

**Establishing the Ground Rules for talk:
influencing attitudinal change towards talk
as a tool for learning**

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Mark Finlay
University of Strathclyde

Abstract

An extensive body of research suggests that harnessing the full potential of purposeful talk as a tool for learning has a positive influence on the cognitive and social development of children. Socio-constructivist educationalists highlight the importance of active participation through social interactions with adults and peers in the co-construction of new knowledge. Talk has been evidenced as a fundamental tool to achieving this outcome. The purpose of this action research study, within the context of Curriculum for Excellence, was to investigate whether using 'ground rules for talk' could help to make the importance of talk as a teaching and learning tool explicit to both student teacher and classroom pupils and influence attitudes. Overall, the findings of this study suggest that by implementing 'ground rules for talk' positive changes in attitude towards the importance of talk in the co-construction of new knowledge and establishing a more dialogic ethos in the classroom can be achieved.

Introduction

The purpose of this study is to determine whether using 'ground rules for talk' can help to make the importance of talk as a teaching and learning tool explicit to both student teacher and classroom pupils. By making purposeful talk explicit can a more dialogic ethos be created in the classroom? Whilst working with others is a common occurrence in the workplace and is an advocated approach to learning within the Scottish curriculum (Scottish Government, 2008), the identified social and educational benefits of doing so are often not achieved (Baines, Rubie-Davies, & Blatchford, 2009; Blatchford, Kutnick, Baines, & Galton, 2003; Howe, 2014). Educational research has identified the positive impact effective group work can have on enhancing classroom based learning (for example see Christie, Tolmie, Thurston, Howe, & Topping, 2009; Slavin, 2010) and research into workplace interactions also highlights the importance and effectiveness of individuals working together in teams to tackle work related challenges (Littleton & Mercer, 2013). However, despite these positive findings, studies continue to show that grouped individuals tend to work individually rather than collaboratively which can negate the social and cognitive benefits to be gained from effective group work (Baines et al., 2009; Blatchford et al., 2003).

Talk and its effective use has been identified as a fundamental tool to support productive and creative social interactions which underpin cognitive development (Alexander, 2008b; Mercer, 2013). Confidence in the spoken word is a key learning experience and outcome of the current Scottish curriculum, Curriculum for Excellence (CfE). The guidance publication, Building the Curriculum 1 clearly highlights the importance of the spoken word by stating that spoken language is at the 'core of thinking' and through development 'facilitates more complex thinking and learning.' Development in language skills therefore is essential for progress in all areas of the curriculum (Scottish Executive, 2006, p. 13 & 14).

Additionally, in Building the Curriculum 2 it states that it is the responsibility of a teacher to facilitate opportunities for collaboration and meaning making (Scottish Executive, 2007). This approach to learning is also evidenced in the Literacy across Learning document and states that teachers must

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provide and promote learning opportunities to develop children and young people's cognitive development through effective modeling of the right kind of talk through specific experiences and outcomes (Education Scotland, n.d.).

Whilst these documents offer a framework for curricular planning and implementation there are clear tensions between the curriculum design and its implementation (Priestly & Humes, 2010). Priestley (2010, p. 24) states that teachers are considered 'agents of change' and require the appropriate structure and support to affect change but, as Cassidy (2013) notes, the vagueness of language used across these documents does not provide the required clarity for effective change to occur. Therefore this unfocused interpretation of an 'over-elaborate curricular architecture' (Reid, 2013, p. 457) may result in a reverting back to familiar practices with the intended progressive changes not being realized (Priestly & Humes, 2010).

Language therefore plays an essential role in the classroom (Cohen, Manion, Morrison, & Wyse, 2012) with its importance to cognitive development being evidenced in research and its purposeful use supported across a range of CfE framework and guidance documents. Additionally there is a large body of research that demonstrates the powerful impact effective talk has on pupil understanding and attainment when used as a teaching strategy across curricular areas - for examples see (Anghileri, 2000; Cremin & Myhill, 2012; Loxley, Dawes, Nicholls, & Dore, 2013). However, the use of talk in the classroom is often reported as being a one-sided activity with the teacher very much in control of who is talking and what they are talking about (Coults, 2012). Reading and writing are explicitly taught but teaching the right kind of talk for optimal cognitive development is often overlooked (Alexander, 2008b).

A possible explanation for this suggests that speaking and listening are difficult skills to assess and frequently overlooked in favour of reading and writing as they provide a standardised form of evidence of children's learning and academic progress (Bignell, 2011; Coults, 2012). This explanation is echoed in the secondary phase of CfE as skills in listening and talk are assessed through integrated classroom tasks but with greater emphasis placed on the formal submission of writing portfolios and national exams which can have implications for teachers current teaching practices (Gallagher & Harris, 2013). Cohen et al., (2012) support this notion by suggesting assessing talk in the classroom can be subject to teachers' values and beliefs. This has implications for what type of talk pupils are exposed to with the amount of opportunities for dialogic discourse becoming reduced as other literacy skills are given preference. A possible solution as Cohen et al., (2012) point out, is that the use of language in the classroom requires teachers to consistently reflect on and evaluate their talk strategies to support dialogic learning opportunities.

Literature Review

Over the last 40 years, research into classroom based talk has gained momentum as the importance of effective talk on learning outcomes has been made clearer (Mercer & Dawes, 2014) In their study of research into talk, with a focus on teacher-student interactions Mercer & Dawes noted that more is now known about the types and function of talk used in the classroom and the influence such talk strategies have on pupils' learning. Demand from teachers continues to grow for professional development opportunities in understanding and improving the quality of talk in the classroom (Mercer & Dawes, 2014). From a Scottish educational perspective, research into the effectiveness of talk is limited with only a few studies reporting findings about its transformative effect from within larger studies on collaborative group work (Christie et al., 2009; Day & Bryce, 2013) or as part of the Philosophy with Children approach (Cassidy & Christie, 2013). Literature searches have shown little research conducted by teachers into their own use of talk strategies with most studies reporting on the role of talk in effective interactions as findings from research with broader aims.

Talk is a fundamental tool of teaching and learning (Alexander, 2008b). Mercer (2013) develops this statement by stating that – based on Lev Vygotsky’s socio-cultural learning theory (Vygotsky, 1978) – the use of spoken language has a profound effect on individual and collective thinking. Knowledge is gained by an individual through social interactions and is influenced by cultural factors from within a community where meaning is created collaboratively (Schreiber & Valle, 2013). However, there is a large body of research, which indicates that teaching and learning in the classroom fails to use the power of talk to support the co-construction of knowledge.

The dominant talk strategy often identified is the monologic recitation model of transmissive teaching (Alexander, 2008b; Rojas-Drummond, Torreblanca, Pedraza, Vélez, & Guzmán, 2013; Shepherd, 2012). Connections have been made between this dominant form of monologic talk strategy, modelled by the teacher and a pupil’s inability to use talk effectively during group situations to support effective learning outcomes (Rojas-Drummond et al., 2013). Research into the effectiveness of group work carried out by Christie et al., (2009) and Coultas (2012) found that, whilst group work is a regular pedagogical method used in the classroom, children were observed more often of than not working individually with little or no productive dialogue being used.

Dialogue however, is considered a key element in building the skills, abilities and attitudes required of students to fulfill their potential in the globalised, multicultural and diverse world of the 21st century (Littleton & Mercer, 2013; Resnick, Michaels, & O’Connor, 2010). The current embodiment of education policy in Scotland, Curriculum for Excellence (CfE), acknowledges the role of talk as a crucial skill for children in reaching their full potential and participating effectively as citizens of its future society. The aims of the curriculum for every pupil described by the four capacities – successful learners, confident individuals, responsible citizens and effective contributors indicates the importance placed on active participation (through talk and collaboration) to foster the desired dispositions our children and young people will need to sustain a democratic society and ensure the country will continue to flourish nationally and internationally (Learning and Teaching Scotland, 2011; Scottish Executive, 2006).

However as previously noted, tension arises from the vague language used to describe the capacities with broad interpretations of their meaning possibly diluting their intended purpose (Cassidy, 2013) and with little ‘critical interrogation’ reducing their purpose to ‘broad slogans’ (Priestley 2010 p. 29). Reid (2013) also notes that the broad interpretation is not without issue as vagueness in design has brought about prescriptive teaching strategies imposed by local authorities in an attempt to support teachers. This has implications for teaching practice and for teachers becoming the ‘agents of change’ as envisioned by the authors of CfE (Priestly, 2010, p. 23).

The thread of interest throughout this introduction is the importance of talk in supporting effective teaching and learning outcomes and developing active community members able to collaborate and reach their full potential. Successful pedagogies using the right kind of talk continue to provide the impetus for further research interest in this field. Resnick et al., (2010, p. 163) remark that without talk ‘we cannot achieve full humanity or social community...without talk society withers...’

Alexander (2008b, p. 9) states that talk is a critical tool for teaching and, more importantly, argues that talk is the ‘true foundation for learning.’ Research has shown the importance of talk in both learning and the psychological development of children (Mercer & Littleton, 2007). From a socio-constructivist perspective, learning and cognitive development occur through active engagement between peers and adults within culturally significant environments (Daniels, 2008; Vygotsky, 1978; Wood, 1998; Woolfolk, Hughes, & Walkup, 2012). Vygotsky (1978) posited that the use of language is a critical element in cognitive development and fundamental to a child’s ability to learn and build new knowledge. In contrast, the seminal work of Piaget (1970) claimed talk was beneficial between

learners, however this was for the purpose of creating cognitive conflict, which benefitted the autonomous learning of the individual (Lourenço, 2012; Schreiber & Valle, 2013). The benefits of this notion of talk arise from a child's ability to reason, which Piaget considered was subject to staged maturation. Whilst both theories claim that dialogue has cognitive benefits it has been argued that Piaget's theory is limiting as the principles of staged maturation may cause educators to underestimate a child's cognitive ability (Wood, 1998).

In contrast, supporters of Vygotskyian thinking argue that his theoretical framework offers a more flexible and equitable model for research as the use of dialogue can be explored to understand how far a child can go with the guidance of a more able peer and/or adult (Goswami & Bryant, 2010). Research into how the brain develops has demonstrated the importance of language as a tool for constructing new meaning and more complex cognitive ability as a child negotiates constantly changing environments and social interactions with family, peers and teacher (Goswami & Bryant, 2010). Indeed, commenting a decade ago Goswami (2005) suggested that the brain learns from every event that therefore may have developmental implications for classroom based learning. This understanding of how the brain develops has been used to support current research based on the theoretical learning framework of Vygotsky. For example, Mercer & Howe (2012) and Mercer (2013) argue that language is a cultural and psychological tool that links intermental (social collaboration) and intramental (individual cognitive development) actions in a reciprocal relationship that advances cognitive development. Mercer's understanding firmly supports the thinking of Vygotsky in that cognitive development happens from the 'outside in' based on social and environmental circumstances whereas Piaget suggested it occurred autonomously from the 'inside out'. A crucial difference between Piaget and Vygotsky's theories (Lourenço, 2012, p. 292).

Mercer and Littleton (2007) have suggested that the classroom can become an ideal environment to support cognitive development through the use of spoken language as each child brings with them their own individual language experiences, cultures and skills. When scaffolded (Wood, 1998) by more able peers, and appropriate learning opportunities are facilitated by the teacher, a more effective learning environment can be created to support learning outcomes (Alexander, 2008a). Before discussing more effective talk strategies as supported by Alexander's Dialogic Teaching and Mercer's Exploratory Talk it is important to consider what current talk strategies dominate the classroom and their implications.

Despite the growing body of research, beginning in 1970s, highlighting the academic and social gains attributed to dialogic pedagogies, Reznitskaya & Gregory (2013) point to research that indicates the predominant mode of communication in the classroom continues to be monologic rather than dialogic. For example, research by Applebee, Langer, Nystrand and Gamoran (2003) found that students spent as little as 1.7 minutes in dialogic discourse with the class teacher in any given 60 minutes. Earlier studies by Edwards & Furlong (1978) and Stubbs (1983) found teachers used didactic approaches to control many aspects of classroom discourse with few conversation rights being granted to pupils. Whilst a range of talk strategies have been identified during specific teacher-pupil interactions over the decades, many teachers continue to use a monologic, transmissive style of pedagogy identified in the 1970s/1980s, namely the Initiate-Response-Feedback (IRF) routine of teaching, which is manifested through the teacher's use of closed questioning (Mercer & Dawes, 2014; Sinclair & Coulthard, 1975; Tharpe & Gallimore, 1988). This contrasts sharply with the amount and type of talk children do at home. In comparing a child's experience of language at school and home, Wells (1986) found that talk at home was a more complete, child-initiated and extended experience compared to the controlled, fragmented and limiting talk of teacher-initiated discourse. During classroom observations Wegerif, Mercer & Dawes (1999) identified that talk between pupils was often dispositional or was used to avoid conflict and retain group cohesion. Co-constructed talk was rarely evidenced in the resolution of disagreements.

They therefore concluded that peer interactions were not productive or supportive of educational outcomes.

More recently Nuthall (2007) elaborates on this thinking by arguing that the majority of talking in a classroom is not for educational purposes but for keeping children engaged in teacher-led activities through direct management strategies. Lefstein (2008) agrees and adds that for many teachers in urban schools the practical implications of promoting dialogic methods of teaching and learning are hindered due to the stresses of managing difficult pupil behaviours. Additional factors that prevent dialogic discourse are the undercurrents of emotional and power relations that exist and that exert their influence in every classroom. Current research by Day and Bryce (2013) may support this notion of underlying influences impacting on dialogic discourse, as they found a number of possible reasons why pupils did not wish to participate in class discussions. Shepherd (2014) also found that, in classrooms where pupils failed to participate in dialogic discourse, the role of the teacher in using closed questions to enact monologic recitation was a key factor. The role of the teacher is, therefore, significant in creating a dialogic ethos in the classroom. However, Webb (2009) has identified a gap in this research field. In studies, which focus on group work, the role of the teacher in facilitating effective participation and discussion is often not investigated. Webb concluded however that from her findings, the role of the teachers in modeling and supporting the right kind of talk had strong implications for pupil participation and academic achievement. Additionally, it should be noted that Schultz (2009) argues that active participation is not always demonstrated through dialogue and suggests the role of silence and listening is of equal importance.

Several effective talk strategies have been identified and researched over the years such as Accountable Talk (Resnick et al.2010) and Dialogic Teaching (Alexander 2008b). However, this study will focus on the use of Exploratory Talk (ET) in the classroom as it encourages a dialogic classroom climate for teacher and pupils to engage in focused, reasoned discussions which are underpinned by common principles, the 'ground rules for talk', and supports the development of language and thinking skills (Mercer & Dawes, 2008). Although the term dialogic teaching is associated with Alexander the principles of such a pedagogy have been explored by Reznitskaya & Gregory (2013) who suggest a broad definition of what dialogic teaching is from the ideas of other seminal thinkers in the field of dialogue and state –

Dialogic teaching is a pedagogical approach that involves students in the collaborative construction of meaning and is characterized by shared control over key aspects of classroom discourse. (Reznitskaya & Gregory, 2013, p. 114).

In his book *Words and Minds*, Mercer (2000) identifies three types of talk children use when working together: disputational talk, cumulative talk and exploratory talk. Since then Mercer has developed a body of research that has studied the use of talk in the classroom and is now broadly encapsulated by the term 'interthinking' (Littleton and Mercer, 2013). As with Accountable Talk and Dialogic Teaching, Exploratory Talk is shown to be educationally effective due to the critical engagement of constructing knowledge through reasoned dialogue, which is fully visible between all participants (Mercer, 2000).

The success of Exploratory Talk in the classroom environment is subject to jointly agreed 'ground rules for talk' between teacher and pupils (Edwards & Mercer, 1987). As Littleton and Mercer (2013) explain, every social situation within a given culture has its own ground rules and, more often than not, these are implicit rather than explicit. These rules however may not promote the most effective learning environment. A solution may be to make the ground rules explicit through joint participation of their creation, which supports the philosophy of current educational policy to create a more democratic and equitable society (Alexander, 2010, 2013; Learning and Teaching Scotland,

2011; Shepherd, 2014). Although Teo (2013) suggests this democratic participation is not without its issues, as conflict can occur in relation to this strategy being employed by the teacher, or by a pupil demonstrating their understanding and thinking skills.

The ideas set out in *Creating a Speaking and Listening Classroom* (Dawes, 2011) and *Talking Points* (Dawes, 2012) provide guidance on how teachers can introduce 'ground rules for talking', which is the key component of Exploratory Talk and have been used as a framework in research (Kerawalla, Petrou, & Scanlon, 2013; Knight & Mercer, 2014; Rajala, Hilppö, & Lipponen, 2012; Warwick, Mercer, & Kershner, 2013) to support and investigate effective talk in the classroom using a range of classroom resources.

Given the limited timescale and scope of this study, the use of 'ground rules for talk' will be used to make talk explicit in the classroom. The aims therefore are to understand if children's attitudes towards talk as a tool for learning are affected by the introduction of explicit ground rules and observe through whole class discussion sessions any change in teacher-pupil, pupil-pupil talk strategies and levels of participation.

Methodology

Thirty-two Primary 4 pupils (average age 8 years) from the final placement of BEd 4 class took part in this study, 18 girls and 14 boys. The whole class participated in devising 'ground rules for talk' in line with the objectives of Exploratory Talk based on research by Mercer (2000) and Dawes (2012). The merits and challenges of exploratory talk were discussed and six rules were agreed upon by whole class majority voting. Pupils were encouraged to use these 'ground rules' during general classroom dialogue and during the specific discussion sessions for nine weeks. These timetabled sessions were topic related and explored various aspects of the Viking way of life in line with the discussion activities suggested by Dawes (2012). These sessions were timetabled for approximately 30 minutes duration. The agreed rules were permanently on display in the classroom and reviewed before each 30 minute session. Direct role modeling of the rules due to the self-study aspect of the study was also carried out, where appropriate, during my teaching responsibility. The finalized rules were:

- We share our ideas and listen to each other.
- We talk one at a time and look at the speaker
- We respect each other's opinions.
- We give reasons to explain our ideas.
- If we disagree we ask 'why?'
- We try to agree in the end.

Data was collected through two methods: questionnaires and field notes. Data was collected through the use of a specifically designed paper questionnaire at the beginning and end of the study. This allowed for standardized and quantifiable data to be gathered from the whole class through the use of closed questions (Wilson & Fox, 2013). A total of five questions were devised in order to keep the questionnaire brief, easy to understand and quick to complete with appropriate language used for the target audience (Munn & Drever, 2004). The questionnaire was formulated to mirror the significant aspects of literacy as detailed in the Curriculum for Excellence Principles and Practice document (Education Scotland n.d.) which allowed for the inclusion of the study focus area 'talking' without leading pupil responses and thus retain the validity of the data (Wilson and Fox, 2013). Listening and talking are combined in the CfE principles and practice document but were split into individual response options for the purpose of the questionnaire. This allowed talking to be assessed independently of listening enabling data to be collated against both options. The questions were ordered in such a way that those, which inquired into more personal areas, were towards the end of the questionnaire as suggested by Munn & Drever (2004). A scaled response was used to answer

each question with 1 being the most important and 4 being the least important. As Munn and Drever suggest this enables ease of coding and analysis of certain views and supports attitude measurement. I facilitated the completion of the questionnaires during class time. An example question was completed first to ensure understanding of the scaled response. Each question was read allowed to support ease of understanding given the range of pupil reading ability within the class (SERA, 2005).

An open question was asked verbally at the end of the questionnaire to allow pupils to explain in their own words their view of talk. Wilson and Fox (2013) suggest this type of qualitative response provides additional rich data. Given the time and scope constraints impacting this small-scale research the questionnaire was piloted for ease of understanding informally with my own children due to them being of similar age to the participants. Given the non-experimental approach of this study and the aforementioned constraints a control group was not used, as the purpose of this study was to investigate the impact of using 'ground rules for talk' on creating a more balanced whole class dialogic ethos (Winterbottom, 2013).

Finally, reflective field notes were used to record general observations of talk strategies and participation during discussion sessions to complement the data yielded by the questionnaires (Wilson and Fox, 2013).

Findings

Pre-intervention

Analysis of the pre-intervention questionnaire data (Table 1) clearly highlights the purpose of talk as the least important element to learning. Only 3% of the pupils considered talk the most important element to learning with 22% claiming that talking was what they did the most in the classroom. Interestingly, the overall response to the question, 'what would you like to do more of in the classroom?' was only 6% for talk. The most important element to learning was considered to be listening at 63%. Writing ranked next with 25% and then reading with 9%. As expected these figures contrast significantly with the importance of talk outside the classroom. 91% of pupils claimed that talk was most important in the playground with the remaining 9% allocated to listening. Talking at home ranked at 47% with reading and writing scoring the same 22%.

Table 1. Pre-intervention survey results.

Whole Class	Read	Write	Talk	Listen
What is most important to your learning?	9%	25%	3%	63%
What do you do most of in the classroom?	9%	28%	22%	41%
What would you like to do more of in the classroom?	25%	44%	6%	25%
What do you do most of in the playground?	0%	0%	91%	9%
What do you do most of at home?	22%	9%	47%	22%

As Warwick et al. (2013) suggest, without making the purpose and rules for talk explicit, the tacit understanding and use of talk to resolve challenges and co-regulate behaviour through reason are not evident in the pre-intervention data. Observational data recorded before the intervention also supports this notion that using talk as a tool for reaching a mutual agreement is neglected in favour of games of chance such as 'Rock, Paper, Scissors'. Statements collected pre-intervention (extract 1) for this study also highlighted some of the concerns pupils had about talking, which may help, explain their less favourable attitude towards talk in the classroom.

Extract 1. Sample of pre-intervention statements

1. I don't really like working in a group because people don't really listen to each other they talk about different things.
2. I don't like working in groups because sometimes no one listens to me.
3. I don't like working in groups because when I try to talk they talk a long time and never have a chance to listen.

These findings provide an interesting insight into attitudes towards talking and listening and points to an emerging theme that talking to peers only occurs during group work sessions. This finding appears to corroborate identified negative aspects of group work, which often fail to support cognitive development and promote positive social benefits as highlighted by Christie et al., (2009) and Baines et al., (2009). The matter of who gets to talk in the classroom and the purpose of that talk is summed in one statement (see extract 2) and links to the thinking of Nuthall (2007) who posits that talking in the classroom is teacher led and for the purposes of directly managing pupils through a day's timetable.

Extract 2.

1. I don't like talking because when the teacher is giving me instructions I will know what to do. This may also offer an explanation to why only 6% of children wanted to talk more in class and 63% considered listening most important to learning. As Teo (2013) suggests dialogic exchanges are strongly influenced by the teacher-pupil relationship in the classroom, which is often non-egalitarian in nature. A fundamental shift in attitude towards the value of talk as a learning tool needs to be driven by the teacher in order to create a dialogic ethos. This may also indicate that children need to experience and observe the teacher specifically modelling dialogic episodes in order to then be able to translate this into their own interactions.

Post-Intervention

The results of the post-intervention questionnaires (Table 2) showed a marked uplift in attitude towards talk with 47% stating that talk was most important to learning - an uplift of 44% compared to pre-intervention attitudes. Interestingly only 22% thought they wanted to do more talking in the classroom, which although it is an increase of 16% from pre-intervention attitudes, may suggest that overall the children did not fully understand the value of purposeful talk to their learning.

Table 2. Post-intervention survey results.

Whole Class	Read	Write	Talk	Listen
What is most important to your learning?	6%	16%	47%	31%
What do you do most of in the classroom?	0%	28%	19%	53%
What would you like to do more of in the classroom?	41%	31%	22%	6%
What do you do most of in the playground?	0%	0%	94%	6%
What do you do most of at home?	22%	3%	63%	13%

Individual statements (see extract 3) also suggest a change in attitude as some children expressed their liking of 'rules' to ensure fair turn taking, talk as a tool to understand and support learning and the importance of showing you are listening and being listened to. Some *in situ* observations of whole class discussions identified that the children often felt uncomfortable with expressing their opinions and providing reasons for their thinking.

Extract 3.

1. I like talking in class because we all get a shot and we know everyone's listening.
2. I like talking because it helps me to understand my work because sometimes my works hard when someone talks to me I understand at school.

Change in attitude and influence on classroom ethos

Looking specifically at the aims of the study, the post intervention results suggest that attitudes towards talk can be affected by the introduction of 'ground rules' to make the purpose of talk explicit. The importance of talk in terms of learning has increased from 3% to 47% an increase of 44%, suggesting that the focus on establishing ground rules for talk has increased the children's awareness of the importance of talk as a tool for learning. Mercer and Howe (2012) state that pupils need to develop their own metacognitive understanding of the purpose and functions of talk in order to appreciate its potential as a tool for intramental and intermental development. Albeit the data shows a shift in the pupils' understanding of the importance of talk, the results still affirm both pre and post intervention that due to the monologic nature of curriculum delivery (Alexander, 2010; Mercer, 2013; Shepherd, 2014) and known teacher attitudes and beliefs (Coultras, 2012) most of the time spent in class is listening. However, it is worth noting that estimated time spent on talk decreased by 3%. There has been a significant switch in the balance of what the pupils would like to do more of in the classroom between talk and listening which may demonstrate that the pupils have understood that if talk is important to their learning then they would like to spend more time doing so. Interestingly, there seems to have also been a switch in the balance of the importance of reading and writing which I have not been able to correlate with the intervention.

Conclusions and Implications

As stated at the beginning of this study the effective use of purposeful talk as a fundamental tool for learning plays a major role in cognitive and social development. Indeed, the importance of talk is highlighted throughout the Curriculum for Excellence (CfE) framework and guidance documents as being at the 'core of thinking' and an essential element in building the desired knowledge, skills and abilities to enable children to participate effectively in society and reach their full potential in the 21st century. The results of the study clearly indicate that by making explicit 'ground rules' for purposeful talk and facilitating opportunities to practise these rules, attitudes towards talking in the classroom can be positively influenced. This is the first step in making explicit what is normally overlooked as a tacit skill and shifting the balance of classroom interactions from a monologic teacher directed model to creating a more dialogic ethos where meaning is created collaboratively. The benefits of which have been extensively reported. However, as stated by Alexander (2008b) dialogic discourse on its own within the classroom is not a panacea for active participation in co-constructed knowledge as a full repertoire of talk strategies is required in order to facilitate the delivery of a broad, general and inclusive education to all pupils.

As noted earlier the action research approach to this study supports the current thinking of the General Teaching Council for Scotland (GTCS) about practitioner enquiry which aims to ensure teaching professionals are 'agents of change' and leaders of educational improvement. Although efforts were taken to reduce threats to the validity and reliability of the data collection methods various limitations can be identified. Triangulation of data was attempted but the recorded field notes only gave a superficial account of classroom dialogue due to being affected by my own attitudes and beliefs (Wilson and Fox, 2013). In future studies a more rigorous and effective recording method such as audio or video of existing practice may ensure that all data is collected and transcribed without bias. A more targeted pilot session may prove useful in future studies to ensure the questionnaire is truly fit for purpose with all questions being relevant to the study.

Although the benefits of effective talk strategies have been widely reported the findings of which appear to have had little impact on educational policy and practice (Howe, 2014; Mercer & Howe, 2012). Lack of supported professional development, time allocation to plan and practice dialogic discourse in an already overcrowded timetable, entrenched attitudes and beliefs of teacher and pupil relationships that influence classroom practice and the challenge of tangibly assessing effective talk are some of the barriers faced by teachers in developing a more participative dialogic classroom environment. These implications currently pose significant barriers to the effective implementation of dialogic strategies and may have an impact on my own future teaching practice. However, the positive findings of this study suggest that some of these barriers can be overcome such as changing attitudes and beliefs towards talk as a tool for learning.

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FINLAY: ESTABLISHING THE GROUND RULES FOR TALK: INFLUENCING ATTITUDINAL CHANGE
TOWARDS TALK AS A TOOL FOR LEARNING

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