Initial understandings and perceptions of cooperative learning: a case study doctoral project

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Abstract

This PhD study examines the impact of professional development in cooperative learning (using an action research approach) on the development of early career teachers’ teaching approaches. This paper explores the results of a pre-study semi-structured interview administered to six teacher participants. The interview focuses on their initial perceptions and practices in cooperative learning with pilot interviews resulting in various changes to questions.

The focus of this paper highlights the results of initial interviews which show teachers do not use cooperative learning according to pre-set models. Teachers were not able to easily articulate what cooperative learning is, and even though they felt it benefited their students did not use it regularly. Previous research demonstrates modifications to models of cooperative learning can lead to the absence of key elements and this can reduce its effectiveness.

While cooperative learning is widely advocated in primary school education for both its social and learning benefits to students, this doctoral project has a focus on its relationship to enhancing the quality of teaching. This project intends to also contribute to educational research by enhancing our understanding of how participation in professional learning, about cooperative learning can support beginning teachers’ confidence, performance, and retention.
**Context / Introduction**

This paper explores the interview responses of six early career teachers who are part of a wider study exploring how professional development in cooperative learning and action research can assist beginning teachers to improve their use/practice of cooperative learning and the resultant impact on pedagogy. One facet of the study included a semi-structured interview at the pre-intervention stage of the study and was conducted with each teacher participant in order to determine early career teachers’ initial understandings of cooperative learning and its relationship to pedagogy (attached as appendix 1). The interview schedule was trialled with five teachers who were not participants in the study, and a number of alterations were made to order and phrasing of questions after this trial. The questions focused on teachers’ perceptions of cooperative learning and teachers’ practices when implementing cooperative learning.

**Why collaboration / cooperation?**

The research associated with collaboration and cooperative learning emphasises the importance of student relationships in student learning. It is important that we remember that,

> “Classrooms are not socially neutral places. Nonetheless, many teachers ignore the social dimensions of classroom teaching and concentrate exclusively on study tasks. Whatever the teachers’ choice of instructional method, it will exert its effects on student relationships. In turn, these relationships will exert their critical influences on students’ attitudes toward school and on the way they process learning” (Sharan & Sharan as cited in Putnam, 1997, p.34).

The social dimension of teaching is crucial with positive interpersonal relationships between teachers and students, as well as students and students, being significant in student learning. If the instructional methods, or pedagogical strategies, that teachers choose model the importance of collaboration, this will influence the students in these classrooms and the way they process learning. Collaboration is the key to developing such relationships and therefore the child’s individual capacities. The trusting relationships that are built from collaboration are crucial in the development of both the children’s emotional as well as academic development, as in a climate which is built upon supportive trust, student learning can thrive (Lovat & Toomey, 2007).

Theories of learning (Piaget, 1959; Vygotsky, 1978) have shown clearly that “children learn through, among other things, collaboration and togetherness” (Williams & Sheridan, 2006, p.

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1 Approval to conduct interviews was granted by the University of Newcastle, Australia, Human Research Ethics Committee H-394-0307
84). Additionally, the National Goals for Schooling (MCEETYA, 1999) suggest that students should develop strengths and expertise in collaboration by the time they leave school. The Adelaide Declaration on National Goals for Schooling for the Twenty-First Century (MCEETYA, 1999) states, "schooling should develop fully the talents and capacities of all students. In particular when students leave schools they should: have the capacity for, and skills to collaborate with others (1.1)." The research behind this declaration includes the need for collaboration and the importance of a 'communicative capacity' (Lovat, 2005). This communicative capacity allows students to develop the kinds of trusting relationships that allow them to explore the multitude of viewpoints in their classrooms and come to see their own "life-world as just one that needs to function in a myriad of life-worlds" (Lovat & Toomey, 2007). Collaboration is cited as an essential aspect of pedagogical quality in recent research (Williams & Sheridan, 2006) suggesting the need for teachers to ensure there are numerous collaborative learning experiences planned for their students.

Cooperative learning is a subset of collaborative learning. In cooperative learning specific skills of collaboration are taught. Cooperative learning is more appropriate for young children as they require careful and explicit teaching of social skills (Bruffee, 1984, 1995). Teachers carefully scaffold the teaching / learning experience by teaching social skills, assigning roles, and sub-tasks when using cooperative learning. Cooperative learning is a structured style of learning which involves heterogeneous groups participating face to face in clearly structured tasks with a common goal, ensuring all students participate through careful allocation of roles or sub-tasks, to ensure positive interdependence and individual accountability (Gillies & Boyle, 2006; Johnson & Johnson, 1994; Slavin, 1987). Additionally it requires time for reflection based on both task outcomes and social skills. Cooperative Learning has strong research evidence suggesting it as an effective strategy in maximising learning outcomes of all students (Gillies, 2003; Johnson & Johnson, 1994; Johnson, Johnson, & Smith, 2000; Slavin, 1995, 1996) as well as social skills development (Johnson, Johnson, & Holubec, 1990; Slavin, 1995, 1996; Stevens & Slavin, 1995).

“When children work cooperatively together, they learn to give and receive help, share their ideas and listen to other students’ perspectives, seek new ways of clarifying differences, resolving problems, and constructing new understandings and knowledge. The result is that students attain higher academic outcomes and are more motivated to achieve than they would be if they worked alone” (Gillies, 2003, p.35).

A key factor in its success is that children’s development is enhanced by participating in activities that are slightly above their level of competence with mastery occurring as a result of help from others; the idea of a zone of proximal development (Vygotsky, 1986, as cited in Williams & Sheridan, 2006) which is enhanced as students are given opportunities to teach
each other and practise in a social context. The concept of “zone of proximal development” which is explained as “the distance between a child’s actual level of development as assessed when working individually on a task and the child’s potential level of development as assessed when working in collaboration” (Vygotsky, 1978, cited in Daiute & Dalton, 1992, p.8). Interactions among students are crucial to cooperative learning and it is the interactions that occur in the groups that help to facilitate the learning (Gillies, 2002) with positive relationships occurring as students help each other and enhance thinking. Students are more likely to demonstrate the ability to provide explanations and instructions and develop implicit understanding of the needs of other group members in cooperative groups.

Despite the research as to its success, cooperative learning is underutilised in schools (Muijs & Reynolds, 2005). Teacher selection of instructional strategies which do not require students to be grouped can be explained by the “increased pressure to meet academic standards using individualized tests” (Kohn, 2001; Darling-Hammond, Ancess, & Fauk, 1995 as cited in Lopata, Miller, & Miller, 2003, p.237) causing teachers to refrain from selecting cooperative learning lessons, instead focusing on individual tasks. Additionally it appears that few teachers use this technique in a structured form with many failing to use cooperative learning according to preset structured models designed by, for example, Johnson and Johnson (1984), Slavin (1985), Aronson, Blaney, Stephen, Sikes, & Snapp (1978), whose key elements ensure that it is cooperative learning that is occurring and not just group work (Lopata et al., 2003). As a result modifications to cooperative learning have arisen and have led to the absence of the some of the key elements of cooperative learning, such as individual accountability, positive interdependence, face to face interaction and group processing needed to ensure cooperative learning is successful. These modifications, and missing key elements, have reduced its effectiveness in schools (Lopata et al., 2003).

The cooperative learning model used in this research project includes the essential elements of cooperative learning based most directly on Johnson & Johnson (1994) ‘Learning Together’ model and has been developed with other elements as suggested by other recent researchers (Gillies & Boyle, 2005; Veenman, Kenter, & Post, 2000). The lesson must be structured and planned to ensure successful cooperation.

One of the key elements the lesson should consider is the importance of the quality of instruction (Slavin, 1997) (quality of the pedagogy) in cooperative learning. Slavin's more recent 1997 model, the ‘QAIT model’, considers that it is the quality of instruction, appropriateness, incentives and time to learn that are important (Slavin, 1997). It is this new development in determining that the quality of the pedagogy is important that has particular interest for this study.
Other key elements include the need for **high social support** being necessary during all phases of the lesson. **Face to face interaction** is required in a cooperative task with students working together as a group, talking and sharing as a team. **Positive interdependence** occurs when teachers ensure that they carefully set up cooperative goal structures as group success is more likely when individual goals are met. Positive interdependence helps students to develop a sense of ‘group’ as they “recognise the need to support each others learning” (Gillies & Boyle, 2006, p. 430). It is this linking of students interdependently, where students must work together to solve a problem, contribute to discussions, share resources and promote each others learning. **Individual accountability** with each student responsible for learning all parts of the material / task, or completing and sharing their own part of a task, or having a specific role to fulfil within the task is another essential element of cooperative learning. And finally appropriate use of **small group skills** and **reflective thinking** about group functioning, with learners being encouraged to analyse and reflect on how well their group has functioned at the end of sessions is needed for successful cooperative learning. The debriefing, or reflective stage of the lesson should include briefing and debriefing to enhance reflection and further develop social skills (Blatchford, Kutnick, Baines, & Galton, 2003).

Students in a cooperative learning situation have a strong interest in each others’ learning as well as their own. Coke (2005) states that it is the group goal, achieved from positive interdependence, which requires “distributed cognition”, with the strengths of one student complementing the needs of another, “and where each increases her knowledge base…as they work together to construct new knowledge” (Coke, p.395) that ensures a successful cooperative learning task with high achievement of all students. It is therefore important to ensure cooperative learning tasks are designed carefully by the teacher so that the joint goal and the individual components of the task require each student to bring different strengths to the partnership so that the learning outcomes are strengthened and learning maximised. It is this explicit structuring, which includes necessity for individual contributions and group interdependencies, that confirms the “educational effectiveness of cooperative group work as a pedagogic practice” (Blatchford & Kutnick, 2003, p.4).

**The wider study – setting the context of the project**

**Cooperative learning and Quality Teaching**

This PhD research project clarifies the alignment, or relationship, between cooperative learning as a pedagogical strategy and the Quality Teaching model used in NSW schools. The NSW Quality Teaching (QT) model is designed with the assumption that pedagogy should be fundamentally based on promoting high levels of intellectual quality in a quality learning environment. It should also be a pedagogy that develops and makes explicit to
students the significance of their work. The QT model is currently being used in many NSW state, catholic and independent schools to guide teacher pedagogy (NSW Department of Education and Training, 2003a) and there has been no previous research conducted on how it links to cooperative learning. “There is enormous consensus that teaching quality makes a significant difference in learning” (Cochran-Smith, 2003, p.95). Current research has indicated that student learning is very much dependent on the quality of the teacher’s pedagogy (Sanders & Horn (1998) as cited in Cochran-Smith, 2003; Ingvarson, 2002; Rowe, 2003) so assisting teachers to further develop their teaching skills is important if we are to improve student outcomes (Zbar, 2003).

The focus of this study will be on examining the pedagogy of the teacher when using cooperative learning. There is also strong evidence underpinning the Quality Teaching model, (developed by Ladwig & Gore for NSW DET, 2003) as an approach to pedagogy for improving learning outcomes. This model has been developed from research in the United States on Authentic Pedagogy (Newmann, 1996) as well as the Queensland School Reform Longitudinal Study (Queensland School Reform Longitudinal Study, 2001) and it is based on the premise that it is the teacher and their pedagogies that which contribute most to improved learning outcomes for all, especially for students from disadvantaged backgrounds. Coleman (1966) stated that “a given investment in upgrading teacher quality will have the most effect on achievement in underprivileged area” (cited in Lingard, 2005, p.174) and Lingard (2005) asserts too that the “the productive pedagogies model attempted to open up the distribution of capitals through schooling to ensure that implicitly demanded cultural capital was not allowed to work in its unequal ways” (Lingard, 2005, p.174).

Professional learning and action research

This PhD research project used an action research approach to assist teachers to improve their skills in the use of cooperative learning. Action research has been used as a method of educational improvement for at least three decades as an “opportunity to learn involving collaboration, dialogue, reflection, inquiry and leadership” (Lambert, 1998 as cited in Peters, 2004, p.536). It is carried out with the main aim to develop insights and understandings to make their work more professional and improve their teaching practice (Elliott, 1991). This project supported the teachers’ collaborative efforts to introduce cooperative strategies in a collegial group situation.

The wider PhD study uses multiple methods of data collection including interview, observation and coding of lessons, reflective diaries and group discussions. Through using triangulation, that is by using various methods, sources of data and researchers (Mathison, 1988), it is expected that these various sources of data will lead to a deeper understanding of both cooperative learning and its relationship to quality teaching.
Method - The interview design

This paper explores the interview responses conducted at the beginning of the study, of these early career teachers, in order to analyse their initial understandings of cooperative learning and its relationship to good pedagogy. The same semi-structured interview schedule conducted at one of the initial meetings is also to be conducted at the end of the data collection period in the project, in order to compare responses pre and post intervention. The interview responses were categorised according to teacher reporting of frequency of use, understanding about good teaching and cooperative learning, teacher perceived advantages and disadvantages when using cooperative learning and teacher perceived advantages and disadvantages for their learners.

The semi-structured interview design was adapted from the interviews developed in a number of cooperative learning studies (Gillies & Boyle, 2006; Siegal, 2005; Veenman et al., 2000) and was administered to five participants prior to its use in the study. The trial interview questions / structure helped to determine which questions made teachers feel particularly threatened, producing defensive answers and also determined that a rewording and organisation of some questions was required. For example the initial placing of the question “What is your personal definition of cooperative learning?” seemed to intimidate teachers and it was therefore placed towards the end of the study to be asked when teachers had previously articulated their understandings of cooperative learning. The final version of the interview also included some “ice breaker questions” which were included in order to encourage the informant to relax and chat about their teaching experiences prior to the more detailed questions about cooperative learning and good teaching.

The interviews were conducted face to face at the informants’ schools after school hours. It was the intention for the interview to be conducted with each participant at the very first meeting, but a decision was made to conduct an informal meeting prior to the initial interview in order to develop rapport with the participants. All interviews were conducted prior to the intervention which provided professional learning activities in cooperative learning. Establishing trust and building rapport was important as the interview was used at the beginning of an eight month long research project, where teachers were going to be working alongside the researcher in an action research approach. Body language is important in interviewing so an attempt was made to look relaxed and to encourage further elaboration of answers with the use of “umm”…and… “good”… for example.

The decision was made to use audiotape recording and at the same time notes were taken in order to jog the interviewers mind about answers that were given that they might want to later clarify or develop a deeper understanding about. These notes proved invaluable when the
interviewer accidentally deleted half an interview from the digital recorder! During this particular interview the recorder was switched off due to an interruption and so there were two parts to the interview. One of these was deleted accidentally but the notes enabled the interviewer to remember the respondent’s answers. The interview transcription was then later sent to the respondent for verification.

The interviews were recorded with an Olympus (DS-50) digital recorder and this was then downloaded to the computer and was transcribed using transcription software. The recordings were clear and audible and very easy to transcribe with each interview lasting between about 30 minutes and 60 minutes.

**Transcription and analysis**

Transcription of the interviews took almost 4 hours for some of the interviews and was completed before any coding took place (Tesch, 1990). Transcription involves a series of theoretical and methodological problems (Kvale, 1996). Decisions involve making judgements about whether all words would be transcribed or whether a more coherent written style should be used. For my research purpose, it was decided not to include um… and ah…and laughing or giggling but just transcribe what was said as closely as possible. As the interviews were attached as external files on Nvivo, this allowed for checking of emotional aspects of the conversation if necessary during analysis. Decisions made during transcription formatting were made deliberately and are complex and consistent in order to easily navigate the text when analysing in Nvivo.

It is important to note that there is never one analysis but multiple analyses as the researcher embarks on a process of intensive reading, writing of memos, ideas, summaries, grouping or ordering or coding the words, writing about the process of coding and then reconceptualising the grouped / coded information into more meaningful units. Emerging themes that have been found from interviews have been synthesised with thematic analysis following the principles of coding associated with grounded theory (Strauss & Corbin, 1990) in order to describe the main issues identified by participants (i.e. descriptive, or open coding), to identify the links between issues raised by participants (i.e. topic or axial coding), and to propose higher order conceptualisation of the main themes which have emerged (i.e. analytic or selective coding).

In order to navigate the text, initial codes were determined by selecting chunks of text and coding them, using Nvivo, into free nodes. The next step was to try to group these free nodes into broader categories or tree nodes. In order to do this a number of models were designed to try and understand the emerging themes that were arising from the data. The following
section summarises these themes that are emerging from this initial analysis. After analysis of classroom observations, teacher reflective diaries and professional learning conversations, as well as the final semi-structured interview, these themes will continue to be reanalysed.

**Results and discussion**

**Initial understandings and perceptions of teachers**

**Teacher Frequency of use**

The early career teachers’ initial responses showed that they varied in the frequency that they used cooperative learning in their classroom with usage ranging from up to four times a week for mixed ability group tasks, to once a month.

**Understanding about good teaching**

“I guess to me good teaching is challenging students and pushing them out of their comfort zone and making them think about something” (Suzy)

“Good teaching is giving...yeah, its quality learning and an environment that’s rich in resources and I suppose things to pull from (Polly)”

“Good teaching is good management, good positive reinforcement, good content knowledge and being prepared and being the actor, like always draw your kids in” (Esther)

“Good teaching is knowing your student, knowing your student, caring. I think is, caring about your student, caring about the words that come out of your mouth, continually learning to grow and learn yourself, forever researching yourself, never, just lead by example. Show the children that you are continually wanting to learn yourself, do it in front of the children” (Jill)

“...children concentrating, but you’ll also see them smiling, you’ll also see a little bit of restlessness because that’s ok I don’t want a rigid classroom. You’ll be hearing people make mistakes, you’ll be hearing the positive feedback after that mistake I hope, yeah just seeing an overall view of the students intermingling with each other and feeling comfortable with each other...yeah just hearing discussions amongst the students and conversations, yeah and hopefully no putdowns” (Jill)

Teachers in the study recognised their own role in developing tasks which enable thinking and problem solving skills to be developed and they realised the importance of a resource rich environment to do this. The QT dimension of Quality Learning Environment (NSW Department of Education and Training, 2003b) was important in many of the respondents’ feedback, they acknowledged that students’ needs are important and social support was
necessary to encourage students to be able to risk take. If such cooperative team skills (social skills) are taught there is more likely to be increased group solidarity. In such an environment, the value of all students’ contributions leads to a classroom environment with strong mutual respect. Trusting relationships are seen as crucial in such quality learning environments (Lovat & Toomey, 2007). It is important to note that many of the comments focus on the students, not so many on the teacher and their role in terms of providing quality teaching. Many of the key components of the quality teaching model are not mentioned when discussing what they understand by good teaching. Understandings about what these teachers recognised as good teaching can be compared with analysis of the responses about what they understood about cooperative learning in order to see if there is any alignment between the two areas of understanding.

**Understanding about cooperative learning**

**Understanding about the key elements**

Despite the research evidence that using the key elements of a cooperative learning model are crucial for successful cooperative learning, there was some confusion among the teachers about some of these key elements demonstrated by the early career teachers in this study. **Face to face interaction** with students working together as a group, talking and sharing as a team as well as high social support, were elements of cooperative learning evident and understood by the six teachers. However there was an absence of understanding of such elements such as positive interdependence, where tasks are carefully set up to ensure the linking of students interdependently and where students must work together to solve a problem, contribute to discussions, share resources and promote each others learning, as well as individual accountability, with each student responsible for learning all parts of the material / task, or completing and sharing their own part of a task, or having a specific role to fulfil within the task.

Without an understanding of these two key elements, and with the resultant modification of what is considered valid cooperative learning, research has demonstrated that its effectiveness can be reduced (Lopata et al., 2003). So although the teachers understood that ‘Cooperative learning is… working as a part of a team to achieve a given outcome or goal,” they did not recognise the importance of the teacher carefully designing the task to ensure there was individual accountability with no child ‘freeloading’ on others. They were not really aware of the need to carefully design the task, to ensure that when solving a problem that individual accountability was considered in order for all to contribute.

Some understanding about the importance of positive interdependence of the group and individual accountability being necessary for cooperative group work was demonstrated by some of the teacher respondents. Polly demonstrated an understanding of the use of roles in
cooperative group work and a partial understanding that group work was different to cooperative group work.

“it's just group work, sticking them in a group to do it and it really…. Cooperative learning, it has to have, and I do remember something about it has to have everybody contributing the same, where group work necessarily does not have to…” (Polly).

She understood that the group was responsible for the outcome but did not recognise how they as a teacher can design the task so that this occurs.

“I've told them that they have to help each other because the outcome, whatever I give you depends on all of you, one child can't just do it” (Polly).

Bill and Jill demonstrated that they understood the power of group regulation,

“if you've got an individual task and one person, each person has to do one particular task, if someone doesn't feel like doing it, then you've got to be on their back and there's always two or three, 'you've got to get it finished', 'we're running out of time', 'get to work', you can’t be in three different parts of the classroom, where as in a group situation if one person is not doing the right thing you've got four other people saying 'we need you to do this get on and do it' so they're regulating each other, and that happens quite a bit” (Bill)

“because they were also being accountable by having to explain yourself and be held accountable” (Jill).

Even though they recognised the importance of small group skills, they did not, however, mention the importance of reflective thinking or about group functioning, which is necessary in cooperative learning.  Esther appeared to think that social skills development just ‘happens’, rather than understanding that the teaching of these skills is necessary,

“cooperative learning obviously helps with social participation because they're having to work together and if the teacher has clear expectations before they go into group work then the students sort of know how they are to behave and to work in that sort of social group…” (Esther)

Polly, however, understood that it is necessary to teach these social skills and cooperative group work rules explicitly,

“Well you need to teach students how to work cooperatively, how to take turns and respect other people…”(Polly)

and,

“Well, at this stage it's making sure that they're following those rules because I'm trying to teach them the rules so I can’t let them just go...”(Polly).

However, none of the teacher respondents mentioned the need to plan for reflection of these cooperative group work skills.
Josephine and Polly demonstrated an understanding of the need for some talk and a higher noise level than when completing individual work,

“It would be a buzz classroom so there would be on-task noise, and they’d be bouncing ideas off each other- like creative buzz and noise “ (Josephine).

“They’re allowed to talk but they know they have to talk about, their talk has to be about what they’re doing, so I call it on task talk. So if they’re talking about what we’re doing it’s fine” (Polly).

Polly also demonstrated an understanding of the importance of this talk to help with group decision making.

“But if one person is not agreeing with the other four or five, then that person just has to say, ‘ok well fair enough, I’ve decided this, but I need to go along with what they’re doing’” (Polly).

Understanding about group structures is demonstrated by some. Bill understood that the grouping structure, when working in cooperative learning groups, should include heterogeneous (mixed ability) groupings in order to ensure that different strengths can be drawn upon. He also recognised that cultural diversity can add to the strengths of the group.

“I’ve basically split up all the top ones, that’s the group well not the group leaders, but they’re the people who if something’s too hard to read, they’re the ones who’re going to read it to the group.” (Bill)

“If I had big cultural diversity in the room, I would also keep that in mind when doing the grouping as well, so you get the cultural mix, and it provides for all that sort of stuff.” (Bill)

For one teacher, Suzy, there was an understanding that cooperative group work lends itself to higher order thinking.

“there’s a lot of the higher order skills like analysing things or creating things that lends itself more to group work” (Suzy).

An analysis of these initial interviews demonstrates there are particular advantages that teachers recognised when they use cooperative learning in the classroom. They recognised that some of these advantages are for themselves and others for their learners. They also highlighted with particular responses that there were also a number of disadvantages when using cooperative learning in relation to themselves as teachers, and also in terms of the learners in their classes.

**Teacher perceived advantages**

**Task structure design- intellectual quality**

One of the respondents recognised that by using cooperative learning they were more able to complete open ended tasks, which in turn promoted open discussion,
“doing PMI’s and discussions, open discussion, to come out with all these different ideas, and that’s what I think’s great about collaborative learning (Jill).”

They recognised that the cooperative learning tasks that they plan are more exciting, with teachers able to plan for the more,

“interesting stuff…which they… like to palm off to the groups and see what they can come up with (Bill).”

This demonstrated an understanding of the importance of enabling student direction (NSW Department of Education and Training, 2003b). Student direction, is an element of the NSW Quality Teaching model, and is explained as when teachers allowed students in their classes to determine significant aspects of the task (NSW Department of Education and Training, 2003b). Jill recognised that her students are able to develop student direction, as she explains:

“with three or four ideas, you’ve got four minds here that’ll come up with four each and there’s a lot of brainstorming going on” (Jill).

This also recognised that Intellectual Quality can be encouraged by designing open ended tasks which encourage higher order thinking (NSW Department of Education and Training, 2003b). As Saronson says “The overarching goal of a teacher is to light intellectual fires, to make the world of learning and ideas interesting and self-propelling; that is, to engender in students the desire to know more (Saronson, 1993, p.52).

Jill claimed that the thinking involved in a good cooperative task, helps her students to be risk takers as they engage in the kind of tasks requiring higher order critical analysis.

“I am really happy with the way their thought process has changed and how open they are now to accepting a mistake and going out there and saying something, knowing that, thinking to themselves ‘oh this may not be right, I may be way off track here but I’m going to actually have a go’ and that’s the part, that’s really struck home…” (Jill)

This teacher demonstrated an understanding of the importance of the QT element of high expectations where students are encouraged to take risks as they engage in challenging tasks (NSW Department of Education and Training, 2003b). It is important to note that this teacher was more experienced at using group work at the start of the study and was in her third year of teaching, compared to the other participants who were in their first or second year of teaching.
Class management

Jill recognised how it is easier to manage the class when they are working in a group and that it is easier to focus on certain students and challenge them in such a structure.

“I find that when you have the group work it’s easier to target those children in a group than it is individually because I can be comparing the four in a group and once you get to know your students you can, you know what they’re capable of and I find that that’s, yeah in group work I find that that is good where as if they’re on their own they’re only going to a certain level, are they challenging themselves?” (Jill)

She recognised that it is easier to challenge the students when they are working in a group situation and are able to learn from each other. Esther also recognised that the students like to have their say, they want to be involved in the decision making, and that this can lead to on task behaviours.

“well obviously they’ve all got something to say, they want to be involved, they want to get their bit down, and so that will keep them on task” (Esther)

Teacher perceived disadvantages

Class management

Josephine recognised that cooperative learning tasks can serve as a distraction to her class and cause her management problems, as she stated:

“Yeah that’s right, you’ve got to be so careful who you put with who”. (Josephine)

Bill reiterated this stating:

“I would never put children that clash really badly, I would never ever put them in a group together because then the whole process breaks down and you just have to sit with one group the whole time I’ve found.” (Bill)

“I try to get them to work with different groups each time and try to separate the groups but at the same time keep in mind that there’s certain personalities that just won’t work”. (Esther)

They acknowledged the problems of putting some students together in terms of class management and that social skill development was a major consideration when considering cooperative group work. An acceptance that teachers needing to carefully plan their grouping structures in order to maximise on task behaviours was demonstrated by these teachers.

Another teacher, Jill, also established the importance of structuring groups carefully for her lessons to be successful,

“I do think so, the children need to learn social skills and to feel a sense of belonging and but like I said to you before the way the groups are structured is really, really important” (Jill).
Jill, the teacher in her third year of teaching, documented the ongoing challenge of accommodating her special needs students and the modifications she had to make as a teacher,

“I really modify things for her, but I find it really, really difficult with C…” (Jill)

She also commented favourably about how her students are beginning to adapt and modify the task themselves in order for some of these special needs students to be able to complete their components.

“I put them with K… and they modified his work down, they came to me and said you know ‘how about we do this’ and it was good. It was a really good group effort” (Jill).

Suzy commented on the physical restrictions that her classroom has causing her problems with designing cooperative group work tasks.

“because of the size of the room it’s been difficult to manipulate the furniture so that’s sort of restricted me, we did have groups sort of set up but there just wasn’t enough room” (Suzy)

**Teacher perceptions of learner advantages**

Engagement is one of the perceived positive aspects of cooperative learning that these early career teachers initially identified for their learners.

“I would expect them to be engaged with what they’ve volunteered to do and that’s simply because they’ve volunteered to do that section” (Bill).

Bill recognised how one of the key elements of cooperative learning, individual accountability, can keep students engaged and on task. Jill also recognised this, and Esther demonstrated that the group process can bring new ideas to light and keep them interested, and engaged in the task.

“They were also being accountable by having to explain yourself and be held accountable” (Jill)

“…if they were getting lost for ideas and someone goes ‘oh policeman’, ‘oh’, you know, new ideas can sort of spur on…let’s have a look” (Esther).

Bill recognised that the benefits of using cooperative learning can be to help develop student relationships. He commented how teachers can assist when student relationships are experiencing problems,

“helping them out because some had been struggling or they’re falling off the rails with their relationships.” (Bill)
One of the benefits of cooperative learning, and one of the key elements of the model as developed by Johnson and Johnson (1994) and Slavin (1987), is the use of heterogeneous grouping structures. Students need to recognise that all students in the class have strengths and that the strengths of one student should be able to complement the needs of another. By working in heterogeneous grouping structures, the use of cooperative learning assists students to recognise these strengths and needs, and helps them learn to work with all students in the classroom. Although Bill has formally stated that the does not like to group certain students together due to classroom management issues, he later recognised the importance of all students working together,

“That’s what I’m trying to push so the whole getting along, and we do a ‘you can do it’ program here which is all about resiliency and part of that is learning to get along with other people and learning to accept you can’t always get your own way. That’s a big thing for kids at this age when you get to a group work situation.” (Bill)

He goes on to state the importance of this acceptance of working with all students in the classroom,

“If they know now I’m not always going to get my own way and I’ve got to learn to work with people that I may not necessarily be friends with, it’s going to help”(Bill)

Appreciation and acceptance is another advantage that Bill recognised can result in students working in a cooperative group. Students who work in such cooperative tasks should be able “to work and interact with other people in a variety of settings and contexts…as well as …deal respectfully with people whose ideas and values differ from their own” (Cogan, Grossman, & Mei-Hui-Lui, 2000, p.51). Esther also states how cooperative learning enables her students to appreciate and accept others;

“It [cooperative learning] can definitely benefit because you’re, if you’re working with a group and you sort of, it helps you appreciate and be exposed to different, you know, cultures, religion, societies and yeah it’s like that peer thing, oh you know, I don’t do that, such and such does. So it’s sort of like a, yeah acceptance at a young age, other religions, cultures and you know, why people do it a certain way. So that’s where I think cooperative learning would definitely help which is sort of assists in becoming more tolerant” (Esther).

The sharing of opinions is seen as an advantage for the learner by Esther when working in cooperative groups,

“If you sort of set your students up, ok you’re not going to have the same opinion as everyone else, but that’s the idea, is that you accept other people’s opinions and you have your own opinion and no one’s trying to change sort of” (Esther).

Whereas this teacher has commented on how students shouldn’t feel they need to change their opinions, Jill recognised that this a strength of the group work process, and that her students can listen to others ideas and be open to change.

“you know like it’s what we watch on the television and we read in the newspapers and you’ve always got to validate everything and get a different opinion on some things and be open
to change, be open to others cultures and belief and yeah, so I think the group work is good for that” (Jill).

**Teacher perception of learner disadvantages**

Josephine and Esther state one of the main disadvantages for the learners in their classes are trying to ensure the quieter students are able to have a voice,

“Well the dominant characters in the class can take over and shut people down – they can end up taking their resources so there can be a negative affect with the dominant ones” (Josephine).

“you’ll get the more quiet ones sort of backing off and maybe not having the confidence to have their say” (Esther)

“The cooperative learning setting may for some particular students. They may not want to share their ideas because they might think, oh what if they think I’m stupid. So it could sort of hold people back if they didn’t have the confidence or the you know, to sort of put their ideas out there” (Esther)

Bill commented on how group work provides an excuse for some of his students, that some students have supported the other students who wouldn’t be able to complete the task, and that these students are then able to opt out of completing any work,

“a grouping provides a crutch for those people who can’t do it” (Bill).

Jill also stated how the group work process can cause distractions, and gives her students the opportunity to talk about non task matters.

“Well sometimes you might have, say you’ve got a group of four and two start talking about last weeks soccer and one will go ‘no guys come on can you help me do this, this bit’s hard can you open it on page blah, blah, blah,’ but it can work the other way too” (Jill).

At the same time she recognised the advantage of some students being able to bring the group back to task orientated talk.

**Conclusion**

The analysis of these initial interviews demonstrated that the early career teachers were not able to easily articulate what cooperative learning is, and even though they felt it benefited their students, they did not use it regularly. Previous research demonstrates modifications to models of cooperative learning can lead to the absence of key elements and this can reduce its effectiveness. These teachers would often use the term cooperative learning for group work and this group work did not necessarily include all the key elements to make the lesson successful. Some understood that cooperative learning was different to group work, and
needed individual accountability. They were able to see the benefits of using cooperative learning to increase student social skills but did not understand the need to both explicitly teach these skills and reflect on their use both, before, during and after the lesson. There was an understanding that these social skills would just develop.

Additionally, they understood that good teaching had some links to using cooperative learning, for example the importance of discussion, conversation, positive interactions amongst students and challenging students to think about quality tasks in a rich learning environment. Two of the teacher participants summarised their thoughts about what it is they like so much about group work as they compared group work to developing a love of learning and life-long learning,

“I want them to have a desire to learn forever and I think in, if you have a higher self esteem and you are achieving and you feel good about what you’re doing, you’ll want to do it again and you’ll want to try a different way and that develops the love of learning and that’s I think is very important and you can get that in group work” (Jill).

“I just think it’s a great skill because no matter where these kids are going to work they’re going to be thrown into small groups, it’s a skill for life” (Josephine).

While cooperative learning is widely advocated in primary school education for both its social and learning benefits to students, these teachers found it hard to articulate clearly how it could help strengthen student learning outcomes. Without teachers perceiving that there is a link between developing social skills and achieving learning outcomes when using cooperative learning, it is to be expected that cooperative learning will not be taken up as a major teaching strategy. This project will explore the results of an intervention project based on professional learning which uses action research planning, collegial feedback and professional development in cooperative learning. The project will be evaluated using observations, reflective diaries and post intervention interviews, all of which will provide data to be analysed to determine increased understanding and implementation of cooperative learning. This analysis will also seek to explore the use of cooperative learning as a means to promote quality teaching and learning using the NSW Quality Teaching model of pedagogy. It will also examine whether this professional learning approach, using action research, has provided other benefits for teacher development.
References


Appendix 1 - version 3 of interview

Semi-structured Interview instrument – pre study and post study

Teachers’ perceptions of cooperative learning and teachers’ practices in cooperative learning

Name:

General background
1. Number of years teaching
2. Number of pupils in class
3. Frequency with which you use cooperative groups

Ice breaker
4. Tell me about your room, the way you organise things, your groupings for different KLAs or activities.
5. Tell me about a lesson you’ve taught this year that was fabulous.

Defining cooperative learning
6. What are the essential elements of cooperative learning?
7. What do you believe is the teacher’s role in cooperative learning instruction? What does the teacher do – “look like, sound like, feel like”?
8. What do you believe are the student’s roles in cooperative learning lessons / activities? What do the students look like, sound like, feel like?

Understandings of teachers
What are the benefits / disadvantages of cooperative learning?

9. How can having students working in groups improve their learning outcomes? How can having students working in groups negatively affect students’ learning outcomes?
10. a. What types of social skills can improve when your students work in groups?
    b. How can social skills be negatively affected when your students work in groups?

KLA Skill development
11. a. How does the use of cooperative learning help develop skills in KLAs?
    b. How can cooperative learning hinder the development of skills in KLAs?

KLA Knowledge / understandings
12. a. How can the use of cooperative learning benefit the development of knowledge and understandings in KLAs?
b. How can the use of cooperative learning hinder the development of knowledge and understandings in KLAs?

**KLA Values and attitudes**

13.a. How can using cooperative learning help develop values and attitudes in your students?

   b. How can using cooperative learning hinder the development of values and attitudes in your students?

14.a. In what ways can using cooperative learning improve on-task behaviour?

   b. In what ways can using cooperative learning hinder on-task behaviour?

15. When using cooperative learning do you think it can increase/ decrease BST scores?

**Practice / use of cooperative learning**

16. When do you use cooperative learning? How does it fit in with what you are teaching in the classroom? How do you plan for cooperative learning lessons?

17. What are the sorts of issues you consider when forming groups?

18. What is your personal definition of cooperative learning?

19. What else would you like to add about your use of cooperative learning?

20. What do you understand about the use of cooperative learning in schools? How is it received in schools?

**Good teaching**

21. How would you define good teaching?

22. When good teaching occurs in your classroom what would I be seeing, hearing, etc

23. When you use CL does it help you do good teaching or does it make it harder?