneficial to students?

What are some useful practices for dialogic learning in the classroom?

Literature Review

What is dialogic learning?

The term ‘dialogical’ is often attributed to the Russian philosopher Mikhail Bakhtin (Wegerif, 2000) who wrote about the philosophy of language. Based on his theory, Fisher (2011) describes the term ‘dialogic’ as “the kinds of talk that facilitate learning and stimulate thinking” (p. 90) and includes the “awareness of self, task and environment” (Fisher, 2011, p. 90). This term is taken further by Robin Alexander, who applied this theory to child development and learning in schools. He argues that children need to be given the time and space to think for themselves, or they will not reach their full capacity to learn and embed language, and further contends that it is the role of the teacher to provide those opportunities (Alexander, 2020) through dialogic learning, though the term ‘dialogic pedagogy’ is credited to the educator Paulo Freire (Skidmore & Murakami, 2016). Alexander (2004) and Fisher (2011) suggest that talk in the classroom should be used to help students expand their thinking and explore new ideas, explaining that “defining dialogue as ‘conversation’” (Alexander, 2020, p. 36) in a classroom context is insufficient.

If dialogic learning is not defined as conversation between teachers and students, then what is it and how is knowledge gained by our students through this practice? Mayer (2012) explains that knowledge can be understood “as an ever-evolving matrix of cultured impressions and understandings that each of us continually constructs” (p. 2). Skidmore and Murakami (2016) clarify that, in dialogic classrooms, the teacher is still an authority that steers conversation and the development of knowledge, as opposed to allowing conversation that is free and unfocused. Alexander argues that for students to learn they need to be involved in the construction of this knowledge, that “both active student engagement and constructive teacher intervention” are vital for knowledge to be gained and this can only happen through talk (2020, p. 13). Essentially, the calibre of learning is inextricably linked to the standard of talk in the classroom (Nystrand, 1997; Skidmore, 2016) highlighting the importance of teachers as facilitators, not transmitters, of knowledge.

This standard of talk is supported by the research of Nystrand et al. in 1997. Skidmore (2016) summarises this research in the text Opening Dialogue as a “large-scale study of the effects of patterns of classroom discourse on student learning in 400 English lessons in 25 US high schools” (p.99). It supports the efficacy of dialogic teaching with improved results in written tests for those students taught with this approach (Skidmore, 2016). These “results support the hypothesis that dialogically organised instruction is superior to monologically

organised instruction in promoting student learning" (Skidmore, 2016, p. 99) showing that an active teacher approach is superior to teacher-student recitation.

The importance of talk was noted as far back as 1986 in the works of soviet psychologist and philosopher Lev Vygotsky. According to Fisher (2011), Vygotsky's (1986) philosophy argues reflection on talk being "an essential factor in human learning" (p. 101). In addition, Alexander (2020) reiterates Vygotsky's (1986) belief that thinking develops from group talk back to the individual and not the other way around. Based on the research conducted so far (Alexander, 2004, 2017; Barnes, 1969; Cazden, 2001; Mercer, 2008; Resnick, et al., 2010), Alexander (2020) states that there is clear and reproducible evidence that talk that is challenging and purposefully structured has a strong impact, not only on student participation, but their overall learning experience.

Therefore, for dialogic learning to happen, there needs to be purposeful dialogue between students, and between teachers and students. Mercer (2008) further supports Alexander's (2004) earlier research "which shows how changes in patterns of teacher-pupil interaction increase pupils' active participation and motivation" (p. 92) and advocates for attention to be given to oracy in schools, as this supports students in improving their learning and thinking skills through developing language use in a variety of contexts (Mercer at al. 2017).

However, the United Kingdom has had a tentative and sometimes hostile view towards talk in the classroom. In 1921, the Board of Education produced the Newbolt Report which highlighted the key areas needed when teaching English as: the study of language, appreciation of English literature, and communication (Thompson, 2014). Despite this, spoken language was not added as part of the curriculum until the 1960s, and even then, it was not until the late 1980s and 90s, when the National Oracy Project launched, that curriculum started to properly change (Jolliffe, 2007). However, by 2014 the speaking and listening component of the English Language GCSE (General Certificate of Secondary Education) was removed due to concerns over accurate marking of the assessment (Ofqual, 2013, p. 2; Mercer at al. 2017).

Howe et al. (2019) suggests that this might be why outcomes are rarely assessed through talk. She also explains that, when researching progress in schools, dialogue is not properly analysed and there are often no recordings to support the research, meaning the data is unreliable. Howe et al. (2019) argues that when research is conducted into the effectiveness of dialogue, the sample sizes are small and too many aspects of dialogue are examined, making it difficult to track what was useful and what was not.

Nonetheless, since Nystrand's work in 1997, there has been a large-scale research project that was conducted between 2013 and 2014. The Education Endowment Foundation funded a collaboration between School 21 in London and researchers at the University of Cambridge to build a curriculum focused on the specific teaching of oracy in schools during a two-year project (Mercer at al. 2017). The result of this research is the 'Oracy Assessment Toolkit' which teachers used with students ages 11 to 12 and which helped teachers to assess progress and competency (Mercer at al. 2017). Students and teachers felt that the tasks comprehensively tested communication skills (Mercer at al., 2017). Mercer et al. (2017) explain that there were three major findings from this project: teachers can be given a framework to help them understand the types of language skills students will need to support themselves in differing social situations; a way of assessing these skills in a variety of situations; and a mark scheme to assess and track student competency levels over time.

Though Haworth (2001) argues that speaking in the classroom, especially when developing oracy skills, must be more than simple communication practices organised by the teacher; these oracy skills must be developed into effective dialogic discussions. Fisher (2011) explains that, for dialogue to be effective, "students need to be trained in its skills", meaning students need to be able to listen and be open to hearing different ideas from their own peers, they need to be able to ask constructive questions, and they need to learn how to think "critically and creatively" about the topic (p. 93). Good teaching, according to Thompson (2014), is not just about learning outcomes but the process of learning. Teachers need to find a balance between traditional teaching practices and include cognitively challenging talk in every lesson (Fisher, 2011). The implementation of dialogic learning has shown improved results in cooperative learning and in reasoning skills (Wegerif, 2000) and removes pressure from "any word ever being final" (Skidmore, 2000, p. 284), creating a safe atmosphere for students to experiment with language, ideas, and shared learning. Alexander (2020) believes this should be taken further as

> *"the pre-eminent focus of oracy is student talk, and such talk by its nature does not always receive or require a response and can be about anything; whereas dialogue [is] pedagogical in intent […] and it gives considerable if not equal attention to the talk and thinking of the teacher"*
>
> *(Alexander, 2020, pp. 76-77).*

Suggesting that developing oracy skills is just the first step towards a dialogical approach to learning.

Mercer (2008) confirms some features of dialogue are important for dialogic learning to take place. Researchers agree that dialogue in the classroom should be *collective*, where communal learning and investigation take place; *reciprocal*, where students listen, share different ideas and consider those varying ideas; *supportive*, where students feel safe to share thoughts without the concern of being wrong, and students work together to make decisions; *cumulative* where students can build on each other's ideas and can verbalise their thoughts coherently; and *purposeful*, where the talk is guided by a clear educational purpose (Alexander, 2004; Skidmore, 2016; Alexander, 2017; Philipson & Wegerif, 2019).

Fisher (2011) advocates for dialogic learning but cautions that creating the right conditions for this form of dialogue can take time. This is due to the type of talk that tends to take place in the classroom, which is 'disputational', where students only want to state their ideas without listening to others; moving to 'cumulative', where students contribute and build on each other's thoughts, and into 'exploratory' where students work together to form their ideas, can be a more difficult process (Mercer, 1995; Fisher, 2011). Most students revert to disputational talk when they do not feel comfortable offering or accepting constructive criticism or prefer to decide for themselves resulting in short and fragmented turn taking (Wegerif, 2000; Mercer, 1995). Even cumulative talk usually ends in students agreeing quickly on what others say out of simplicity, instead of posing alternate ideas or evaluating the consensus (Wegerif, 2000; Mercer, 1995).

This suggests that for dialogic learning to happen, exploratory talk is the most productive. Howe et al.'s (2007) research concludes that the most educational discussions include students suggesting their own ideas, then considering and clarifying their reasoning with each other (Mercer, 2008b). Exploratory talk "combines features of cumulative talk, being a kind of co-operation, with features of disputational talk, because it includes challenges and competition" (Wegerif, 2000, p. 123), where students are listening attentively, asking questions, building on ideas and everyone contributes (Mercer, 2008b). For Alexander (2020), dialogic learning happens when conversation moves to discussion, then students deliberate together and even debate, engaging in "argumentation" (p. 37).

Alexander (2020) states that "Lev Vygotsky informs the idea of dialogue as thinking together, an essential tool for developing the child's higher mental functions" (p. 43; Vygotsky & Cole, 1978), and Fisher (2011) suggests that dialogic teaching is based on research looking at the important role talk plays in both learning and teaching. The challenge is that this *Thinking Together* approach and exploratory style of talk are not traditional ways of teaching. Fisher (2011) argues that teacher talk is predominantly monologic, not dialogic,

where “the teacher informs the student of certain prescribed forms of knowledge” (p. 91; Bakhtin, 1986). In monologic teaching, the norms of classroom interaction often have teachers asking questions with a specific answer in mind, usually waiting to hear that response and quickly rephrasing to guide students to the decided answer (Ingram and Elliott, 2016), and moreover teachers ask most of the questions, impose meaning on students, and expect students to remember what they are told (Fisher, 2011; Skidmore, 2016). However students can only process new ideas if they are given the chance to discuss and embed this knowledge with others (Newell 2019). This means that teaching dialogically is important for student success. Students need to learn dialogically “not only as a mechanism for thinking about learning as a shared and communal process, but also in terms of providing pupils with the skills of social interaction to successfully operate within the wider world” (Newell, 2019, p. 365). Though this challenges traditional teaching as a knowledge transfer, learning dialogically means students are actively involved in their understanding and learn to communicate in a variety of ways (Freire & Shor, 1987; Skidmore & Murakami, 2016). Specifically in English, all lessons should be based on dialogic learning, where students are encouraged to reflect on ideas, both their own and others’, and to consider what is being taught in the curriculum (Fisher, 2011).

Philipson and Wegerif (2019) explain that engaging in dialogue helps students learn how to respond to each other, how to understand their differences and even how to process their own thoughts. Alexander (2020) summarises this when he states, “of all the tools for educational intervention in students’ development, talk is perhaps the most pervasive in its use and powerful in its possibilities” (p. 15) and Skidmore and Murakami (2016) believe that “before it is anything else, language is a tool for communication” (p.4). Mercer et al. (2017) reiterates Vygotsky’s (1962) belief that “the acquisition of language [is] crucial [for] cognitive development” (p. 51).

To what extent is dialogic learning beneficial to students?

Language and social development

Up until adolescence, brain function is higher than adult levels by 150 per cent, while the connections made in the brain during this time can cause the brain to grow almost four times its size (Alexander, 2020). Jolliffe (2007) reinforces this research by explaining that “learning requires interaction…it requires the skills of communication” (p. 29). According to Alexander (2020), teachers are aware that talking can have an impressive impact on a child’s learning

and development, and that it must be at the heart of their education. In fact, talk is not only important for brain development and learning but Mercer et al. (2017) have also found that, once students leave the school system, they will need to use their spoken language skills far more often than any other skill, including numeracy, in their daily lives. The London Chamber of Commerce funded a report on employability skills which reported that "softer skills, such as team working and communication, are an important aspect of an individual's employability, and they will be in higher demand as we move towards a more knowledge-intensive economy" (Wright, Brinkley, & Clayton, 2010, p. 8). Alexander (2020) reaffirmed that poor oral communication in applicants is a common complaint by both employers and university admission officers.

Despite oracy and talk in the classroom improving literacy skills (and by extension, reading and writing), policy makers, Ofsted inspectors, parents, and even many teachers, still believe that written work is "the only 'real' work" and even if talk is used in support, it does not warrant its own criteria or weight in the curriculum (Alexander 2020, p. 21). With the added pressures to improve test scores and improve school ratings, there is an immense pressure on teachers and school administrators (Mayer, 2012). This is one of the main issues with high stakes testing in the UK: what can be tested is not necessarily what is valuable (Elliott, 2020). Yet this rhetoric of what consists of proper work is perpetuated further by the government. In 2013 Michael Gove, while in the position of UK Secretary of State for Education, "championed knowledge transmission and attacked what he views as progressive educational strategies" (Thompson, 2014, p. 95) stating:

> *All too often, we've seen an over-emphasis on group work – in practice, children chatting to each other – in the belief that is a more productive way to acquire knowledge than attending to an expert. Although, as the great Texan President Lyndon B Johnson said, 'you aren't learning anything when you're talking.'*
>
> *(Gove, 2013, NP*).

It is worth noting that Johnson was originally rejected from teacher's college and when he finally did become a teacher, his career was brief; and Gove has no experience in the teaching profession.

Talk is more than just "chatting to each other" and even more than language acquisition. The act of speaking involves multiple forms of communication, including "gesture, signing, body movement and the use of communication aids as well as vocalisation"

(DfE, 2000, p. 3). When speaking with another, the social act of listening is equally important, and the Department for Education have confirmed that "listening includes attention and auditory memory, group discussion and interaction" (DfE, 2000, p. 3). In fact, based on the research of Pichora-Fuller and Singh (2006), there is evidence that there is short-term with potential long-term impact that not socialising can have on adult cognitive performance, particularly considering the Covid-19 pandemic (Charney et al., 2021). Charney et al. (2021) clarify that this has not yet been extensively confirmed with children, though the adult impact, combined with the EEF research could suggest potential issues. Talk plays an important role in language development, but "social interaction is also essential" (Charney et al., 2021, p. 2). This potential impact is one of the focuses of this practitioner's research, with an aim to improve socialising and listening skills among others.

However, for students to develop, and maintain, this complex compilation of skills necessary for language acquisition and social development, Mercer et al. (2017) argue that oracy in schools needs to be given the same level of attention that is given to literacy. The DfE (2000) explain that for special education needs, speaking and listening are equally as important as reading and writing, because all four skills are scaffolded in special education to help develop their learning, which suggests that scaffolding speaking and listening could be beneficial to all students.

Unfortunately, the EEF (2023) have reported that students from lower socioeconomic homes are likely to be more disadvantaged in developing their language and speech skills in comparison to their peers, which they believe impacts their learning at school and later. Alexander (2020) explains that teachers are aware of this disadvantage and that talk can be used to engage these students and help to close this learning gap, which is also what the 2014-17 research by the EEF has observed. However, the concept of the 'word gap' theory has received critique in recent years, and it has been suggested that there are other areas involved resulting in a deficit discourse (Cushing, 2022).

Nevertheless, earlier research by Barbieri and Light (1992) found that problem solving skills were correlated to the amount of talk that went into "planning, negotiation, and the joint construction of knowledge" and increased academic performance in later related tasks (Mercer, 2008, p. 94). They also found that "guided, structured dialogue" improved performance in Mathematics and Science tests than the classes without this structure, but also on individual tests, showing that students who learned how to use talk collectively also improved their reasoning skills independently (Mercer, 2008, p. 98).

Additionally, Howe's 2021 research (designed to counteract her statement about small sample sizes from 2019) included lessons in Mathematics, Science and Literacy in primary schools with about 72 different classes of students aged 10 to 11; there are around 1700 students who have provided data that confirms that practices in dialogic learning have had positive outcomes for students. When teachers include the combination of elaboration, querying, and student participation in their classroom dialogue, there was a strong performance in the students' SAT results (Howe, 2021). She believes that this combination "created conditions in which students could watch themselves think, and it was this that triggered growth (Howe et al., 2019, p. 495). The most important element was involvement from students and teachers at a high level (Howe et al., 2019), since learning can happen both explicitly and implicitly during conversation and the links between social learning and teaching sophisticated concepts are "mutually supportive processes" (Alexander, 2020, p,15).

Recitation versus interpretation

Though talk is commonplace in the English classroom, even English teachers can struggle with the common practice of recitation instead of fostering interpretation in the classroom, and Alexander (2020) would remind us of an aphorism attributed to George Bernard Shaw: "the biggest single problem in communication is the illusion that it has taken place" (p. 35). Skidmore (2016) clarifies that recitation, led by the teacher, often reinforces them as the holder of knowledge, which inhibits students' abilities to contribute their own ideas to class discussion. Cazden (2001) explains recitation as following the initiation, reply then evaluation questioning process typically used in classrooms for memorising factual knowledge. However, this recitation pattern of talk was "found to be overwhelmingly prevalent, and to have a negative effect on learning" (Skidmore, 2016, p. 99). Recitation in the classroom is a particular challenge for the subject of English and its emphasis on individual interpretation. Rosenblatt clarifies that effective reading is when a reader connects to a text based on their own interpretation of what is written, without the teacher's perspective (Rosenblatt, 2014). However, Ingram at al. (2015) explains that a teacher will often ask a question in a way that suggests there is a correct response. After repeated exposure to this form of teaching, it can be difficult for students "to counter the expectation of there being a singular 'meaning'" (Elliott, 2020, p. 92) and to allow themselves to think of alternate interpretations or ideas in the classroom. In the English classroom this belief in a 'correct response' can be a particular problem (Elliott, 2020); for example, there are several studies that show that for poetry in particular students tend to believe there is a correct

interpretation of the poem 'owned' by the teacher, preventing them from thinking of their own interpretation (McGuinn, 2014; Naylor & Wood, 2012; Rogers, 2015). Newell (2019) has also observed that students often believe "that English, as a subject, is unambiguous: the 'knowledge' of English is not something that can be negotiated freely around a table; English can only be 'done' or 'learnt' in one way" (p. 362).

Disturbingly, recitation practice is strongly correlated with lower set groups (Skidmore, 2016) and "socio-economically related differences in learning outcomes […] can in part be explained by the variation in the quality of interactions experienced by learners in the classrooms" (Harris & Williams, 2012, p. 393). Skidmore (2016) explains that the differences between recitation and dialogic teaching are authentic questioning, with no clear or expected answer, building on student responses into new questions, and allowing students' answers to guide the conversation. However, as Harris and Williams (2012) have already highlighted, this is not common in every class and often varies based on perceived achievement level.

Language use is linked to higher brain function "but also structures it, and speech shapes the higher mental processes necessary for so much of the learning which takes place, or ought to take place, in school" (Alexander, 2020, p. 15). Alexander (2020) advocates for more interactive lessons and opportunities for students to develop these processes. After all, as Elliott (2020) explains, interpretation and creativity are "part of the joy of English" (p. 92) and dialogic learning can help students discover or rediscover that joy.

The importance of oral discussion in the English classroom

Mayer (2012) argues that it is important for students to feel their ideas are valued in the classroom, even when they are different from the teacher or their peers. Thompson (2012) explains that student development should include dialogue, not only between them and the teacher, but also between peers, specifically those at different levels, removing the hierarchy in learning. This creates an environment where students can be both teacher and learner (Miller, 2012), allowing them to be the knowledgeable one but also build on that knowledge. Peer discussion improves more than academic understanding: Charney et al. (2021) clarifies that students develop their conversation and turn-taking skills, along with implied meanings, in discussions. As English teachers, we need to understand how to group students to create not only a supportive learning environment, but one that also stretches students (Thompson, 2012).

Mercer (2008) admits that there is limited research supporting educational outcomes or conceptual change when it comes to dialogue between teacher and student, but Anderson et al. (1998) explains that reading comprehension can be improved through teacher-led collaborative reasoning, specifically for written arguments in secondary students. Collaborative reasoning is discussion based, where students explain their thinking, propose new ideas and challenge arguments, "and they display higher levels of thinking than in conventional classroom discussion" (Mercer, 2008, p. 93). This supports Jolliffe (2007) and Skidmore's (2016) research about the importance of learning through talk and an example of how student discourse could be fostered in the English classroom.

Furthermore, reluctant writers are less able to make progress unless they can discuss their work, are challenged to form ideas, and learn to problem solve though this sort of social activity (Thompson, 2012). Thompson (2012) further clarifies that creating shared texts through collaboration and discussion can help reluctant learners develop the ability to write and think for themselves. The collaborative learning process has long been known to improve not only educational improvement but also motivation and self-esteem (Slavin, 1980; Mercer, 2008). Dialogue can also "promote deeper conceptual understandings" as students listen to multiple and possibly different ideas "in a caring, collaborative, critical and creative manner" (Philipson & Wegerif, 2019, p. 32). This is accomplished in the English classroom through students learning how to listen through dialogic learning and therefore learning how to understand and appreciate differing perspectives (Philipson & Wegerif, 2019). Alexander (2020) confirms that this form of interaction is vital for children to develop their own identity and self-worth in addition to learning the knowledge offered in schools.

Fisher (2011) states that, though traditional interactions of teacher to student are necessary in education, it is not necessarily adequate for maximum learning. He believes that it puts a cap on learning potential, where the dialogic approach helps to develop students thinking and oracy (Fisher, 2011). Philipson and Wegerif (2019) clarify that whether it is between peers or between the teacher and student, dialogue "provides the social plane on which conceptual understanding can be developed" (p. 35). The most important part of learning through dialogue is not just the frequency of exchanges in the classroom but whether students are active in their own learning (Skidmore, 2016). Unfortunately, "too often, these core learning processes are not harnessed to support academic learning in schools" (Rittle-Johnson et al., 2020, p. 61).

For teachers of English, discussion in literature is key to students forming "self-conscious reflection" (Miller, 2012, p. 290) and open-forum discussions can provide

numerous opportunities for students to engage in differing perspectives and interpretations (Miller, 2012). Thompson (2014) explains that English should be focused on helping students know how to learn and act in the world. It is through discussion that students are better able to integrate prior knowledge into their own ideas, especially with peer and teacher support (Lampert, 1990; Stein et al., 2008; Webb et al., 2014; Rittle-Johnson et al., 2020) and teachers have a responsibility to be mediators in this learning (Thompson, 2014). Wegerif (2000) explains that there is a clear connection between the way that children use language when thinking and learning together and how they problem solve when working alone, showing that reasoning skills are developed through first using the strategies used when discussing in groups then applying those strategies on their own. It is important for teachers to actively teach these skills, not only for educational gains, but to better help students realise their goals (Fisher, 2011).

Knowing all the benefits of speech in the school system, it is worth recognising the possible setback of language development in the English classroom due to the Covid-19 pandemic. Though more studies are needed to explore the impact on language and speech development in children, it is worth ensuring that children are provided with an optimal environment for learning how to communicate through dialogue (Charney et al., 2021). Recently, the EEF has published "approaches that focus on speaking, listening and a combination of the two all show positive impacts on attainment" (EEF, 2023, NP) suggesting that oral language interventions could be the key to undoing any missed opportunities during the pandemic. They confirm that oral interventions of at least three times a week have had great success and include approaches used in metacognition and collaborative learning which ensure that talk is explicit and group interactions are utilised in the classroom (EEF, 2023). These interventions are based on understanding that reading skills and comprehension come from dialogue in the class (EEF, 2023). The EEF (2023) also provide ideas for how this can be done in the classroom: students can be encouraged to read aloud and discuss the books they are reading; teachers can use questioning to help model their inference skills; students can be put into groups or pairs to create more opportunities for discussion; explicit and implicit thinking tasks to help expand student understanding.

With all this research, the proven benefits to social emotional learning, improved reasoning and problem-solving skills, and increased confidence and self-worth, Jolliffe (2007) asks an important question: "if talk supports learning why has pedagogy not altered as a result" (p. 31)?

Challenges

In addition to the negative representation in the media perpetuated by Gove, there are also difficulties in understanding the concept of dialogic practice in schools. Alexander (2020) highlights why there is some difficulty in comprehension. He explains that Kim and Wilkinson have noted that "the idea of dialogic teaching has been variously interpreted" (p. 2) which could be adding to the confusion, while Park et al. (2017) explain that there are no agreed definitions to characterise this style of teaching (Alexander, 2020). Without a shared understanding, it can be difficult for teachers and schools to agree on how it should be implemented and what it should look like in the classroom. Alexander (2020) continues by explaining that even advocates of dialogic learning (Wegerif, Mercer and Major) have reduced this concept to two overly simplistic categories of the epistemological and ontological, thereby ignoring the important aspects of dialogic learning like relationships, ethics and learning styles.

However, teachers who are persuaded by the research can still struggle to implement dialogic learning and teaching into their daily pedagogy for several reasons. Thompson (2014) explains that "teaching has been dominated by the introduction and implementation of government national strategies" (p. 3) making it difficult in many schools to have autonomy over the curriculum. Due to the imposing government pressure to improve results, teachers tend to discourage students from elaborating on their responses or from allowing those responses to introduce a new idea (Skidmore, 2000), preventing students from having ownership over their learning or feeling that their ideas are valued in a school setting. This can also be due to the poor ratio of teachers to students making classes quite large (Harris and Williams, 2012) and difficult to facilitate conversation. Jolliffe (2007) offers several reasons why adjusting pedagogy can be difficult: the competitive and individualistic focus on students in schools; the presumption that communicating means simply transferring knowledge; how talk has traditionally been controlled by the teacher, instead of facilitated; and the oracy push in schools suggesting that talk must be happening anyway, as a result of which teachers do not plan for dialogue.

For English teachers, Thompson (2014) explains that the challenge is in creating tasks that allow for learning to happen through interaction and communication. Yet, even with support, it was noted that "some teachers were not comfortable leading discussions, providing little time for students to generate explanations in response to open-ended questions and to build on each other's ideas" (Star et al., 2015, p. 61; Rittle-Johnson et al., 2020). Even considering smaller aspects of interaction in the classroom is not sufficient. Harris and

Williams (2012) found that the complexity of interactions in the classroom means that only focusing on a few areas at a time runs the risk of having no impact. This suggests that group work is important, and Howe et al. (2019) confirm that test scores for reasoning skills improved when students worked in groups, but there is no support for similar results when teachers are involved in the group work. Yet Thompson (2014) cautions that if the group work is not designed to focus on purposeful talk, then it will also not be productive. With all this complexity, it is no wonder that teachers could find implementing dialogic strategies into their teaching difficult.

What are some useful practices for dialogic learning in the classroom?

Teacher-Student learning

Thompson (2014) confirms that students "learn through mediated activity" (p. 7), yet secondary school teachers do not always make use of the learning potentiality of talk in the classroom (Fisher, 2011). Teachers need to know how to mediate learning through talk and how, then, to develop talk into dialogic learning. Jolliffe (2007) explains that effective talk first needs to be taught, and students supported in the development of their communication skills, then they need the opportunities to use those skills. Mercer (2008) supports this and adds that teaching students how to use talk in a variety of situations, not only helps their academic growth, but also contributes to helping their reasoning skills and self-regulation.

To do this, teachers can start by modelling thinking practices, like speculation and using supporting evidence for their ideas, to help their students understand how to participate in discussions (Jewell & Pratt, 1999; Skidmore, 2000). At the moment, most dialogue that occurs in the classroom involves the teacher, either between them and the whole class, in small groups or students individually (Howe et al., 2019), but there are several other options available to teachers: treating students like group members who work together as a class, acting as a neutral facilitator in a discussion, or letting the class discuss with very little intervention (Corden, 1992; Skidmore, 2000).

These options were explored in a large research project and an intervention planned to help inform the benefits of the different forms of talk in the classroom (Mercer, 2008). The project involved over 700 students in the UK between the ages of 6 and 13 with additional studies in other countries (Wegerif, Mercer, & Dawes, 1999; Mercer, Dawes, Wegerif, & Sams, 2004; Mercer, 2008). The hypothesis was that better results would be achieved by teachers who scaffolded their talk and used it to help students, looking specifically at

questioning, how teachers offered instructions, and how much they encouraged talk from their students (Mercer, 2008). Participating teachers were given training in "reciprocal teaching, collaborative reasoning, and dialogic teaching" (Mercer, 2008, p.95). One of the first steps was to create a list of 'ground rules' with the class on how people should behave during these discussions to ensure positive qualities of reasonable debate (Mercer, 2008). Philipson and Wegerif (2019) noted that if students personalised and embodied the ground rules, then they would be more able to transfer their dialogic skills to situations outside the classroom. Another key step was for teachers to continue to guide classroom dialogue but instead of recall questioning, engage in open-ended questioning; importantly, teachers were trained to avoid suggesting to the class whether they thought the answers were right or wrong, and instead to allow the talk to continue (Mercer, 2008). This use of ground-rules and open-ended questions without answers were included in this practitioner's methodology.

Additional Teaching considerations

Teachers need to consider the "implicit rules that structure interactions" (Ingram & Elliott, 2016, p. 38) and what Ingram and Elliott (2016) believe is the most important characteristic of classroom discourse, is that interaction is not traditional, but students play the role of both teacher and student towards a common learning goal (Goodwin & Heritage, 1990), with one of the most important interactions being turn-taking (Drew, 2005; Ingram & Elliott, 2016).

For teachers, turn-taking is normally controlled by them or a selected student; however, when guiding a discussion, teachers should allow pauses that are longer after posing a question or when after a student has spoken to allow for self-selected turn-taking (Ingram & Elliott 2016). The challenge is that most teachers tend to leave less than a second between asking a question "before repeating or rephrasing, or giving their own answer (Rowe, 1972; Ingram & Elliott, 2016, p. 37) but extending the time to around three seconds can have much more positive results (Ingram & Elliott, 2016).

To create an atmosphere conducive to dialogic learning, the handling of errors also needs to be considered. Ingram et al.'s (2015) research in mathematics show that the way a teacher responds to a student making a mistake can have potential consequences. It is important to avoid a negative response and instead of the teacher correcting the student, for the error to be used as a learning opportunity (Ingram et al., 2015) potentially through intervention by other students. Research has shown that students are concerned with feeling embarrassment and even fear in making a mistake in the classroom (Bray, 2011; Movshovitz-Hadar, 1993; Ingram et al 2015), however, this embarrassment can be associated with the

climate created by the teacher in how they treat mistakes when they occur (Steuer, Rosentritt-Brunn, & Dresel, 2013; Ingram et al., 2015) showing the importance of creating a safe and open environment to learning and error making in the classroom. In fact, making mistakes is important, not only for the student, but the rest of the class. Ingram et al. (2015) explain that "errors that result from misconceptions make sense to learners since they develop out of learners' other knowledge" (p. 184) suggesting that teachers need to teach and model for students how the error can be used as a step to the correct answer.

Arguably, one of the key areas of teaching is the use of questioning, however, it appears that "the educational system does not give question asking due significance" (Eshach et al., 2013, p.73). Eshach et al. (2013) argues that there has yet to be a study that looks at both teacher attitudes to questioning and classroom instruction to see how the two relate but believes both to be of equal importance. Chin (2007) states that questions should be "used to diagnose and extend students' ideas and scaffold students' thinking" (p. 818), and that teachers should be trying to understand how students think through encouraging elaboration and helping to build their thinking conceptually (Chin, 2007; Eshach et al., 2013). The issue is that, though questioning in students rises until junior school, it falls rapidly during high school or secondary (Good et al., 1987; Eshach et al., 2013). This could be due to teachers at the junior or middle school levels, struggling to manage questions from students, who seek the correct answer instead of building their conceptual learning, and this was seen in teachers of all backgrounds and experience levels (Furtak, 2006; Eshach et al., 2013). Indeed, when teachers were asked about their questioning strategies, no one interviewed included the possibility of leaving questions open without an answer but believe that the point of questions is for them to be answered and done so correctly (Eshach et al., 2013). It is also interesting to note that, teachers who attended professional development sessions on questioning understood the importance of developing their students' abilities to ask good questions, but did not seek to improve their own, believing those skills to already be adequate (Eshach et al., 2013).

English teachers in particular need a balance in their questioning. Factual recall with closed questions can be just as important for student learning (Edwards & Mercer, 1987; Harris & Williams, 2012) as open questions. Skidmore (2016) argues that lecturing can even be an effective style of teaching and "the inappropriate use of authentic questions can be counterproductive" (Skidmore, 2016, p. 100). In fact, some open questions can have "weak framing" (Berstein, 1997, 375; Harris &Williams, 2012) making it more difficult for students to learn from. Teachers need to know when to use factual recall, when to use effective open

questions, and more importantly, when students should be asking their own questions. Eshach et al. (2013) found that "students asked less than half of the amount of questions asked by their teachers—an average of only 10" (p. 74) and of those 86 % were considered low-level or closed questions (Chin, 2001). This presents an issue, as Jolliffe (2007) explains: "learners need to be active in formulating their own questions and developing their own strategies for problem-solving" (p. 30), suggesting that perhaps teacher-student interactions should not be the only questioning and dialogues happening in the classroom.

Group work

Jolliffe (2007) believes that "learning is a social and collaborative activity where pupils co-construct knowledge (p. 30) and Mercer (2008) explains that research has helped clarify the link between speech and development of thinking skills. The UK policy has often supported students working in groups but, even if seated together, students rarely work collaboratively or dialogically on their work (Howe et al, 2019). However, Skidmore's (2016) research has shown that, when students do work together, it is most effective when students genuinely collaborate on clearly specified goals, and students have autonomy in how they complete the task. Howe et al. (2019) further explains that performance on reasoning tests improves when students use dialogic discussion in groups. Mercer (2008) highlights that "the expression of contrasting opinions during group work was the single most important predictor of learning gain" (p. 94), suggesting that students learn to use language better and their thinking becomes dialogic in the process of group work. In fact, the most effective group work happens when the teacher leaves students to work through the tasks without intervening (Howe et al., 2007; Mercer 2008), allowing knowledge to be co-constructed where students agree, disagree, and build on their discussion (Skidmore, 2016). Scaffolding and modelling of this structure plays an integral part to the research in this methodology.

It is worth noting that "the positive effects of group work are often delayed" (Howe, Tolmie, & Rodgers, 1992; Mercer, 2008, p. 94) and it can be difficult for teachers to not intervene when they see students struggling in a group setting. However, Howe et al. (2019) explains that struggling in dialogue is important and it is through struggle that students develop a stronger understanding. When students have a clear goal and dialogue has been properly modelled and taught, then students are more able to connect what they learn in schools to what they need to learn on their own (Skidmore & Murakami, 2016). It may even encourage students to take risks in their thinking and learn to be accountable for their thinking (Skidmore, 2000).

Final considerations

The research in this section shows that learning does not happen simply though classroom interaction taking place (Ingram et al., 2015), "teachers need to ensure […] that students engage in effective dialogue and other kinds of talk if speaking and listening is to promote learning in the classroom" (Fisher, 2011, p. 92). Teachers need to create schemes of work that draw on common concepts and previous knowledge to help students understand new concepts like how to analyse (Thompson, 2014) and they need to include reflection in these lessons to help students explicitly state what they understand and know (Jolliffe, 2007). Talk in the classroom is essential in student learning, and in helping them to engage with and develop their own understanding (Harris & Williams, 2012).

Considering the above literature and research suggestions, my research questions are as follows:

What does talk look like in Year 8 secondary classrooms?

Is there an effect on classroom environment of encouraging dialogic learning?

What is the impact of dialogic learning on students at an individual level?

Methodology

Overview of research

In order to answer my research questions, I started by taking sample recordings of paired talk in my year 8 lessons in January as a baseline. Students also completed a questionnaire on their thoughts about school and talk in the classroom. I taught the three lessons from Neil Mercer's (2008b) *Thinking Together* resources, with some adjustments to the third lesson to better suit the poetry unit I would be teaching in leu of the mathematics focus of the original lesson. As part of these lessons, both classes developed their *talk rules* (Appendix 6: Talk Rules) for the classroom, we continued the poetry unit until the end of the half term. Throughout this, and the following unit from March to April on crime writing, audio recordings were taken at two-week intervals, students were reminded of the *talk rules* they had chosen, and they were given time at the end of lesson to reflect on their speaking and listening skills and set targets for next lesson.

My aims were to introduce a dialogic approach to learning and observe any potential impact of this approach on a whole class and individual student level. The data collected was predominantly qualitative due to the subjective nature of talk and the coding required to interpret oral recordings and field notes. The purpose of collecting questionnaires was to compare student perceptions before and after the intervention, where qualitative analysis was used for short answer questions and quantitative used for numerically rated questions.

Practitioner Research

I collaborated with the Head Teacher on the general focus of talk in the secondary classroom for this research, and the Lead Practitioner for English on the best focus for this intervention, and based on the school context, we decided the focus would be on talk in pairs. The process of this practitioner research was influenced by Pichora-Fuller and Singh (2006) who explained the potential impact of Covid on learning; Wegerif (2000) who explained how the language used when children think and learn together can be linked to problem-solving on their own; Mercer's (2008) ground-rules for talk and focus on open-ended questions without answers; and Skidmore (2016) who argued that teachers need to allow co-constructed knowledge where students agree, disagree and build on discussion without teacher influence. This research was also informed by Mercer's (2008b) *Thinking Together* resources and Elliott's (2020) insights into the importance of student interpretation without the authority of teacher exposition. I also used the resource *Talk Detectives* on the advice of Daniel Thomas from School 21 (Voice 21, 2020). After students work through the *Thinking Together* resources, one student would be chosen to be the 'detective' looking for good examples of paired work and tracking the names of students who were working well together. Detectives were used every second or third lesson in a sequence to ensure consistency and normality in lessons.

Participants

The students selected for the practitioner research were my two year 8 classes, totalling 54 students, because they are the classes I teach consistently and do not share with another teacher. Due to the age group, the students' parents and guardians needed to opt-in to the recording aspect of my interventions, and I was more likely to have a wider selection of

recordings available for analysis if I opened my research to both groups. Choosing my own classes allowed me to easily gather data and ensure consistency in the application of Neil Mercer's *Thinking Together* resources, regularity in the intervention over the two units and in the notes taken on student interactions during this intervention.

The participants were a combination of males and females ages 12-13, some pupil premium and special additional needs, from two mixed-ability classes which included a range of under-achieving, on target and higher-achieving students. Students were put into mixed-ability pairs and there was an attempt to divide friendship groups. The recordings were based on the same lessons for both classes with recorders focusing on 6-8 students in each class based on permission given from parents, with some changes in focus-students between the two units. To maintain anonymity for the students who were opted-in, each transcript will replace names with student 1, 2 or 3, and there will be no identification for either class. Students were provided with an explanation of what the recordings were for and how they would be used and even though parents opted-in, students were still given the option to opt-out of a recording. Focusing on 6-8 students in each class helped for focused, in-depth data analysis and highlighted any improvements or decreased involvement from students.

Data and Analysis

Data collection

My methods for data collection are a pre- and post-intervention questionnaire which have the same set of questions except for the final question added to the post-questionnaire: "*My thoughts on class talk have or have not changed because…*" (the questionnaire can be found in Appendix 2: Pre and Post Intervention Questionnaire); audio recordings; and teacher observation notes. This multiple-methods approach allowed for triangulation by having data collection points at different times throughout the intervention and with different pupils. A multiple-methods approach was used as, according to Smith (2006), "any methodology has inherent deficiencies and fails to capture the chaos, complexity and contextuality of applied fields such as education" (p. 458). Additionally, different methods addressed different research questions:

Research questions	*Questionnaire*	*Audio recordings*	*Field Notes*
What does talk look like in Year 8 secondary classrooms?		*X*	*X*

Is there an effect on classroom environment of encouraging dialogic learning?	*X*	*X*	*X*
What is the impact of dialogic learning on students at an individual level?	*X*		

Research was conducted over two half-term units and became standard classroom practice. This would help mitigate against changes in normal classroom behaviour when teachers were taking observational notes or when students had an audio recorder placed in front of them.

Questionnaires

I collaborated on my questionnaire with the teachers in my department, to help clarify what I would be looking for from my students and to receive any feedback they may have based on their own professional experience. The pre-intervention questionnaire was given at the start of the January half-term and the post-intervention questionnaire was given just after the Easter break. This was due to timing and assessment deadlines that prevented an earlier chance to set the post-questionnaire.

A combination of closed and open questions was used in the questionnaires with all the closed questions marked as mandatory. Closed questions are focused and easier for students to answer, they also reduce the potential for a biased interpretation in coding and analysis by the researcher as suggested by Cohen et al. (2018). Each closed question was multiple-choice including the range: strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. This use of the Likert scale offered a "greater subtlety of response" (Cohen et al., 2018, p. 480) and meant that frequencies of response could be quickly aggregated. Some closed questions were drawn from the Royal Shakespeare Company questionnaire about learning in English and Drama (Galloway and Strand, 2010) to help gather data on pupil perspectives and confidence levels. The same scale was used for all questions to allow for consistency and speed for completion.

Open-ended questions were used to help clarify or expand (Cohen et al., 2018) on the previous closed question or questions. The open questions were not mandatory which allowed students to complete the questionnaire even if they did not want to write out answers.

Though they did provide the opportunity for those who wanted to expand or clarify their responses in more detail. This follows Bryman's (2012) reasoning for open questions.

The questionnaires were distributed via Microsoft Forms and a link placed in their class Teams group. Pupils are familiar with Forms and Teams, both of which are used across the school. My classes were aware of the intervention and the purpose of the questionnaires. The average time to complete them was 4-7 minutes, suggesting there was very little infringement on time and therefore little chance of any ethical damage to the pupils. Additionally, completion was voluntary: all but one student, due to illness, completed the pre-intervention questionnaire, and all but seven completed the post-intervention questionnaire through a combination of illness and opt-out.

Recordings

Audio recordings were a key source of data collection. They were chosen as, first-hand experiences tend to have the "potential to yield more valid or authentic data", and to highlight that what some people say and do may be different from what they originally think (Cohen et al., 2018, p. 542). Four Dictaphones were used at different places in the room and recorded lessons every two weeks for eight weeks. To ensure triangulation, these were used alongside the questionnaires and field notes as the source for original data as well as directly answer my first two research questions.

There was an effort to have parity between focus pairs. Recordings had a general balance between male and female students, pupil premium and special educational needs, and on practical level having 6-8 students per class was good focus for in-depth analysis. This also accounted for any students who chose to opt-out of a recorded lesson.

Field notes

Field notes were vital for understanding what talk looks like in the classroom and for observing how dialogic learning may impact the learning environment. According to Cohen et al. (2018), there is a unique challenge to being a *participant as observer* in educational research, and the observer would need a "sensitivity to nuances of behaviour and response in the participants" (p. 310). Knowledge of these students and teacher experience helped to focus my field note observations, but to ensure reliability of data, I also collaborated with other teachers who acted as external observers. At three points throughout the intervention, one of these teachers would observe a lesson. Their role was to note how students interacted

with each other and take a factual account of what they were seeing and hearing. These were then explained to me after the lesson where I could then put the observations into context.

Analysis

The original data of dialogue transcripts can be used to fill a gap in current research looking at secondary pupils and as a foundation for new research for secondary teachers. However, paired discussions can be difficult to quantify, relying on coding to narrow the focus of the data analysis. The coding is based on terminology explored in the literature review and inductive coding coming from the data and teacher experience.

Classroom audio recordings were transcribed then coded by hand (a coded legend can be found in Appendix 3: Coding Legend, and a coded sample can be found in Appendix 4: Coded Sample). After coding the transcripts, the level of disputational, cumulative and exploratory talk was looked at first. These codes were then compared with the levels of elaboration, questioning, turn-taking, and student participation. The handling of errors was looked at separately at first, then compared with the quality of talk. Student names were replaced by numbers and a dash put in after speech when a student was interrupted, and a dash at the beginning of speech when they were interrupting. An ellipsis was added when it sounded like a student trailed off and did not complete their thought. Field notes were cross-checked with the extracts found through coding. The short answers to the questionnaires were corrected for spellings, making the comments easier to read, and compared for any similarities or differences between pre- and post-intervention, then numerical averages given to each question using the Likert scale.

General Data Protection Regulation (GDPR)

The use of Microsoft Forms is in line with the school IT policy, GDPR requirements and subject to the security protocols used throughout the school, and the forms are password protected. They are also safeguard protected following the Staff Code of Conduct and school Appropriate uses of IT policy. Questionnaire completion was taken as informed consent and the data from the questionnaires is anonymous ensuring confidentiality of all participants. Original recordings were not in public domain and not available for public use and were destroyed shortly after the completion of the intervention leaving only the anonymous transcriptions for analysis.

Ethical Considerations

Before any interventions, Curec 1A was completed and permission requested from the University of Oxford Research Ethics Committee. Procedure 25 of the Code of Ethics was also adhered to as participants are under the age of consent. The Research Integrity: Introductory Core Course certificate can be found in Appendix 1: Ethics Certificate. It was important to ensure objectivity during this research as, according to Menter (2011), teacher researchers can be affected by external or social motivations. This is why, in addition to strict confidentiality of recordings, only anonymised transcripts were coded and analysed, and external observers assisted with field notes.

Additionally, approval was sought from the Head Teacher with clear guidelines on the nature of the research. Letters and information were also sent to all parents of both Year 8 classes, and only students of parents who opted-in to the research were recorded. Even with parental consent, students could still opt-out of being recorded in the lesson. Teaching strategies were applied in role as classroom teacher and based on evidence of the benefits. Being a research-oriented school, any adjustments to pedagogy were supported by the Head Teacher.

It was important to ensure that, students felt they were "treated fairly, sensitively, with dignity and within an ethic of respect and freedom from prejudice" (BERA, 2011, p.5) and that students did not feel pressure to participate due to my position of authority. It is possible that some pupils felt there was a power consideration; that they were not able to say no to their teacher recording lessons. However, some students chose to turn off the recorders or asked not to be recorded and this decision was respected.

Limitations

The questionnaires were offered in English lessons at the start of the class. Students were given the option to complete the questionnaire or a different starter task for the lesson, allowing for students to opt-out of the questionnaire if they chose. Asking for student perceptions can also be a challenge for analysis, as students may know what they like and think they prefer but don't always reflect on change or know what is in their best interest.

The audio recordings were taken on different devices depending on what the school had available; there was inconsistency in the quality of recordings based on the device used. Though the focus was on pairs, recording quality made it difficult to hear full conversations

and differentiate between target pairing and surrounding pairs. Close discourse analysis is time consuming and not all recorded data could be analysed in the same level of depth. Though fieldnotes helped to narrow the choices for transcript analysis, it is also heavily influenced by what I notice as a teacher and the norms of my classroom. Students also took time to adjust to having audio recorders on the table. Some spoke more quietly than normal while others picked up the recorders and spoke into them like they were hosting a radio show.

Additionally, as my students required written parental consent, not all households chose to opt-in. Most of the houses who opted for taking part in the recordings are from middle to higher socio-economic backgrounds. This suggests that not all student backgrounds are equally represented. This is a small-scale study with a limited sample size. However, the nature of this kind of qualitative practitioner research can show insight into teacher practice, and transferability or generalisation of data, along with analysis and collection of original data was the primary aim of this study.

Collaboration

Collaboration for this research was dominant at the beginning of the project. The decision to focus on paired-talk as an intervention matches the whole school priorities as set by senior leadership and a discussion with my Head of Department about the department priorities for this year. I was given permission to change some of the lessons to be more discussion focused and to start the unit with the *Thinking Together* lessons. I also had several discussions with my colleagues from my previous school to help narrow the focus of the intervention and research based on my previous project looking at creating an environment for dialogic learning in the classroom.

I emailed Neil Mercer to explain my interest in his research and he generously replied with recommended resources and further research ideas. I also had conversations in person and via email with Shelby Hawksworth who completed her MLT the year before with a focus on Oracy. She recommended some useful resources on oracy from her thesis. Also, prior to starting my intervention, I was able to visit School 21 and meet with Senior Leader and Head of Oracy Daniel Thomas. I observed a year 10 talk lesson based on the lessons and resources mentioned earlier in the literature review, was able to ask questions about how best to use *Talk Detectives* (Appendix 5: Talk Detectives) and how to teach speaking and listening. He

also provided resources to help guide my own learning along with phrases to help my students.

Prior to starting my intervention, an email and further information went out to all parents of my year 8 classes informing them of the research and asking for permission to record. In addition to the consent form, I also received positive emails from parents expressing their interest in my research. I have also been in contact with several of my peers on the MLT course to check on progress and help with motivation.

Now that the research has been complete, teacher collaboration enabled a clear and smooth process to this intervention and was vital to the identification of improved discourse through analysis. The findings will be shared with my Head Teacher and Head of Department both in written and verbal form. I will present my findings, key resources, and teaching strategies at a professional development session for my department and there is also potential for the findings to be shared at a whole school professional development session.

Findings

What does talk look like in Year 8 secondary classrooms?

The variety of samples from the first recording showed a range of discourse; though there was some collaborative reasoning, there were also examples of either poor or no dialogic communication. An example of poor discourse and handling of errors can be seen in this excerpt about the first poem students were discussing in the unit; they were asked to discuss the impact of rhyme.

Student 1: What are you doing, oh my god!
Student 2: It doesn't even rhyme.
Student 1: I'm right, you're wrong.
Student 2: I don't think -
Student 1: [Student 3] doesn't it rhyme? She says it doesn't rhyme.
Student 2: That's one thing that's sort of rhyme -
Student 1: It's still wrong, she's like oh there's no rhyme -
Student 2: There is some rhyme -
Student 1: No more, it doesn't even rhyme, I'm trying to prove that it does rhyme.

There is a lot of overlapping talk as seen by the dashes and each student is trying to speak over their partner to be heard and to prove their point. This was not the main pair that were originally being recorded, but this interaction was tracked in my field notes and their discourse was so loud that it was picked up as the primary conversation on the recorder. Student 1 is trying to prove Student 2 wrong by bringing in another student to confirm. Student 1 does not point out any rhyme, nor do they discuss why they might think differently from their partner; instead, it is more important that Student 1 highlight their partner's mistakes. When Student 2 says, "That's one thing that's sort of rhyme -" their attempt to engage Student 1 is rejected by their response "It's still wrong". Student 1 is not looking at the line that Student 2 is pointing to but is instead focused on getting the attention of Student 3 who is across the room.

This handling of errors creates a negative working environment and destroys any trust in this pairing. Student 2 is reluctant to attempt dialogue again, and after I explained to Student 1 that their response was the opposite of what we have been learning for the previous three lessons, they then struggled to engage Student 2 in any form of communication. It is particularly interesting to see that Student 1, when questioned, could not explain their thoughts on rhyme, merely that, given there was a question on rhyme, it must be present in the poem.

Despite this example, there were other groups that were more successful in their first discussions. There was consistent turn-taking, and even a few moments of elaboration and cumulative talk.

Student1: "I make your bed, I bake your bread", they like, they do these things more often and then it's obvious that like, I do this myself.
Student 2: Because she's a servant, because she's a poor girl serving a rich man so… I don't entirely know what all these lines mean… I think she -
Student 1: Starts rebelling and like she leaves the house eventually.
Student 2: Yeah.
Student 1: And then, should I look at "treated badly"?
Student 2: Yeah, well I agree with that I guess, anymore ideas or…
Student 1: I agree with our ideas, she's a servant -
Student 2: I agree with you because she's a servant and that she's rebelling a bit more -

Student 1: I think she has fed up and then she rebels against the rich person who owns the house and she most likely… it feels suffocated and like at the end when she like, links her words -
Student 2: Yeah. 'Identify poetic features found in the poem'…
Student 1: "Great" and "plate" is, I don't know what that's called…
Student 2: Rhyming.
Student 1: Yeah.
Student 2: And then, same with "bread" and "bed" but this part doesn't rhyme…
Student 1: This last paragraph isn't really rhyming or…
Student 2: "More", "bore" -
Student 1: Well "bore" and "more" is one.
Student 2: But like the rest isn't really…

This pair are contributing equally to their understanding of this poem. There are some attempts at elaboration when Student 2 starts "Because she's a servant" and again later when Student 1 explains "I think she has fed up". There is a moment of collaborative reasoning when they decide that the poem's voice is a servant, and the next part of their discourse is cumulative. Here, students are starting to build on each other's ideas and work together to help their understanding. Student participation is generally equal as seen through the utterance lengths, where very few turns have less than six or more words. The final part of this excerpt shows a more collaborative experience with errors. Student 1 says, "This last paragraph isn't really rhyming or…" followed by Student 2 replying "'more", "bore'". They do not yell like in the previous example, nor do they try to highlight this oversight in rhyme to neighbouring students, but provide an example to help their partner see the rhyme. The rest of the discourse remains amiable, and this pair then move on to another question. The *Thinking Together* resources have helped this pair learn how to communicate and their first attempt at collaborative work started well.

Despite this positive start, later in the lesson utterance lengths for this pairing start to vary more and there is more evidence of disputational talk.

Student 2: There are also words that don't rhyme.
Student 1: Yeah.
Student 2: Is this a simile?
Student 1: I agree with you on that.

Student 2: There's "you", "you", "I", "I" and "and", "that", "you", "and", "and", "but", "you", "I"… actually I don't think that is anything.
Student 1: Haha, yeah.
Student 2: Okay, I don't know what it's called but like, it's with the rhyming but it's the same like, the last bit of the first word and the start of the second word like, they're the same sound.
Student 1: But, what do you mean, can you explain it to me?
Student 2: I don't think it's here in this poem.
Student 1: Can you like, give me an example?
Student 2: I don't know which sentences I just I know it's a thing.
Student 1: It sounds like it could be a thing. So, okay there's also, there's like, where there's the dots in this space, isn't dots in the space…most of these are just sentences.

There is still clear evidence of students using the language they have been practising with "I agree with you on that", but they are not discussing possible poetic techniques (which is what they are looking for), instead they are randomly selecting words hoping that a technique will come to mind. When they agree that a simile is in the poem, they do not discuss its purpose or meaning, but move on to find more poetic techniques. This is also one of the few examples with questioning. However, "Is this a simile" is a simple 'yes' or 'no' question and "Can you like, give me an example?" is met with avoidance.

Field notes showed consistency with students avoiding asking any open questions or asking their partners to help them remember poetic techniques before beginning the task. Instead, students around the room are more likely to raise their hand and ask me if something is a poetic technique, or to list techniques for them, instead of asking their partner or trying to recall with their partner before asking for extra help. Though this was an improvement from students avoiding the work entirely, it is not dialogic discourse.

However, after two weeks of consistent focus on the talk rules, reflection on progress and individual talk targets, students start to elaborate more and move towards exploratory talk.

Student 1: The boat one.
Student 2: It's like alone.
Student 1: She's like alone in a bedroom or looking out of the bedroom over the ocean.
Student 2: Yeah.
Student 1: And she like, put out a candle and then went off alone.

Student 2: And she walked through that field and saw the birds and then picked up a flower.
Student 1: Or, like, she might be escaping something that like could have been horrible or like umm, somebody was like running away, like the dead one.
Student 2: We can make it a story of like she's running away.
Student 1: Like the boat, once you could have escaped something that was horrible.
Student 2: Yeah.

Here the turn-taking is patient, and they are listening carefully to the other to build on their response. There is equal student participation, and they are both elaborating on their ideas, and they show some collaborative reasoning when they start to build a story off their agreed image. Their interpretations of the boat image (projected among others on the board) show some exploratory talk when they are openly sharing ideas about what the image could represent, particularly when Student 1 suggests "Or, like, she might be escaping something that like could have been horrible…", which shows willingness to share ideas without worry of rejection. This was a particularly useful task for students to practise these skills, as building from cumulative to exploratory discourse could be seen to be easier with a creative task than an analytical one, which tends to have a 'correct' answer.

This growth from elaboration towards exploratory talk is seen in other groups during the same week.

Student 1: The smoke chokes your eyes.
Student 2: Yeah, yeah.
Student 1: It blackens your heart.
Student 2: The flower, maybe it dies.
Student 1: Like the flower when it dies is it petals.
Student 2: Maybe all the birds -
Student 1: Maybe the moon collapses onto the bed, like it just says, to fall out -
Student 2: Or the person in the bed is passed away!
Student 1: No, that's too dark.
Student 2: Yeah, that's too dark.
Student 1: A lone person and about -
Student 2: Maybe the person is trying to escape, and, and they want to escape before it gets dark.

Student 1: Maybe they're following the birds to escape! They've left their homes and the flower is hope. The fields of flowers are like an explosion!
Student 2: They do! It's like they're exploding, like boom! The exploding flowers go boom! Hahaha.
Student 1: Clouds of flowers!
Student 2: Maybe they're like, kaboom, maybe everything just goes kaboom because of like the clouds -
Student 1: Yeah that's, that's good though. And the flower maybe represents, is represented by red -
Student 2: The red in the flower represents blood and when the flower dies you lose your blood!

From the start, they use cumulative talk and build on each other's ideas, have consistent turn-taking and equal levels of student participation. There is more elaboration in this extract than was seen at the start of the unit, and students move from collaborative reasoning to more exploratory talk. Although they do interrupt each other's turn-taking, as seen by the dashes, it is as a result of their excitement to develop their ideas further. The use of exclamation marks reflects their excitement and the rising volume of their discourse. They build quickly and comfortably on the idea of the flower explosion and elaborate on their responses consistently.

Though students learn to work together and develop their ideas in a pairing, the lack of questioning makes it difficult to state that all students moved to dialogic learning, especially with only a select group of students represented in the data. There are some examples of exploratory talk towards the end of this lesson when Student 1 suggests "Clouds of flowers!" then Student 2 builds on that statement with "Maybe they're like, kaboom, maybe everything just goes kaboom because of like the clouds -", and Student 1 expands further when they suggest "Yeah that's, that's good though. And the flower maybe represents, is represented by red -". This evolution of ideas shows these students moving from cumulative to exploratory, but at this point in the intervention, there are few examples and many groups struggled to move beyond cumulative talk.

Is there an effect on classroom environment of encouraging dialogic learning?

On the pre-intervention questionnaire, 62% of students answered 'agree' or 'strongly agree' to the question: 'I feel comfortable asking the teacher questions in front of the class', however, 15% of students answered 'disagree' or 'strongly disagree'. This could be due to concern over the questions they want to ask, feelings of nervousness about teacher or student response to their question, or a preference for asking questions in private, not seeing how their question can be useful to those around them. However, 62% of students also 'agree' or 'strongly agree' to the question: 'I feel comfortable putting my hand up to answer questions in class' with only 6% who 'disagree' or 'strongly disagree', suggesting that students feel more comfortable when they have control over their responses. Both questions had between 30-40% of students 'neither agree nor disagree'. This suggests that it could depend on the situation, the type of question asked, student history of class participation, or their mood at the time of filling in the questionnaire. Nevertheless, most students felt comfortable asking and answering questions on a regular basis. The previous questions are also more public and therefore more vulnerable situations. Fortunately, when asked: 'If I have a question about work/content, I will ask my teacher' 77% 'agree' or 'strongly agree' indicating a positive classroom environment. This is reinforced in the transcripts and field notes with students repeating the language they were taught to use in conversation and with how quickly many students learned to elaborate and move from cumulative to exploratory talk.

Nonetheless, there was a noticeable decline in the quality of discourse when we changed units from Poetry to Crime Fiction. Though turn-taking and student participation remained consistent, there were very few examples of collaborative reasoning. This meant that at the start of the new unit, there was no exploratory talk and any questions asked in pairs remained simple or closed questions. However, some students were able to transfer some skills from one unit to the next.

Student 1: He gives you something to think about instead of just reading, and when he like says about a case you just wanted or the answer to it…
Student 2: It makes you intrigued because, like it suggests he's not normally up at that time, so it shows he's like in a rush or is excited.
Student 1: I agree.
Student 2: We could think about like why he's up…
Student 1: Or like how did he even get in the room, does he have a key?

Student 2: You know the answers.
Student 1: Because like, why does he have a key and has to get in the room?
Student 2: It says he has a case so seems like it must be important.
Student 1: "Untimely" kind of shows that like it wasn't a natural death, it was like a murder.
Student 2: Yeah because it feels like it was a rush -
Student 1: Yeah it feels like it has just happened -
Student 2: Yeah and now it shows it was probably pretty bad.
Student 1: Yeah this looks like this is a promise like a pledge.
Student 2: What does pledge mean?
Student 1: It's like when you promise to do something or like you're guaranteed to do something.
Student 2: So we want to know why there's a pledge then.

These students have transferred their skills of how to work with another partner and managed to share in collaborative reasoning when discussing when the murder may have happened and its importance. Though they have consistent cumulative discourse, there aren't many chances to move to exploratory talk. However, when Student 2 asks 'What does pledge mean?' there was no hesitation, nor is any negative tone used by Student 1 when answering. They are both working in an implied agreement that questions can be asked and answered.

The handling of errors in the new unit was also notable.

Student 1: 'How does Conan Doyle engage their reader?'
Student 3: Oh yeah because they like, they just talked about a crime and now Sherlock Holmes is acting like, really strange being up early.
Student 1: Yes, like something must have happened.
Student 3: Yeah because it's like, early in the morning so it must be urgent. What do you think?
Student 2: I think the same, I think Sherlock has been up all night to try and solve the case.
Student 1: "It was early in April when I saw him standing fully dressed", okay so if he was going all night then why would he be like, fully dressed already, like would you be fully dressed if you're in the night-time?
Student 2: Yeah.
Student 1: Would you?

Student 2: Well, could be possible.
Student 1: I guess you could have had an early case, like in the morning.
Student 2: Or maybe it's newly reported or a new scene.
Student 3: Well maybe he's right, maybe he figured something out in the night like if you're up all night you just stay in your clothing, you don't need to change in the morning.

In this excerpt, Student 1 does not think that Student 2 had an acceptable response to 'would you be fully dressed if you're in the night-time?' when they repeat 'Would you?'. When Student 2 does not change their mind and instead responds, 'Well, could be possible.' Student 1 does not argue or try to change their mind. Instead, Student 1 shows that they are open to a new point-of-view and tries to interpret the text in a new way from their original thoughts with 'I guess you could have had an early case, like in the morning', which is then built upon further by both Student 2 and Student 3. What Student 1 originally interprets as an error is not contradicted but met with an open mind and a willingness for further discussion.

Is there an effect on classroom environment of encouraging dialogic learning? When asked to agree or disagree to the statement 'I think class discussion is useful' in the pre-questionnaire, 87% responded 'agree' or 'strongly agree' and 3% 'disagree' or 'strongly disagree'. Some responses in the short answer section were: "it's good when we don't have to put our hand up because you can just chime in at any point with whatever you think" and "You can get other people's point of view and you can rethink your first idea and make it better" showing an awareness of interpretations beyond their own. However, not all responses were positive: "it's kind of useless as I feel stupid not knowing an answer." This highlights some students' lack of understanding of the purpose of class discussion. Nevertheless, the post-intervention questionnaire was encouraging. This time 0% of students chose 'disagree' or 'strongly disagree' and 92% who responded included hearing or sharing ideas with others in their short answers: "It means people get their idea across and can help you to understand more" along with "because you can get others' opinions and see what others think". Interestingly, one student wrote: "You can share ideas, but sometimes you're not credited for them because then everyone writes it in their assessment" revealing how some students feel about their ideas, and why they might be hesitant to share; they do not see sharing as beneficial, as much as it is them doing the work for others.

When students responded to 'I feel comfortable disagreeing with the teacher' in the pre-questionnaire, 40% of students chose 'agree' or 'strongly agree' and 28% chose 'disagree' or 'strongly disagree'. However, in the post-questionnaire, those numbers

improved slightly to 41% and 23%. More impressively, when responding to 'I feel comfortable disagreeing with another student', the pre-questionnaire showed 75% 'agree' and 'strongly agree' with 3% 'disagree' and 'strongly disagree' but the post-questionnaire showed an improvement to 81% and 0%. Notably, in the pre-questionnaire, five responses stated they should not challenge authority, or asserted that they would get into trouble, as reasons for 'disagreeing'. Comments ranged from: "I do feel comfortable disagreeing with the teacher or another student because I don't think their opinion is right", "I feel comfortable disagreeing because, everyone has their own thoughts and opinions and we can talk about if it is wrong or right and why we thought of that" and "I feel comfortable because I know if I get something wrong they won't judge and will try to build on my answer", to "Because the teacher is probably right or they might give you a detention at talking over the teacher" and "I feel that if I disagree with the teacher I might get told off depending on the teacher or offend another student". Many responses included the idea of opinions being either right or wrong. Though the post-questionnaire maintained a couple negative comments such as "Teachers are always right" showing the embedding of authority correctness, it also had "I do feel comfortable disagreeing with the teacher or another student as my points have backing and I believe I am right" illustrated that some students still believe opinions are interchangeable with facts. There were far more comments like: "I feel comfortable disagreeing with someone because it makes people think of the different options" and "Everyone has made mistakes before so if I'm wrong its fine". This demonstrates a gradual shift from feeling uncomfortable sharing ideas out of fear of being wrong, into being more open about sharing and disagreeing because multiple views can be heard. It is also noteworthy that in the post-questionnaire, no student wrote about fear of rejection from their peers or how they might be treated if they disagreed with another student. Students started to shift from not understanding the importance of dialogic learning, to internalising its function and embracing some of these skills in the classroom.

What is the impact of dialogic learning on students at an individual level?

Using the *Thinking Together* lessons, then working on those skills to create a more dialogic atmosphere, helped students to appreciate a different way of learning. For some, their preferred way of learning shifted. When responding to the statement: 'I prefer lessons when the teacher lectures to the class or I prefer lessons where we discover answers and ideas in pairs or groups", 11% chose lectures, 42% paired work and 45% both. One student who

chose lectures explained “I think I learn more” showing the focus to be on the authority of the teacher to know the answers and impart that knowledge. Regarding paired work, one student stated “It gives us an advantage to talk and broaden our ideas and perspective” showing a positive view of what can be gained from shared thoughts, while another student explained “I prefer my choice because it is my opinion and I think I am allowed to say what I want”, suggesting they see paired work as a way of stating their own opinions, with no mention of listening or learning from others. A student who chose both clarified “I like both because both of them have their ways of teaching and all types of learning strategies”, conveying that they see the benefit of diverse techniques to learning. Importantly, in the post-questionnaire, those who preferred lectures decreased to 7% and paired work went up to 52%. One student recognised that “You can’t always be in pairs but sometimes it’s important for the teacher to be at the front of the class discussing the thing we are working on so it’s good to have a bit of both” while other students explained, “it gives the lessons a more open-ended subject instead of a fixed answer”, “We can communicate to each other” and “in English specifically it is much more enjoyable to do group work or paired work (also depends on who with)”. This preference shift could be, as stated in some of the short answers, that lectures are viewed as boring; it could also be that students enjoyed working in pairs, or at least with their most recent partners. However, this can also be seen as a shift to students recognising the value of working together to develop their own ideas and answers.

There was also a shift in student willingness to engage in lessons and paired work. The response to the statement ‘I enjoy discussing ideas with my partner in class’, 26% chose ‘agree’ or ‘strongly agree’ with 17% ‘disagree’ or ‘strongly disagree’ in the pre-questionnaire. However, the post-questionnaire showed a significant increase to 52% ‘agree’ or ‘strongly agree’ and a drop to 11% ‘disagree’ or ‘strongly disagree’. There was also a shift in how students viewed paired talk. When students first responded to ‘I find paired talk (discussing with my partner) useful’, a significant 72% chose ‘agree’ or ‘strongly agree’, but 13% chose ‘disagree’ or ‘strongly disagree’. When asked to elaborate, 46% of those who responded specifically mentioned the chance to build on ideas as a positive reason, “I get new ideas on the topic” and “I enjoy pairs because I get a chance to share my thoughts if I don’t want to share them to the class” suggesting that paired work is a safer space to share ideas and work out thoughts on a topic than in front of the whole class. However, of those who chose either ‘neither agree or disagree’, or ‘disagree’, 15% stated only wanting to work with friends as their reason. Some explanations were: “Depending on the person they could slow the work and not contribute in a positive way” and “I do not as I don’t find it easy to talk to

people I don't know". Fortunately, in the post-questionnaire, 'disagree' and 'strongly disagree' reduced to only 5%. Based on the responses, some issues with paired work still remained: "it is sometimes distracting and don't do the work" along with "I find it a bit difficult to work in pairs as I don't really like social contact with peers and I find it difficult due to my neurological conditions and I just prefer solo or teacher lead work is my preferred work types". Meanwhile more pro-pair comments were, "It means you can share ideas and if you don't know something get help with it" and "when I have a good partner we help each other think things through". Students were not suddenly free of distractions, but more are seeing the benefits of being able to share and develop ideas with others. One student has a clear preference "I would prefer to talk with my whole table" suggesting they struggled to work with an easily distracted or disengaged partner; if they worked as a table, that student would have the option of working with different partners. This was confirmed by the field notes of one of the observers, noting that students with a disengaged partner either joined a pair to make three, or engaged in group talk with their table.

There also seemed to be an improvement in student confidence levels. The response to 'I feel confident in explaining my ideas or opinions to other people' showed that 60% 'agree' or 'strongly agree' while 17% 'disagree' or 'strongly disagree' in the pre-questionnaire. However, in the post-questionnaire, these changed to 66% and 14%. Though this may seem a small improvement, there was a significant shift in the response to the statement 'If I get stuck, I can usually work things out'. In the pre-questionnaire, 42% chose 'agree' or 'strongly agree' but in the post-questionnaire, this increased to 57%. Some students may not be able to see that they are more able to verbalise their thoughts after one term of teaching, but they do feel more confident in themselves as learners. This suggests that the skills learned in paired work are starting to be internalised and to become useful independent skills.

The one part of the post-questionnaire that was different from the pre-questionnaire was the addition of the short answer question: 'My thoughts on talk in class have or have not changed because…'. Though a couple responses were similar to this statement: "Haven't changed because I still think that it is useful but only if you like talking with them", most responses were more positive. One student explained "my thoughts on talk in class have changed because when someone is saying and pointing a really good explanation about an idea, so I might have another thought about if what I think is right or not". This response indicates that they are learning to be reflective and suggests a growing recognition that their opinions may not necessarily be fact. Another student stated, "It's because I'm used to the

routine I'm in throughout the year", indicating that repetition and consistency can help students see the benefit of dialogic discourse. Other students stated, "the teachers take in your view" showing the reinforced positive classroom environment and "They have changed as I now have a better understanding of how to talk and disagree with others better than when I started. I found that the 'talking and listening' term was helpful". The "how to talk and disagree" is an interesting reflection on the purpose of disagreeing in a class and the break-down of talking and listening skills in the *Talking Together* resources has been acknowledged, even after a whole term.

There were three points in the intervention when external teachers observed my lessons and provided verbal feedback. The first observation was early in the intervention. At one point, pairs on a table group of six completed the first question on the board. After this, the table engaged in conversation as a group. When asked if they were done, one student responded "yes, now we are just having a chat". When the observer pointed out that there were three more questions to be completed, the students appeared confused then tried to go back to their paired work.

After two weeks, a new observer commented that when pairs completed the set work, students were moving to group talk but it remained about the work. They checked answers with other pairs and genuinely sought out others' thoughts. There was one student at a table of six who tried to change the topic and discuss plans for break, but after a few short replies from the group, no one wanting to engage in off-task discourse, that student reverted to sitting back in their chair and looking at the ceiling, while the rest of the table continued to discuss the work.

By the end of March, students were re-reading the task questions, looking at the key words in the questions, and discussing what they could mean. Off-task and disengaged students remained, but in lower numbers than the start of the intervention; moreover, they often struggled to find peers to engage with about topics unrelated to the work. This could be due to a carefully organised seating plan but can also be attributed to students having more confidence in how to share their ideas and interest in their work. Furthermore, students became more likely to self-correct after a distraction. The final observer noted that although at times students would make a comment about the work that would remind themselves of off-task ideas or stories, they would often return to the set work themselves or guide their partner back to the topic. Distractions are normal among 12-year-olds but the skill of self-correcting to return to the work was not observed in these classes prior to the intervention.

Discussion

Dialogic learning is important to both me and my school to help develop students' independence as learners and accountability for their learning. The decision to focus on paired work came from a desire to help build independence and reduce off-task discourse that could arise from larger group work. It also provides the opportunity for students who are generally more introverted or quieter in nature than their peers, to have their own voices heard and experiment with decision-making, opportunities that are also more difficult or rare in larger groups or whole class discussion. It was evident that, with lessons focused on paired talk coupled with time for reflection on how well students succeeded in both listening and discussion, students can learn to become more exploratory in their academic discourse.

What does talk look like in Year 8 secondary classrooms?

The earlier transcripts show predominantly disputational talk as described by Mercer (1995) when students were first learning how to work in pairs. Even after the students set their own ground rules and seemed to be engaged with the *Thinking Together* lessons, it still took time for them to internalise what they were learning. However, there were brief moments where students were already using cumulative talk from the first lesson, though these moments were only for short periods of time. After several lessons with plenaries focused on reflection and goal setting for paired-work, cumulative discourse became standard, and students started to move towards exploratory talk following the pattern as suggested by Mercer (2008).

It was encouraging to see the consistency in turn-taking and student participation in most of the transcripts. However, despite reflections and ground rules, there was a small number of students in each class who were more often disengaged. This range of focused and unfocused students portrays a typical presentation of 12–13-year-olds in secondary school. What was particularly interesting was the handling of errors. Despite modelling, the emphasis that poetry does not need to have 'one right answer' as suggested by Elliott (2020), and the reinforcing the importance of being able to share ideas with their partners, there was either avoidance of suggesting what could appear 'wrong', or in the example above, a mishandling of errors at the beginning of this intervention. The reframing of errors took time to model; students needed to understand the concept of empathy and learn to be open to others' perspectives. Additionally, it took time to build trust in many of the pairings, as was suggested by Ingram et al. (2015).

I was most surprised at the lack of questioning seen in the transcripts. Based on questions asked in class or directed towards me in a typical lesson, I expected those questions to be transferred to partners. This lack of questioning could be due to the nature of paired work; with more students cumulatively building on an idea or interpretation, most questions could be unnecessary. According to Alexander (2020), teachers spend a significant amount of time structuring their questions, and this can also include our written questions when students are working in pairs or independently. It is possible that the questions used in many of these lessons were so structured that there was little room for additional questions from students. It could also be due to lack of understanding. Students may not know what questions to ask or feel they have the freedom to build on a teacher-set question. This follows the research conducted by Eshach et al. (2013) and Chin (2007). They explain that questions are vitally important and needed for learning, but students need to be taught how to ask questions and when.

This lack of questioning could also explain why there were so few instances of exploratory talk. Fisher (2011) clarifies that exploratory talk can include long pauses, usually when a student is thinking, the use of utterances and filler words that show hesitations, or even a rephrasing or inclusion of a new idea. There were few filler words used throughout the recordings and long pauses were mostly seen at the start of the intervention when students were preferring to think and work alone instead of in their pairs. However, students did not often say "and what about this" as a form of questioning, their cumulative discussion and turn-taking replace subtle questioning. Wegerif (2000) explains that students will learn from how teachers model these rules and how they encourage questions, but that it "is not a simple or automatic procedure that can be communicated with a few lesson plans- it requires commitment from teachers" (pp. 127-128). It is clear that active work on teaching questioning is still needed.

Is there an effect on classroom environment of encouraging dialogic learning?

Both the pre- and post- questionnaires indicate a safe and positive classroom environment but illustrate that the environment created by the teacher is not always adopted by students in their pairs immediately. The students' social environment outside the class can impact the workings inside, therefore students need to continue to be taught and reminded about how to behave in pairs in the classroom. The transcripts also suggest that student comfort levels can have a dramatic effect on student progress. Comfort levels in the class can be determined not only by the teacher but also with the amount of time in the same environment. With poetry,

the recordings showed a clear development in classroom environment and how students were working in their pairs, but the time spent on this unit could also be a contributing factor. The more comfortable students became with the topic, the more comfortable they felt discussing it. Likewise, when we changed topics, students were also moved into new pairs. Since both happened simultaneously it is difficult to differentiate between the new pairs or the new topic for why there was a decline in Mercer (1995) and Fisher's (2011) definition of exploratory talk. It appears that some talk skills were more transferable than others: those comfortable with elaboration continued to elaborate and clarify their ideas, and errors were being treated in a more positive way showing consistency with the ideas of elaboration and student participation from Howe (2021).

The shift between units is an important time for teachers to revisit ground rules and the talk skills students have been working on previously. This reinforced Alexander's (2020) belief in teaching children how to think for themselves, and Fisher's (2011) suggestion of teaching students the skills of discussion. Students needed this help to adjust to the new unit or new pairing where they may not have as much previous knowledge or need to build trust in their new partner. Although students need to be taught how to transfer their skills, the speed of which students went from disputational to cumulative speech in the second unit happened within one to two lessons, whereas it took about two weeks for that adjustment to be made in the first unit, showing that it takes less time to adapt to the new unit than it did to develop the skills at the start. This was noted in observational notes but also in the first transcripts for the Crime Writing unit. After students were reminded of the talk rules and given time to reflect on their previous speaking and listening goals, students made a quick adjustment to cumulative talk. The following transcript shows this adjustment when Student 1 suggests "He gives you something to think about instead of just reading, and when he like says about a case you just wanted or the answer to it…" quickly added to by Student 2 "It makes you intrigued because, like it suggests he's not normally up at that time so it shows he's like in a rush or is excited". This building happened in the first lesson and was supported by another group's interaction in the first lesson. Student 1 starts the agreement "Yes, like something must have happened" and Student 3 immediately builds with "Yeah because it's like, early in the morning so it must be urgent. What do you think?" allowing room for Student 2 to take the idea even further by adding "I think the same, I think Sherlock has been up all night to try and solve the case". It took another lesson or two for students to transfer the skills from the previous unit to the new unit, suggesting that consistency can aid faster

transference. More research needs to be completed, but it is possible that the decline between units should become less noticeable the more it happens.

There was a clear improvement in handling of errors, and this is an important indicator of learning and emotional growth. Learning is no longer a competition but a way of hearing different ideas and opinions, as supported by many of the responses in the post-intervention questionnaire and in support of Vygotsky's (1986) theory that we learn through conversation.

What is the impact of dialogic learning on students at an individual level?

It was interesting to see that students went from rushing to complete the work and avoiding depth in their discussion, preferring to 'have a chat', to self-correcting their focus and not engaging with students who were seeking off-task chatter. This is not to state that every group was on-task all the time in every lesson, but there was an improvement in focus. Maturity and emotional intelligence may also be a factor in learning in general. Despite more students focusing and their ability to move from paired work to group work, some students still struggled to engage in the lessons, either on their own or with partners. Even with the assistance of a group, a few did not use the opportunity to improve their learning. The range of transcripts from the start of the intervention could be linked to students' varying levels of maturity, which could also impact their ability to transition between units and apply their talk skills to new content. The comments on the questionnaire suggest that the most difficult hurdle to paired talk is having a partner who does not wish to engage. More research needs to be completed to help solve that conundrum.

It was a positive discovery to see students preferring paired work to lectures in lessons and finding that paired work useful for their learning. There was also a noticeable improvement in length and depth of the paired discourse throughout the intervention, suggesting a greater quality of discussion or more confidence in sharing detailed ideas. Even though the focus of this intervention was on paired talk there was improved group discourse, as noted by the field notes from the observing teachers. Though the most significant data is the improvement in students being able to support themselves when they 'get stuck', as this is arguably the most important life skill they are gaining from these lessons.

What does this mean for teachers?

The goal of this practitioner research was to help improve discussions, thinking, and reasoning skills. Though the guided reading sessions in the research by Skidmore et al. (2003) showed promising results, class sizes in secondary schools mean that research on developing talk needs to look very different.

The first few transcripts did show short and fragmented turn-taking, supporting the work of Mercer (1995) and Wegerif (2000), however a focus on teaching turn-taking and conversation skills quickly rendered discussion more productive, supporting the work of Charney et al. (2021). Nonetheless, this research highlighted that not everything can be controlled in a large classroom setting and some individual aspects of language were difficult to track, as first explained by Howe et al. (2019).

The *Thinking Together* resources were shown to be useful, and the transcripts showed key phrases being used to help develop discussion in pairs. The use of these resources was also supported by Philipson and Wegerif (2019). I also followed the guidance of Corden (1992) and Skidmore (2000) by letting the pairs control their own discussion with very little intervention from me, and the pre-teaching before paired work also tried to follow the guidance of Mercer (2008) by posing open-ended questions with no clear suggestion of what might be right or wrong. I initially assumed that teaching these lessons before the start of the new unit would enable students to use these skills immediately in lessons and to engage in exploratory talk early in the unit. However, students needed to experience errors, long pauses, and silence before they could understand how to apply the skills introduced to them in these initial lessons. Based on this project, it would take more than two months to embed dialogic learning in pair-based work.

In addition to using the *Thinking Together* lessons, I also found reviewing the ground-rules with the class and reflecting on their discussion skills useful. Students would consider how well they used both their talking and their listening skills, as supported by the DfE, then set goals for the next lesson, taking time to review those goals before starting. This gave students individual targets that could be applied immediately and helped to guide their focus in each lesson.

I did struggle to scaffold talk for my students. Though there was a list of sentence starters embedded in the unit (as seen in Appendix 7: Sentence Starter), students struggled at the start of the intervention to move beyond those starters and develop their ideas or interpretations. Here is where I used the advice from David Thomas from School 21 to guide

students the way I would when they are writing paragraphs. Having students verbally explain their initial thoughts and the evidence they have for those ideas, or to identify key words in what they are reading, all helped to move students beyond the sentence starters. Students also enjoyed the use of *Talk Detectives* and took the role of detective very seriously. Students were quite strict in what they considered to be quality paired discussions, crossing off names if students were not consistent across the whole of the task. Those not chosen to be the detective wanted to be identified as 'good examples' and would put in more effort to use the skills and phrases they were taught.

In my future practice, I would take more time to teach different types of questions and when those questions might be useful. Instead of just sentence starters for students to use, I would also include some sample questions to help students when they are not clear on how to move the conversation forward. I would also consider groups of three when time has shown one student to be disengaged or struggling with the amount of work that goes into paired discussions. This would help off-set the pressure on one student or the lack of support for the other.

Conclusion

Dialogic learning in pair-based work in the secondary classroom takes time. There is a history of negative reinforcement from the media and even education ministers, supported with misunderstandings on what talk in the classroom should look like, and academic pressures on both students and teachers to achieve results over life-skills, that do not support changes in pedagogy. Though change in practice and in societal understanding may take some time, the research shows that the time is worth it.

Despite previous educational experiences that dominated with monologic, teacher-dominated talk, within two weeks of teaching combined with reflection and review, some changes in how students spoke with each other were already apparent. Changing norms in the classroom can be difficult and norms are often resistant to change, but students were quickly learning how to engage in productive talk.

Dialogic learning requires an expectation of discourse in the classroom, along with consistent and active teaching of discussion skills. Students develop confidence in their discourse skills at different rates, but with a fostering of these skills and a safe working environment, all students can achieve a progression in their academic discussions that can show a transference of their talk skills in further social situations.

Transference of these skills between units is not guaranteed. Teachers need to encourage the transfer of speaking and listening skills, remind students of how they have been working and explain how those skills can be used in a new unit. With candid focus on teaching transference, rapid progress can be made.

It is possible that natural growth can occur through maturity and standard progress, but this can also be due to active intervention, particularly for those students who may not have access to as many opportunities for growth outside of the classroom. We can do this by focusing on a few elements of talk first, like how to use sentence starters in discussion and how to listen, then building on our pedagogy through teaching questioning and how to deal with errors or alternate views in discussions.

We have the research and as a profession we know the importance of dialogic learning. It is important that we make this a key practice in our classrooms.

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Appendix 1: Certificate of Ethics



Appendix 2: Pre- and Post-Intervention Questionnaire

ID	Start time	Completion time	Email	I feel comfortable asking the teacher questions in front of the class.	If I have a question about work/content, I will ask the teacher.
1	5/10/23 14:30:51	5/10/23 14:33:32	anonymous	Neither agree nor disagree	Agree
2	5/10/23 14:31:45	5/10/23 14:33:44	anonymous	Agree	Agree
3	5/10/23 14:31:14	5/10/23 14:33:45	anonymous	Neither agree nor disagree	Disagree
4	5/10/23 14:31:01	5/10/23 14:34:13	anonymous	Agree	Strongly agree
5	5/10/23 14:30:59	5/10/23 14:34:28	anonymous	Strongly agree	Strongly agree
6	5/10/23 14:31:13	5/10/23 14:34:36	anonymous	Strongly agree	Agree
7	5/10/23 14:31:18	5/10/23 14:35:01	anonymous	Agree	Agree
8	5/10/23 14:30:46	5/10/23 14:35:37	anonymous	Neither agree nor disagree	Agree
9	5/10/23 14:31:20	5/10/23 14:35:37	anonymous	Agree	Neither agree nor disagree
10	5/10/23 14:31:41	5/10/23 14:36:11	anonymous	Disagree	Disagree

How many questions do I tend to ask in class, to either the teacher or a peer, per lesson?	I feel comfortable answering questions in class when called upon.	I feel comfortable putting my hand up to answer questions in class.	How many questions do I volunteer to answer in class per lesson?	I enjoy discussing ideas with my partner in class.
1-2	Neither agree nor disagree	Neither agree nor disagree	0	Neither agree nor disagree
1-2	Agree	Agree	1-2	Neither agree nor disagree
1-2	Disagree	Neither agree nor disagree	1-2	Strongly disagree
3-4	Neither agree nor disagree	Agree	3-4	Agree
1-2	Strongly agree	Strongly agree	3-4	Strongly agree
3-4	Agree	Agree	1-2	Strongly agree
1-2	Agree	Neither agree nor disagree	1-2	Agree
0	Disagree	Neither agree nor disagree	0	Agree
5+	Strongly disagree	Agree	1-2	Strongly agree
0	Agree	Disagree	0	Disagree

I find paired talk (discussing with my partner) useful.	I enjoy working in pairs.	I do enjoy or do not enjoy working in pairs because...	I have shared an idea in class where I disagreed with someone else's point of view (either the teacher or another student).
Neither agree nor disagree	Agree	i would prefer to talk with my whole table	Neither agree nor disagree
Neither agree nor disagree	Agree		Agree
Strongly disagree	Disagree	my brain gets distracted easy	Strongly agree
Neither agree nor disagree	Strongly agree		Agree
Strongly agree	Strongly agree	i do enjoy working in pairs when it is someone you like to talk to outside of lessons	Strongly agree
Strongly agree	Strongly agree		Strongly agree
Neither agree nor disagree	Agree	It means you can share ideas and if you dont know something get help with it.	Disagree
Agree	Strongly agree	it depends who the person is	Disagree
Strongly agree	Strongly agree	i do enjoy working in pairs because i enjoy not just sitting in quite all the time listning to the teacher	Neither agree nor disagree
Agree	Agree		Strongly disagree

I feel comfortable disagreeing with the teacher.	I feel comfortable disagreeing with another student.	I do or do not feel comfortable disagreeing with the teacher or another student because...	I prefer lessons when the teacher lectures to the class or I prefer lessons where pupils discover answers and ideas in pairs or groups.	I prefer my choice because...
Neither agree nor disagree	Strongly agree		Both lectures and paired/group work	
Agree	Agree		Paired or group work	
Strongly agree	Strongly agree	i want lots of proof	Both lectures and paired/group work	
Neither agree nor disagree	Agree		Lectures (teacher talking at the front)	
Strongly agree	Strongly agree		Paired or group work	it gives the lesson a more open ended subject instead of a fixed answer.

Strongly agree	Strongly agree		Paired or group work	
Neither agree nor disagree	Agree	Some teachers get a bit annoyed when you say theyre wrong.	Paired or group work	It makes it more interesting and you can talk to people more.
Agree	Neither agree nor disagree		Paired or group work	because then i will be more comfortable
Strongly agree	Strongly agree	i do because i can get my point acros if i think a teahcer is wrong	Paired or group work	you cun explor things in you own way
Strongly disagree	Strongly agree		Paired or group work	

I think class discussion is useful.	I think class discussion is or is not useful because...	I like coming to school.	I get on well with my teachers.	I often get bored in class.
Agree		Neither agree nor disagree	Agree	Strongly agree
Agree		Disagree	Neither agree nor disagree	Agree
Neither agree nor disagree		Neither agree nor disagree	Disagree	Strongly disagree
Agree		Disagree	Neither agree nor disagree	Strongly agree
Strongly agree	i think it is useful because you can share ideas with the rest of the class	Agree	Agree	Agree
Strongly agree		Strongly disagree	Strongly agree	Agree
Agree	It means people get their idea across and can help you to understand more.	Neither agree nor disagree	Neither agree nor disagree	Strongly agree
Agree	i think it is so people get more understanding of what we are doing	Neither agree nor disagree	Agree	Agree
Strongly agree	so you can then all be on the same page about something	Strongly disagree	Agree	Strongly agree

Agree		Disagree	Neither agree nor disagree	Strongly agree

English is one of my favourite subjects.	Most of my friends enjoy English classes.	If I get stuck, I can usually work things out.	I am not good at most subjects in school.	I am good at working with other students.
Disagree	Disagree	Neither agree nor disagree	Disagree	Agree
Disagree	Disagree	Agree	Disagree	Agree
Disagree	Neither agree nor disagree	Neither agree nor disagree	Strongly disagree	Strongly disagree
Neither agree nor disagree	Neither agree nor disagree	Agree	Strongly agree	Agree
Agree	Agree	Strongly agree	Strongly agree	Strongly agree
Strongly agree	Neither agree nor disagree	Strongly agree	Agree	Strongly agree
Disagree	Disagree	Agree	Disagree	Agree
Disagree	Agree	Neither agree nor disagree	Agree	Neither agree nor disagree
Strongly disagree	Strongly disagree	Strongly disagree	Strongly agree	Strongly agree
Strongly disagree	Neither agree nor disagree	Neither agree nor disagree	Agree	Neither agree nor disagree

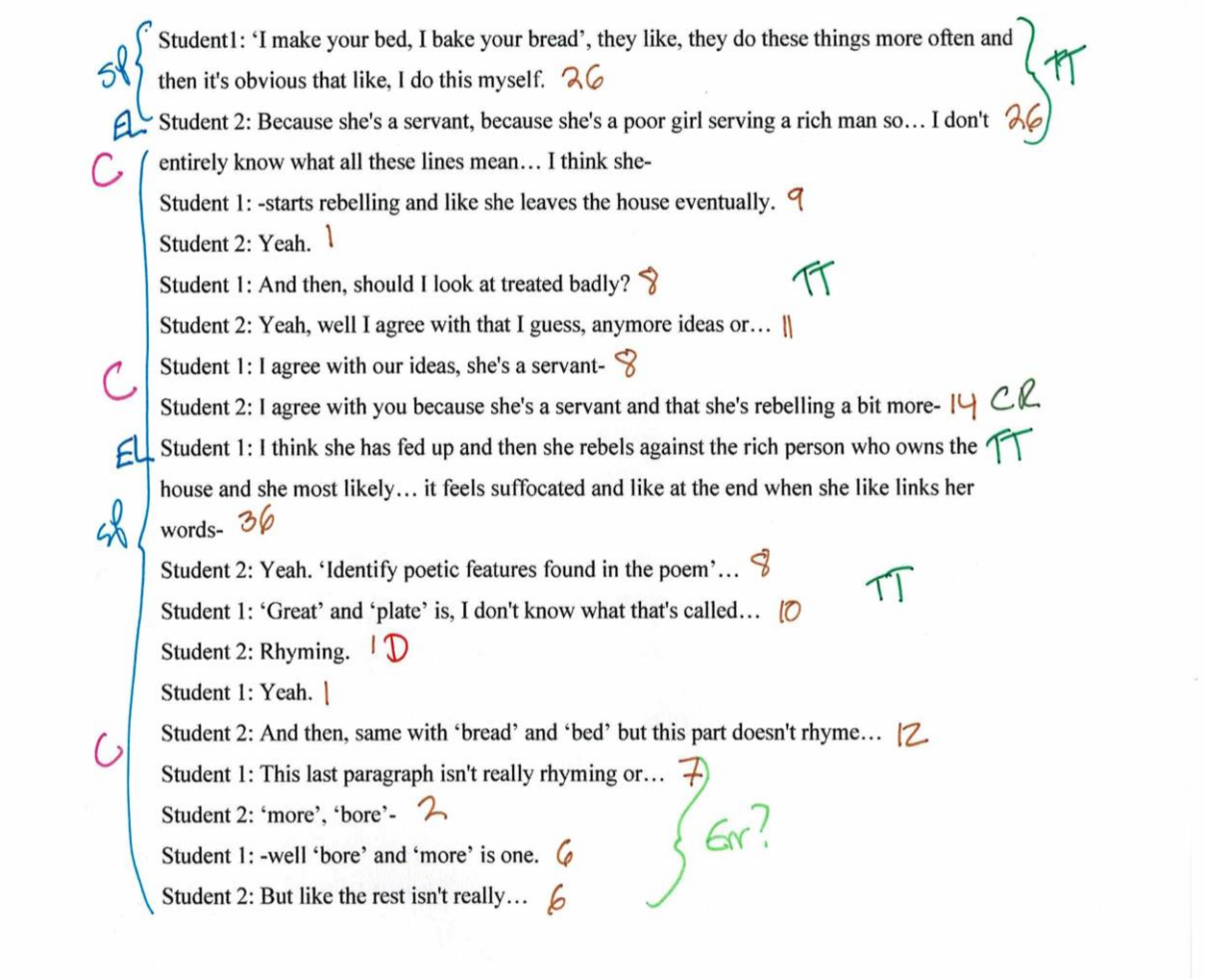
I know how to be a good learner.	I feel confident in explaining my ideas or opinions to other people.	I find a lot of schoolwork difficult.

Agree	Agree	Neither agree nor disagree
Agree	Agree	Disagree
Neither agree nor disagree	Strongly disagree	Strongly Agree
Agree	Agree	Strongly Agree
Strongly agree	Strongly agree	Strongly disagree
Strongly agree	Strongly agree	Strongly Agree
Agree	Agree	Disagree
Neither agree nor disagree	Neither agree nor disagree	Agree
Strongly disagree	Strongly agree	Strongly Agree
Agree	Agree	Neither agree nor disagree

Appendix 3: Coding Legend

Code	*Terminology or phrase*	*Purpose or reasoning*
D	Disputational	Stating ideas, not listening to other ideas. Short or fragmented turn taking.
C	Cumulative	Contributes and builds on an idea.
E	Exploratory	Working together and sharing ideas openly.
EL	Elaboration	Explaining thoughts in detail.
Q	Querying/Questioning	Asking open or closed questions to peers.
SP	Student Participation	Students taking part equally in the conversation.
TT	Turn-Taking	Students take turns talking or sharing ideas.
ERR	Errors	Where students respond to a perceived mistake.
CR	Collaborative Reasoning	Working together to form or develop an idea or interpretation.
U	Utterances	The number of words spoken by each participant.
F	Fillers	Sounds or words that represent thinking or fill the need to reply when an answer is unknown.
OT	Off-Task	A comment that is not related to the main topic.

Appendix 4: Coding Sample



Student1: 'I make your bed, I bake your bread', they like, they do these things more often and then it's obvious that like, I do this myself. 26

Student 2: Because she's a servant, because she's a poor girl serving a rich man so… I don't 26 entirely know what all these lines mean… I think she-

Student 1: -starts rebelling and like she leaves the house eventually. 9

Student 2: Yeah. 1

Student 1: And then, should I look at treated badly? 8

Student 2: Yeah, well I agree with that I guess, anymore ideas or… 11

Student 1: I agree with our ideas, she's a servant- 8

Student 2: I agree with you because she's a servant and that she's rebelling a bit more- 14

Student 1: I think she has fed up and then she rebels against the rich person who owns the house and she most likely… it feels suffocated and like at the end when she like links her words- 36

Student 2: Yeah. 'Identify poetic features found in the poem'… 8

Student 1: 'Great' and 'plate' is, I don't know what that's called… 10

Student 2: Rhyming. 1D

Student 1: Yeah. 1

Student 2: And then, same with 'bread' and 'bed' but this part doesn't rhyme… 12

Student 1: This last paragraph isn't really rhyming or… 7

Student 2: 'more', 'bore'- 2

Student 1: -well 'bore' and 'more' is one. 6

Student 2: But like the rest isn't really… 6

Appendix 5: Talk Detectives



Talk detectives!

Mystery to solve: what does good oracy look like?

	Physical - Are they speaking loudly and clearly? - Are they using hand gestures?	
	Cognitive - Are they giving reasons for their opinions? - Are they asking questions?	
	Linguistic - Are they using ambitious vocabulary?	
	Social and Emotional - Are they tracking the speaker? - Are they making sure everyone gets a turn to speak?	

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Appendix 6: Talk Rules

We will listen and think about each other's ideas.

We will try to reach a shared agreement.

We can ask each other questions to help us understand everyone's ideas.

We will make group decisions we can all agree on.

We will take it in turns to reach decisions if possible.

We think it's best to share our relevant thoughts.

We will cooperate and try to get along with each other.

Stay on topic.

You can disagree, but you must be respectful.

We won't turn down ideas immediately.

Don't laugh at each other's ideas.

Don't talk over one another.

Make sure everyone's able to join in.

Appendix 7: Sentence Starters

Giving a new opinion I think that... My opinion is.. I believe that.. In my view ...	**Agreeing** I agree with .... because... I would argue the same thing because... The reason I agree with... is... That is an interesting point because...
Building I would like to build on ....'s point because... I agree with ... but I need to add... In addition to ....'s point... Building on what ... said... That is a good argument however it needs...	**Challenging** I don't think ... is right because... I would like to challenge this because... I disagree with...because... My own view is different because... This view is incorrect because...