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CHANGING TALK AND INTERACTION FOR DIALOGIC TEACHING IN AN EARLY YEARS' LITERACY CLASSROOM

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Abstract Dialogic teaching emphasizes changes to classroom interaction to promote student participation, yet there are still few studies which investigate how this might occur in early years' literacy classrooms. This practitioner action research study focuses on one classroom teacher's journey as she implemented a range of dialogic strategies to promote student talk, aiming to create a richer learning environment in a Kindergarten and Year One elementary classroom. Changes were made over a six-month period and these were documented using a reflective journal, video and audio recordings of classroom lessons and transcript analysis of those. Classroom talk was coded according to types of interactions, and the number of interactions produced by students and the teacher. Patterns in turn-taking and language use were identified and compared over time as various strategies were implemented. As a result of changes, a more dialogic classroom environment developed providing increased opportunities for students' voices to be heard, particularly through promoting student-to-student interactions during class discussions.

Introduction

Researchers' interest in classroom talk is not a new phenomenon. Studies focusing on talk have been conducted since the 1970s (e.g. Britton, 1970, 1988; Mehan, 1979; Sinclair & Coulthard, 1975; Wells, 1986). Despite this early substantive work, the importance of valuing and promoting student talk for learning has been slow to emerge (Edwards & Westgate, 1994, p. 12). The slow emergence of understandings of the importance of student talk in classrooms has contributed to the continued dominance of teacher talk and teacher-led discussion. Many teachers take classroom talk for granted, overlooking the ways "we construct our experience, build relationships and shape our sense of the world" (Jones, Simpson, & Thwaite, 2018, p. 2) through spoken language and interaction.

Significantly, many classrooms continue to be places whereby strong constraints are placed on opportunities for students to build understandings during talk with their teachers. The importance of young children's interactions with others, in the home, has long been acknowledged (Filipi, 2009; Halliday, 1975; Wells, 1986). Influential researcher Britton (1988) stated that "it is in the course of conversational exchange that young children learn…both to listen and interpret what people say to them, and, to put into words their own messages" (p.1). This is particularly the case during early language socialization. However, classroom research documents the limits of classroom talk in the early years of schooling (Wells, 1986, 2009) when examined from the perspective of children's contributions to whole-class talk in particular (van der Veen, van der Wilt, van Kruistum, van Oers, & Michaels, 2017). This contradiction suggests that although the early years at school should provide a fertile context for engaging students in conversational exchanges for learning, there are constraints on opportunities for students to engage dialogically with their teacher and their peers in the whole-class talk setting. The action research presented in this article sought to address this issue.

The purpose of the inquiry project reported here was to investigate how changing classroom interactions in systematic ways could open a dialogic space within one teacher's Kindergarten/Year One classroom (or the first two years of formal schooling in the Australian state of New South Wales (NSW)) using open inquiry questioning about quality literature during whole-class talk. The project was conducted as part of a larger Critical Participatory Action Research study (Kemmis, McTaggart, & Nixon, 2014) addressing promotion of dialogic pedagogies in literacy lessons in primary, or elementary, school classrooms.

Literature Review

Classroom talk lies at the heart of learning, significantly influencing what and how students learn (Khong, Saito, & Gillies, 2017). Talk as it relates to pedagogical dialogues in classroom lessons has been encapsulated by key concepts or approaches such as dialogic teaching, dialogic instruction, dialogic pedagogy and dialogic inquiry. Wegerif (2019) refers to all of these as coming under the umbrella term 'dialogic education'. Although the various concepts may be unfamiliar terms to many teachers, a growing body of research rests on the fundamental notion that talk constructs meanings collaboratively, encompassing individual contributions of participants (Jones, Simpson, & Thwaite, 2018, p. 9). By interacting with others, both in the world and inside the classroom, students construct knowledge in meaningful ways as a shared endeavor for learning (Vrikki, Howe, Hennessy, & Mercer, 2019; Wegerif, 2019).

The concept of dialogic pedagogies is centered on the word dialogue, which is made up of two classical Greek words; 'dia' which means 'through' and 'logos' which means 'word' (Bohm, 1996). Together these words translate to 'through word'. According to Alro and Skovsmose (2002), dialogue is a "learning oriented conversation" (p.113) where what matters is what is talked about and the relationship between participants in the dialogue (p. 115). The necessity of addressing the relationship between participants is essential since through dialogue people learn how to think, feel and act collectively (Isaacs, 1994, p. 358).

Emotions are important since interactions that are "truly dialogic are interactions that are exploratory, tentative and invitational" (Lindfors, 1999, p. 243). Although there are varying approaches characterizing dialogic pedagogies (Wegerif, 2019), Vrikki et al. (2019, p. 86) conclude that they share the following features: teacher invitations to talk that prompt thoughtful responses, extended contributions by participants in talk, critical engagement that builds on and challenges contributions of parties to classroom talk, and efforts to reach agreement to address inconsistencies or gaps in contributions.

Many researchers propose the value of dialogue and dialogic pedagogy in classroom interactions because these enable students to experience and participate in talk that is powerful because it promotes logical thinking, active meaning-making and knowledge construction in the pursuit of learning (Edwards-Groves, Anstey, & Bull, 2014, p. 83). Teachers have a crucial role to play in the promotion and guidance of talk that will enable learning (Jones, 2017; Jones, Simpson, & Thwaite, 2018, p. 4), in particular through student-student talk where students hold each other accountable for their contributions (Davidson & Edwards-Groves, 2018). Nonetheless, it remains apparent that classroom lessons around the world remain dominated by teacher-led talk (Alexander, 2008); indeed the substantial body of research that followed on from Britton's influential work in the 1970s confirms this (Edwards-Groves & Davidson, 2017). It is troubling that this remains so, even in classrooms where teachers deliberately set out to address the predominance of their own talk but still severely constrain opportunities for students to have a stronger voice in the classroom and in their own learning (Alexander, 2008).

At its core, lesson talk is controlled and dominated by particular kinds of teacher turns. Sinclair and Coulthard (1975), linguists interested in human interactions, identified the Initiation-Response-Feedback (IRF) pattern in classroom talk. They found that interactions occurring in classroom talk were highly structured and generally unfolded (discursively) in a three-step sequence of turns:

> I - A teacher question to initiate exchange
> R - A response from a student
> F - Feedback from the teacher

This pattern of turns prioritizes a teacher's contributions as it produces two turns by the teacher in the sequence for every one produced by individual students, thus leading to the "robust finding" (Michaels, O'Connor, Hall, & Resnick, 2010, p. 47) that teachers' talk takes up two thirds of the interaction in whole-class lessons when compared to the amount of students' talk. The IRF sequence, in particular, makes interaction in the classroom different from that of everyday conversation, particularly in terms of who gets to talk the most. Teachers need support to alter their management of whole-class talk to produce dialogue with students that is more focused on students' contributions and is more productive for their learning (Jones, 2017, p. 505). This challenge is fundamental to changing practices to actively promote classrooms where students have a voice and are able to talk their way to understandings and to learn from each other and from their teachers.

Researching contexts for dialogic talk. Much of the literature focusing on dialogic pedagogies in the classroom addresses middle and upper primary or secondary classrooms

(Howe, 2014; Howe & Abedin, 2013). For example, Edwards-Groves (2003) investigated the changes to lesson talk that teachers in the middle primary years made after participating in a year-long action research study. Analysis of 48 transcribed literacy lessons from eight middle primary classrooms recorded across one year found distinctive shifts in teacher talk practices after they were supported to examine their own talk in lessons. Edwards-Groves concluded that teachers' consciousness of their own talk practices became an impetus for adjusting their lesson talk in ways that more explicitly used talk as a pedagogical tool. Furthermore, focused critical teacher self-examination supported by collaborative analytic dialogues between professionals led to more sustainable changes to teachers' talk practices (Edwards-Groves, 2000, 2008).

Snell and Lefstein (2018) examined how students, perceived by teachers to be of low ability, were managed interactionally during a dialogic intervention in Year Five and Six classrooms in one school. The study found a tension between enabling all students to participate in cognitively challenging ways, and a prevailing belief that children of low ability could not participate in classroom talk intended to be dialogic. The researchers concluded that perspectives on identity that were related to intelligence/class influenced the uptake of the intervention with consequences for school improvement. At the same time, they asserted the importance of dialogic pedagogies for supporting all students and for addressing limited expectations of those from low socio-economic backgrounds.

Van der Veen, de Mey, van Kruisten and van Oers (2017) highlight that there is still much to be understood about how dialogic classroom talk can contribute in the early years of schooling. In their intervention study, they examine the potential of a dialogic approach for developing young children's spoken communicative competence. Children in the study were aged between 3.8 years and 6.5 years. The researchers found that teachers could learn to promote more productive talk in whole-class settings and that children's oral competences benefited. The study highlighted the importance of teachers learning a specific set of talk moves that they could use.

Boyd (2014) focused on teacher researchers using empirical research and reflexive accounts of their own experiences of teaching students in early years classrooms. Analyzed video recordings found that it was not easy for teacher to engage in learning conversations that generate sustained shared thinking in formal school situations. This aligns with findings of much earlier studies (Siraj-Blatchford et al., 2003; Tizard & Hughes, 1984). Boyd's study found that although teachers become aware of the challenges of developing dialogic instruction that encompasses shared thinking, workplace pressures constrain what is possible and restrict their interactions during lessons to a focus on curriculum and assessment (Boyd, 2014). This study highlighted the ways systemic accountabilities constrained teachers' perceived capacity to find time to conduct one-on-one conversations with students.

A study by Edwards-Groves and Davidson (2017) found that teachers employing action research were able to develop classrooms that were more dialogic. They document, for example, a Year Two classroom where interactions between the teacher and her students enabled students to produce multi-unit or lengthier turns during whole class talk about a

fiction text. The teacher developed discussion around the book through the use of posing 'big questions' to students. There was evidence that students sometimes challenged the view of other students, producing interactions that showed more serious consideration of points being made (Edwards-Groves & Davidson, 2017). The information gained in the Year Two classroom establishes the need for students to competently interact with other students if talk and interaction is to shift away from the dominance of the IRF during whole-class discussion.

In the analysis that follows we seek to address the relative absence of studies that directly consider dialogic pedagogies during whole-class talk in the early years of schooling. We detail one teacher's work to consider the challenges of implementing a dialogic approach and its potential for improving language and learning in the early years through productive classroom talk (Van der Veen et al., 2017).

Methodology

The practitioner action research project reported here was part of a larger Critical Participatory Action Research (CPAR) study conducted by Edwards-Groves and Davidson (2017, 2018). The study examined the development of dialogically-focused pedagogies in primary school literacy lessons. Stibbard (the lead author in this paper) was one of 12 practitioner researchers in the study. Her project examined changes to classroom interactions in her Kindergarten/Year One grade in a small rural primary school in the state of New South Wales (NSW), Australia. Kindergarten and Year One form the first two years of formal education in the NSW education system. The school had a population of 105 students and consisted of five composite classrooms. Stibbard was teaching in her composite Kindergarten /Year One classroom of 24 students throughout the project and had more than twenty-five years of teaching experience in a range of classroom settings.

During the overall CPAR study, teachers participated in three professional development days and follow-up researcher visits led by Edwards-Groves. These were used to initially learn more about a dialogic approach to teaching and to support the development and implementation of individual action research projects. Part of this support entailed each teacher developing a theory of action (Argyris, & Schön, 1978) followed by a research question that would guide the conduct of each teacher's project. The theory of action developed by Stibbard was: If I focus on the explicit use of classroom talk as a pedagogical resource to build vocabulary then my students will have more opportunities to engage in dialogue with higher intellectual rigor. This led to the research question: How can I explicitly use pedagogical resources for classroom talk to improve and extend students' vocabularies? As a result of this research question, the ensuing over-arching action was to use high quality picture books to develop active listening and dialogue within the classroom in order to provide a platform for developing a richer vocabulary (Edwards-Groves & Davidson, 2020).

Data Collection. Three types of data were collected by Stibbard during the project. The first was the collection of video and audio recordings of classroom interactions in her lessons. Recordings were transcribed to provide verbatim transcripts and analyzed in order to gain

insights into whole class discussions, teacher-student interactions, and student-student interactions. These transcripts provided the second set of data. The analyses of transcripts were necessary for gaining insight into the particular changes which occurred over time. The third source of data was a series of written journal reflections stemming from transcript analysis and a quantitative analysis of contributions recorded in lessons. The reflections focused on the teaching, learning, and interactions occurring during classroom discussions and documented future actions.

Data Analysis. Data were analyzed over the course of the project using thematic coding and graphing to determine patterns in interactions in class discussion. These were coded in a number of ways: utterances of Kindergarten students and Year One students, instances of teacher utterances and student utterances, and the number of teacher-student interactions and student-student interactions. Transcripts provided verbatim accounts of talk that occurred during selected sequences of interaction. Teacher observations from their close examination of these transcripts and the recordings of lessons were recorded in the reflective journal and considered to inform decisions about what actions would be taken as the project developed.

The next section documents actions taken over time by Stibbard and changes that were brought about during the course of the project. These are presented to relay the journey of Stibbard's practitioner action research project and to document her learning about talk and interaction in her classroom.

Results

Change over Time and Supporting Evidence. The project began at the start of the school year with the intention of exploring quality literature through inquiry questions in the service of developing dialogic talk moves (Edwards-Groves 2014) and improving student vocabulary. In essence, changed talk moves were catalysts that led to a profound change in the dialogic nature of this classroom and a shift in the dialogic relationship between teacher and students, and between students in their student-to-student interactions.

An initial step was to make a recording of a classroom lesson (on the second day of the school year), and after a transcript was made, to make a numerical count of instances of teacher and student turns. Analysis of this data demonstrated the predominance of the three-part teacher-student-teacher interactions. These took the form of IRF sequences, established as the dominant pattern of exchange in whole-class discussion. Specifically, teacher turns were leading discussion throughout the lesson phase with the use of closed questioning that resulted in individual responses from students followed by a teacher feedback turn, often in the form of an evaluation of the previously offered student answer. The overall result was teacher-directed talk dominating the discussions which were not dialogic in nature. Figure 1 shows the graph that Stibbard developed and included in her reflective journal.
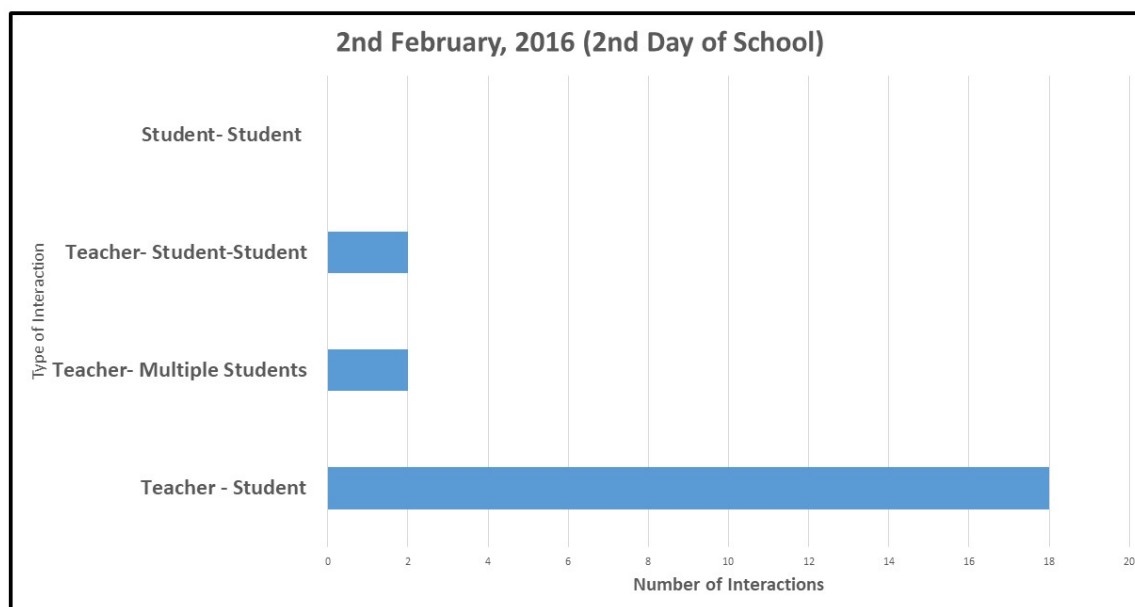
Figure 1. Number and type of interactions that occurred on the second day of school

Teacher reflections on this pattern of exchange established the predominance of teacher-student interactions and the absence of student-student interactions or extended student turns. This awareness prompted the decision to introduce changes to some aspects of classroom interaction. Some of the new strategies implemented are presented next in Table 1.

Table 1: Strategies for Promoting Student Talk

Strategy	Changes Made	Resulting Actions
Classroom seating structure	Students would sit in a circle during group discussions rather than facing the teacher at the 'front' of the room. At times the teacher also moved to sit on the floor alongside the students	Active listening among students is encouraged. When students are engaging with each other they are able to look directly at the speaker rather than more typically at the teacher
Opening the dialogic space	Elimination of the need for students to raise hands to enter the conversation	Students were able to choose (self-select) when they were able to contribute to a discussion rather than wait to be called upon or be nominated by the teacher

Piggybacking	Students were provided with a number of 'stems' to help them piggyback onto the ideas of others in order to build on their thinking and contribution	Led to an increase in student-to-student interactions during whole class discussions
Questioning	Students were provided with a number of 'stems' to help them ask questions of their classmates during the discussions in order to find out more information or to clarify a point that had been made previously	Led to more considered (deeper) thinking by the students and demonstrated a genuine need for them to understand another person's perspective
Challenge	Students were provided with a number of 'stems' to help them to respectfully challenge the ideas and opinions of others to support them realize that they can have a different opinion and to express these	Provided opportunities for some students to put alternative pints of view forward. This strategy was only used occasionally during the period of the project.

As a result of implementing these new strategies over time, changes in the patterns of interaction began to occur (presented following). The impact of implementing these strategies was recorded in a journal entry made on the 14th March (after six weeks since the beginning of the school year) where reflections addressed what had occurred with the introduction of piggybacking.

- "At first the students just added in comments and there was no evidence of attempts to piggyback onto other people's ideas. I then used the stem... I agree with Nixon about…. And a light seemed to go on in the eyes of a number of the children and I then had three or four children in a row piggyback on the last person's idea. The act of me modeling what I expected or was teaching showed the students what I wanted and as a result they were able to put this new strategy into practice."

- "Over the next couple of days, I am going to experiment with deepening the use of this strategy further with a range of texts and see if the students once they become more familiar start to build on without the need for direct modeling every time. I am still struggling with whether all these prompts are suitable for the students of this age or whether I should just reduce it to two simple prompts. I will continue to monitor this and make a decision."

- "The benefit of this strategy is that the sentence stems provide a way/ a language for students to employ a higher level of dialogue in a simple and straight forward way which also promotes the concept of listening to others."

This extract demonstrates the instructional struggles that occurred during the action research. In an effort to determine the most effective ways to implement dialogic strategies and to ensure that students were independently using these strategies during class discussions, the journal entry records both the plan, the process and the reasoning for this change. At this point in time, it was noticed (by the teacher) that the strategies were not embedded in the students' talk repertoires and still required modeling in order to remind them of ways that they could use the strategy of piggybacking to enrich the discussion. Modeling was necessary to bring about more substantial changes to the ways that students participated in whole-class talk. This foregrounded the next cycle of action.

In the subsequent phase, as various strategies were implemented and more data gathered to examine the impact of these, it was possible to determine some specific interactional changes in patterns of talk overall. One was that students slowly began to take more turns following an initial teacher turn. The increased instances of student turns at talk, in the form of multiple student responses following a teacher initiating turn, can be clearly seen in the following extract from a lesson transcript. Such transcripts were developed systematically every two weeks. The talk occurred approximately half way through the discussion. After reading the picture book, "A Nice Walk in the Jungle", students were asked to think about whether the children in the story had a nice walk in the jungle. The extract (Figure 2) shows the production of an initiating question followed by two student responses then a teacher turn, that recaps these statements, and another five student responses that followed. This demonstrates the emergence of a shift in teacher domination of talk – simply, students were taking more turns that the teacher.

Teacher: So why did the boa constrictor eat the children for dinner?

Flint: Cause he's a wild animal and he wanted his dinner right now.

Grayson: Cause he's hungry.

Teacher: So Flint said he's a wild animal and Grayson said cause he's hungry.

Nixon: When you're in the jungle you have to eat anything what you can see cause sometimes there's nothing to eat in the jungle.

John: I agree with Grayson um cause um he was hungry.

Francesca: I agree with John cause the snake ate the children.

Nixon: But the teacher didn't have a good walk because the boa constrictor ruined it because by eating all the children.

John: The boa constrictor didn't really have a nice walk or lunch because he got tied up.

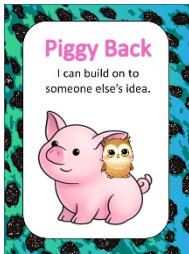**KEY**

Teacher

Kindergarten Students

Year One Students

Figure 2. Extract from transcript of classroom talk about the picture book, A Nice Walk in the Jungle.

Through developing this verbatim transcript, it was possible to notice that the students' turns showed use of language of agreement following a specific pattern ("I agree with") and also use of language to introduce a differing perspective ("But"). This appears to be directly linked to the strategies for questioning and challenging another person's thinking that the teacher was modeling. Furthermore, and importantly, the teacher initial turn did not name any specific student. The absence of teacher nomination directly connected to the strategy for "opening up the dialogic space" that was the focus of teacher action at this time in the project. This absence left open a chance for any student to self-select, or to start to talk. So, the extract (and the transcript that it was taken from) documents language that students were using to take a turn, and without being nominated by a teacher turn as was the case in talk recorded early on in the project which produced a more restricted IRF sequence.

During the project, an important realization was made by the teacher - while student contributions had increased such that more students spoke after an initial teacher turn in the discussion, students were not actually directing their comments to the student whose talk they were building on in their turn. Instead, students were looking in the direction of the teacher as they built on the talk of another student. This was an important noticing because it showed that students still appeared to be orienting to teacher talk, rather than talk by their peers, and so the decision had been made to more evidently vacate the floor by not looking directly at students, in order to encourage them to converse with each other

and not *through* the teacher. Table 2 encompasses the approach for vacating the floor through specific strategies (previously reported in Edwards-Groves & Davidson, 2017).

Table 2: Strategies for Extending Student Talk

Strategy	Changes made	Resulting Actions
Piggybacking sentence stems I agree with… I also think… I think that too because… 	Sentence stems were introduced to provide the students with a model for how to enter a discussion and how to piggyback onto the ideas of others.	As a result of using these stems, students were able to successfully enter the discussion and build on other students' ideas. The use of the stem made it obvious what the students was trying to achieve- adding on to others' ideas.
Question sentence stems I wonder… Why? How? 	Question stems were also introduced to provide the students with a model for asking questions of other students either to gather more information or to clarify information.	As a result of teaching the sentence stems, students were able to ask questions of each other. It was interesting that the questions they asked were often spontaneous and did not require the use of the set stems.
Teacher vacating the floor	Once the discussion was initiated by the teacher, she would sit and look down rather than make eye contact with students.	This demonstrated to the students that the teacher was no longer in control or in charge of the conversation. This was initially followed by a period of silence but students soon became aware that this was a cue for them to take over the conversation themselves.

Conversation monitors	Conversation monitors were introduced about halfway through the project as the transcripts indicated that some students were dominating the conversation. The conversation monitors were used so students could monitor how many contributions they were making. A maximum of six contributions was the ideal.	The teacher and the students were able to monitor the number of contributions made by each student. Students were aware that the ultimate goal was for each student to be able to contribute and have their voice heard.

As Table 2 illustrates, teacher-designed strategies were selected that could be explained to young students in their first and second years of schooling. In the case of the conversation monitors, for example, students were provided with physical resources designed to enable them to visually indicate to others that they wanted to talk and needed an invitation from another student to speak.

The next transcript extract (Figure 3) demonstrates the ability of these young 5 and 6-year-old students to interact student-to-student during classroom discussions. The discussion was recorded after the students had watched a short Pixar film called 'La Luna'. The initiating question provided in a teacher turn (not included in the extract) was 'After watching that movie I want you to have a little think …I wonder how the little boy was feeling throughout that movie?"

John: I agree with Angelina cause they were fighting over the hat what way it was going.

Valda: and the broom.

Grayson: I agree with Angelina cause um it was um hard to explain to the dad and the grandpa that the little kid he wanted it to go up like whatever way he wants it to go.

Marisey: I agree with Angelina because there um the boy was trying to give back the broom to both of them and say can I please have one from one of you and one of you keep on

Valda: I reckon he felt a little bit nervous because when he was going up the ladder he was probably thought he was going to get a little bit scared and fall off.

John: I think he was going to be happy when he just floated off the uh ladder.

Frank: I think he was a little bit frustrated because he didn't know what to do and I also think he was surprised because he didn't know if he was supposed to climb the ladder or not.

Flint: Um I agree with Grayson because you don't have to put the hat any way you can just put it the front way down.

Jaxson: I agree with Frank because I do think he felt a bit happy when he was just coming off the ladder and I think he was a little bit surprised.
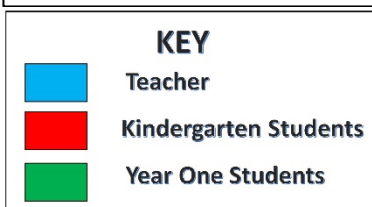
KEY
Teacher
Kindergarten Students
Year One Students

Figure 3. An extract from a discussion after watching La Luna.

Over time (three months), significant changes were evident in the overall interactions evident in whole-class talk. These show the gradual emergence, and growing importance, of other interactional sequences.
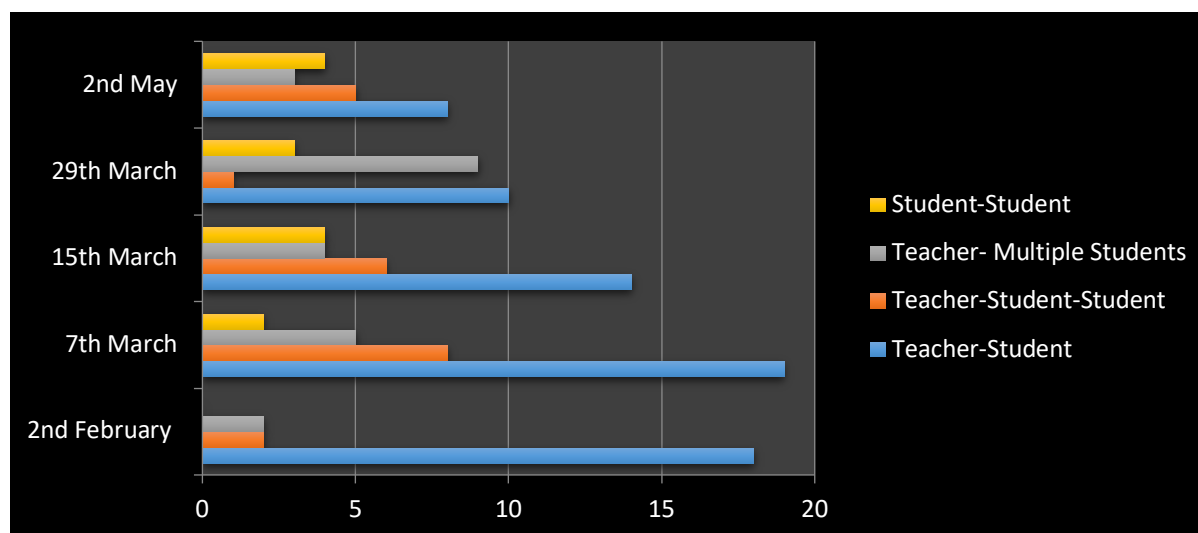

Figure 4. Change over time in types of classroom interactions.

The graph demonstrates the changing nature of interactions from the beginning of the school year until the 2nd May. This graph provided the catalyst for the observations made in the reflective journal on 2nd May:

- "There has been a noticeable drop in teacher-student-teacher interactions from the initial recording back in February. There now appears to be more balance between teacher-student and teacher-student- student as well as teacher and then multiple students' responses. This is exciting and is highlighting that by the teacher vacating the floor at points that the students can continue to generate conversation. Probably the most exciting thing that I am now observing is the student-student interaction. Which truly shows that the teacher has vacated the floor."
- "Within these conversations, the use of the strategies of piggybacking, questioning and challenging are all evident. These strategies have provided these young students with handles to use in order to enter the conversation and to demonstrate their thoughts in conversation."

In this reflection, important observations are made about the impact of the strategies being used to vacate the floor to create a more open dialogic space in the discussion. The journal entry notes the importance of these strategies for supporting young students to "enter the conversation and to demonstrate their thoughts in conversation". The next transcript in Figure 6 demonstrates the evolving nature of talk within class discussions. In this extract there is evidence of limited teacher turns as well as multiple student-to-student responses.

Teacher: So why did they give him a hat?

Grayson: probably they wanted him to be a …they wanted to be a …probably they wanted to be another little master in the boat.

Valda: He probably …they probably thought cause he…cause they had a hat on and he wants to be cool with them.

Frank: And why does he need …why does he need to be cool with them? Why?

Marisey: Why…why does he need the hat?

Valda: It's in the dark.

Teacher: Ummm. So it seems a bit strange.

Marisey: You don't need a hat in the dark. You won't get sunburnt.

Nixon: No, It's because the sun because…

Winston: The moon

Nixon: The moon is all shining and it might sunburn his eyes.

Teacher: um. Good point Nixon.

Valda: Why do you think that Nixon?

Nixon: Cause sometimes when cause the moon is real shiny and sometimes when he's moving stuff he has to look at the shine and then he might get blind because it it's real hot.

KEY

■ Teacher

■ Kindergarten Students

■ Year One Students

Figure 5. Extract from discussion after watching La Luna

The most significant element of this transcript is the phenomenon of students starting to ask questions of each other and to try to answer each other's questions. This is evident in the contributions of Frank, Marisey and Valda. For example, Valda directly asks Nixon for information about why he has made a particular comment. Furthermore, an element of challenge is added when Nixon disagrees with the other students about the need for the boy to wear a hat. He goes on to justify his assertion that the boy does require a hat even though it is night time.

Throughout her action research, Stibbard (teacher researcher) involved students actively in the change process. Specifically, she and her students spent a lot of time in lessons talking about talk and about what needed to change in classroom talk and why.

Teacher: So tell me why are we sitting like this to have our discussion?

Children: (Chorus) because

Grayson: Because we're we're ready to listen to the story and tell the story out what happened

Frank: And we're going to piggyback and we can see people's faces when they're talking so when we're

when a person's talking so when a person's talking and another person starts to talk the other person

stops talking and the other person talks the rest.

Teacher: Good point. So how many people… if we're having a ..

Flint: Um… if um..

Teacher: Just a minni…I'm talking at the moment. If we're having a discussion…..how many people can

be talking at once

Children: (Chorus) One

Teacher: So what is everyone else doing?

Valda: Quiet and listening to their ideas so they can add on to

Grayson: you can add on

Teacher: so you can add on to their idea. Tell me about…we've been learning about piggybacking..

Flint: This is what it means….it means someone says something and then you go I agree with them

Valda: I agree with them or I agree with Nevin

Teacher: So it's important to use their name

KEY

▉ Teacher

▉ Kindergarten Students

▉ Year One Students

Figure 6. Extract showing talk about talk and interaction (15 March).

This small snippet of talk provides one example of talk that addressed some of the challenges of students actually getting to have a turn in whole-class talk. On this occasion numerous students were beginning to speak at once. This prompted a teacher turn, an instructional move, to remind them of ways to conduct a conversation in a lesson. The students in subsequent turns provided the rationale for the 'one at a time' speaker routine in their turns and the need for "being quiet and listening to their ideas so they can add on to". In their responses, students also clearly articulated the importance of addressing the speaker by using their name and ways to build on to each other's turns through agreeing and disagreeing. Conversations like this enabled the development of the young students' understandings of what to do when trouble occurred in their classroom talk and these understandings were important for the students to be active participants in shaping up new courses of talk.

Discussion

Through this action research a number of significant findings emerged. One of the major findings was the ability of such young students to engage in student-to-student talk during

whole-class discussion. This concept of students talking to each other during whole-class talk challenges the view that teacher questions and evaluations are necessary to continue to drive talk over the course of literacy lessons (Freebody & Freiberg, 2001) or that teachers need to have every second turn in classroom discussions. These Kindergarten and Year One students demonstrated the capacity to engage in interactional exchanges which were supported by their teacher but did not necessarily rely on the teacher's prompts or feedback. The students demonstrated they could provide feedback to other students as well as to extend their responses, providing strong evidence of active listening between students in their interactions (Edwards-Groves & Davidson, 2020). This shift away from the traditional IRF pattern of exchange (Sinclair & Coulthard, 1975) was achieved through experimentation and practice over time by the teacher and the students.

One of the essential components of developing a dialogic space was the recognition by both teacher and students of the need to change the existing classroom structure. Changing talk practices required changing the practice arrangements (Kemmis et al., 2014). For example, it involved changing the arrangements of students in the physical space during discussions by having them sit in a circle rather than as a group facing the teacher as a strategy to open up the dialogic space. This made possible a shift in the focus of the discussion from a teacher-led and dominated discussion to having the students facing one another to support the creation of a dialogic space for talking to one another; that is, it changed the social relational arrangements of the classroom. It provided an arrangement for interactive learning that at the same time emerged from the careful and scaffolded development of dialogic strategies. For example, this was done through modeling sentence stems which could assist students in entering the discussion to piggyback on the ideas of others, to ask a question or to challenge other students' ideas. Another strategy which was employed was deliberate teacher feedback as soon as a student used one of the sentence stems to piggyback, question or challenge another student's contribution. This provided all students with immediate input focusing on effective ways of entering, engaging in and evaluating the discussion.

This study encompassed whole-class talk about the need for change and showed that students' perspectives were as integral as that of their teacher. As suggested by researchers such as Edwards-Groves (2014) and Jones (2017) among others, the power for change lies in the hands of the teacher. Therefore, it is necessary to provide support for teachers to change their practice in ways that shift away from the prevalence and over-reliance on dominant IRF exchanges towards more inclusive and participatory approaches to dialogue. This study demonstrates one way in which this shift can be achieved. Over a six-month period, through processes of participatory action research, this classroom transformed from a teacher-dominated and teacher-led environment to one in which the students' not only had a voice but were active participants in the change process itself.
For the teacher, the benefits of this research were in the process of developing and implementing the research project. One of the most beneficial elements of this process was making regular video and audio recordings of the classroom discussions. Transcribing these recordings, as the teacher researcher, allowed for detailed analysis of the interactional exchanges occurring within the classroom. This was a critical step for providing evidence for ongoing focused reflection on the phenomenon, both on the changes which were evident

and the ongoing instructional struggles experienced by the teacher-researcher. This data provided recorded evidence, and therefore the scope for making adjustments to practices in systematic ways by availing teacher researchers of material about their own practices upon which to they can make considered, deliberate and thoughtful responses to the problems experienced in their practices. There are too few accounts by teacher researchers of their detailed analysis of transcripts produced by them (Davidson & Edwards-Groves, 2020).

In any research study, there are limitations and challenges to be addressed. This research project was no different. The most significant limitation was the six-month implementation period as specified by the research deadlines of the overall CPAR study. Although the strategies employed within this classroom continued to develop, the project timeline ensured that the focus remained firmly on creating the dialogic space and monitoring its implementation along with the use of transcripts to focus reflection. Furthermore, the time limitations meant that it was not viable for the teacher researcher herself to continue to transcribe and reflect on classroom discussions on a regular systematic basis.

Conclusion

Findings show that changing talk and interaction practices in classroom discussions requires making systematic changes over time with an intentional focus on the established interaction practices teachers and students routinely engage in. These changes must be based on evidence and directly respond an analysis of the turn taking patterns identified in each teacher's own practices. Importantly, the challenges to making sustained changed to the dialogic practices presented by this project includes the continual need for refining interaction strategies to meet the needs of the particular class group and their conversational needs. These were noticed and monitored by examining the turn-taking using graphs to show who was talking and the number of different types of talk which were used. Importantly, teacher-made transcripts were critical for revealing the use of language, for highlighting the language required in next step instructional actions, for determining the interaction strategies being used by the students and for examining the impact of introduced strategies on how classroom discussions support student's participation.

In conclusion, the implementation of a range of dialogic strategies employed in a Kindergarten and Year One classroom demonstrated that it was possible to shift classroom interactions away from the rigidity of the IRF structure to more substantial sequences of interaction. The study shows the potential for young students to engage in extended and robust discussion when the existing structure of talk within the classroom is carefully altered over time to provide a space which promotes dialogue in the pursuit of students' voices being heard and their knowledge and ideas appreciated and given merit.

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