Researching Peer Relations in a Boys' Middle School: A presentation of research design

Peter Miller (School of Education)

Abstract

This paper addresses the research design of a research undertaken towards the completion of an EdD at the University of New England. The main objective of this research is to improve my practice of intervening in and investigating incidents of poor peer relations between Year 8 boys. Investigating and intervening in incidents of poor peer relations is a significant component of my role as Head of Middle School in a large urban, independent boys' school. Working with boys, parents and staff on matters concerning student peer relations takes a great deal of time and effort. Quality of outcome and efficiency of management in dealing with incidents of poor peer relations are important to the boys, parents and teachers because of the level of distress these incidents can cause for the boys and detract from their opportunities to learn at school. A justification of the constructivist research paradigm, action research multi-method and data analysis will be presented.

Research Background

This research was conceptualised with the objective to improve the quality of the learning environment for Middle School students in an independent urban boys' school. There is a clear link between this objective and *Quality learning environment* which is one of the three dimensions recognised in the NSW Department of Education and Training's Quality Teaching model (2003). This model recognises 'a high quality learning environment has its own independent effect on the quality of work students are able to do' (NSW Department of Education & Training 2003:7). Ongoing improvements in understanding and management of peer relations issues amongst students are desirable in an effort to improve the quality of the learning environment at my school.

There has been a great deal of recent research and many practical suggestions made on dealing with bullying in schools by Rigby (Rigby 2003; 2003a; 2003b; Rigby Smith et al 2004; Rigby 2007), McGrath and Noble (2006) developing the pioneering work of Olweus (1993). These authors are just three amongst many who have contributed to the large literature background to this research project and the issue of bullying at school.

I was both the researcher and Head of Middle School in this action research project. The two positions complimenting each other because the Head of Middle School is expected to lead initiatives to improve the quality of the learning environment for Middle School students. In this context, it was appropriate for me to undertake an investigation of peer relations issues and management especially with a view to improving practice related to investigating and intervening in reported incidents of poor peer relations.

Research Paradigm

This research utilised multiple realities (a relativist ontology), the co-creation of understandings by the researcher and respondent (a subjectivist epistemology) as well as naturalistic methodological procedures. The research is firmly placed in a constructivist paradigm (Denzin & Lincoln 2000:21). Guba and Lincoln (1989) outline the basis of the belief systems of conventional and constructivist paradigms. Consistent with this approach, the nature of my position at the school and within the research meant it was not possible for me to undertake this research in a way that conformed to the objective demands of conventional paradigm. Data were collected from participants as part of a true-to-life case study with significant implications for the research environment and its future. The influence of my values to the inquiry, my research methodology and a relativist ontology are all recognised to be characteristic of a constructivist paradigm (Guba & Lincoln 1989:83-90).

I concur with the constructivist view of knowledge where 'a process of discovery underpins the research enterprise [and] meaning is described, interpreted and constructed through the eyes of the researcher or the participants in the investigation' (Gerber 2000:18). The purpose of my research was to deepen my understanding of the student experiences at my school and to assist in the ongoing development of strategies to improve the quality of the experience of boys in the Middle School. This meant the investigation had to be prepared to respond to the needs of the participants and the research environment.

Research Questions

The research questions for this project were:

1. What is the existing situation of peer relations in Year 8?

2. How can my practice be improved to better manage incidents of poor peer relations in Year 8?

Design

This research design was a case study. The research was undertaken in an Australian urban independent school in which I am the Head of Middle School. The case school is a boys' only Middle School comprising three year groups of approximately 200 students in Years 7, 8 and 9.

Methodology

This project was a multi-method action research case study combining data collected over a thirteen month period.

Given my position action research was considered to be the most appropriate approach for this project. The data generated as a result of this research was fed back to the school community to inform the stakeholders about the progress made in recent years as well as to assist in the planning for future improvements in teacher practice at the case school. Two parent seminars (where a total of 270 parents attended), a staff training day with Heads of House (teachers with the key pastoral responsibilities in the Middle School) and information to boys in Year group meetings and assemblies illustrate the participative nature of this action research.

The complexity and reality of practice demanded a mixture of quantitative and qualitative tools to investigate the research questions. Throughout the research I

maintained a high degree of 'openness' (Gerber 2000:23) and methodological objectivity by 'doing justice to the object of the research; being without dogmatic theoretical viewpoints or technical incompetence; and, focusing consciously on one part of the world' (Gerber 2000:23). This was best achieved by undertaking research using a multi-method approach as it is more easily able to meet the needs of the stakeholders and the research environment.

Gerber (2000:29) cites Brewer and Hunter (1989:36-38) as a source supporting the use of a multi-method approach recognising the increased feasibility of verifying and validating theories. A multi-method approach fits comfortably with an action research approach as qualitative and quantitative data are closely connected to the normal mode of operation of a teacher in professional practice. For example, monitoring the progress of a student would involve the use of quantitative information such as attendance records, 'Effort Grade' averages on Semester Reports and detention records in conjunction with qualitative information, such as teacher feedback using email, conversations between colleagues as well as information obtained at parent and student interviews. This combination of qualitative and quantitative information related to a student's performance is an important medium to track pupil progress over time and to construct a greater understanding of their situation. It is only when this is understood by a teacher that effective strategies can be implemented to support a student. The strategies undertaken are reviewed over time and reconsidered for their effectiveness with changes being made, as required. The typical procedure of collecting information on student progress was logically extended to a multi-method approach in this research project as the data required is closely associated with the behaviour of Middle School boys.

Within the action research framework of Kemmis and McTaggart (2000) the first research question of this project acts as a situation analysis upon which the second question is addressed through improvement oriented actions. A plethora of literature exists that has developed my understanding of action research (Schon 1995; Wadsworth 1997; Stringer 1999; Greenwood & Levin 2000; Kemmis & McTaggart 2000; Newman 2000; Smith 2001; Stringer 2004). In general, action research responds to the needs of specific context in which improvement is an imperative. Kemmis and McTaggart (2000) provide a detailed review of a number of variants of action research. They state:

> Action research takes a variety of forms. It is not a unitary approach. In our view, its evolution has owed more to the press of the contexts in which it has been practised than to the working out of some set of problems immanent in action research understood as a research method. (Kemmis & McTaggart 2000:593)

Research by Greenwood and Levin (2000) on action research as social research reinforce the importance of this context. This is explained in their definition of action research as:

> Research in which the validity and value of research results are tested through collaborative insider-professional researcher knowledge generation and application processes in projects of social change that aim to increase fairness, wellness, and self-determination. (Greenwood & Levin 2000:94)

This definition is aligned with my research questions and my core motivation to improve the quality of the learning environment in the Middle School. The action research method can achieve this by working toward a fair environment with greater

self determination for students through improving the interventions in and investigations of poor peer relations incidents.

The process of action research is generally explained as a 'spiral' (Wadsworth 1998; Stringer 1999; Kemmis & McTaggart 2000; Smith 2001; Maxwell 2003; Stringer 2003). Common elements in the literature are the inclusive nature of action research and a sense of action research being undertaken in the real educational contexts. These common elements are described by Maxwell (2003:3) as 'the process remains connected to the situation and the initiator of action research will sometimes (perhaps preferably) draw those involved in that situation into the action research process'. The process may be owned as well as managed by the participants but it is generally understood to involve an ongoing non-linear cycle of planning, implementation, evaluation/reflection and re-planning. This spiral was recognised as being distinctive to action research by Lewin (cited in Smith 2001) in its earliest stages in the 1940s and it has continued to be the defining element of an action research approach. A process described in this way may have no clear conclusion. In fact, it is apparent there is no requirement for the process to end even though the action researcher may choose to end it. There is a clear assumption practice can be improved and it is always evolving in a dynamic context. In this case, action research can go on revisiting central questions over time and devising new context-appropriate actions. The key to each of these descriptions is the action research process is a process of systematic inquiry to provide new knowledge and understanding enabling improved practices (Stringer 2004:13).

The adoption of an action research process sits comfortably with teachers as it is closely aligned to normal practice and has been recognised by teachers as of great value (Seider & Lemma 2004). However, the need for greater rigor and depth through the systematic collection and analysis of data over time presents the greatest challenge to teachers as action researchers. The action research model of this type provides a protocol for teachers to investigate issues in their schools and a mechanism for bringing about positive change.

In conclusion, a conventional research tradition is recognised as seeing itself as 'proceeding from point A to point B along a straight line – commencing with a hypothesis and proceeding to a conclusion which may then be published in a journal' (Wadsworth 1998). This conventional approach is less desirable for this research project because of my goal to improve professional practice *in situ* as an outcome and in the course of the research project. The action research process described in this section sits comfortably with the constructivist paradigm within which the research questions are framed. More importantly, action research which includes reconnaissance as integral to the process allows data to be generated to address the research question. Action research is 'derived from a research tradition emphasising cyclical, dynamic, and collaborative approaches to investigation' (Stringer 2004:13). This process provided the most suitable means to research peer relations and to facilitate improvement in a school.

Collection of data

The multi-method approach used in this action research demands qualitative and quantitative data of certain kinds. Ethics clearance to undertake this research was obtained in October 2005 with the commencement of data collection in November 2005.

Quantitative tools

Peer Relations Assessment (PRA) - The PRA is a sixteen part questionnaire constructed by Professor Ken Rigby of the University of South Australia. It has had extensive use throughout Australia since 1997. The PRA is used to measure the nature and extent of bullying in schools. 50 000 respondents in all states of Australia have enabled some norms to be developed.

The PRA was distributed twice in the course of the action research cycle. The two occasions were to boys and parents of the Year 7 2005 cohort in Term 4 2005 and again in Term 4 2006 when the same cohort of boys were at the end of Year 8. The parent questionnaire was mailed out to them, whilst the students completed their questionnaire at school. A total of 367 student responses and 255 parent responses were included in the data. The number of questionnaire participants shown in Table 1 where indicates high student and parent participation.

Table 1 – PRA Participation

	Students		Parents	
Group	Number	Participation	Number	Participation
Year 7 2005	182	91%	134	67%
Year 8 2006	185	92.5%	121	60.5%
TOTAL	367		255	

All student participants completed the questionnaire in a twenty minute period at the same time during the school day. Questionnaire completion was overseen by a member of the teaching staff who would normally be responsible for the boys in that time slot. Upon completion, the questionnaires were returned to me for analysis. Questionnaire data were tabulated using tabulation tables provided in the PRA package purchased from Professor Rigby with descriptive statistics used in the analysis.

In October 2005 and 2006, the parents were notified in writing of the intention to distribute the PRA to the boys. The students were given direct notification of the questionnaire by me in the Middle School Assembly held on the Friday of the week immediately before the questionnaire was distributed. The notification was very explicit about the connection between the questionnaire, my research, my ethical responsibilities and doctoral studies at UNE. The boys and parents were told there was no obligation to participate, there was no penalty for non participation and they could withdraw voluntarily at any time.

The parents were individually invited in writing to participate in the PRA. Parents received a cover letter, a copy of the parent version of the PRA and an addressed reply paid envelope to mail the completed questionnaire. The cover letter provided details of the reasons for the research, Human Ethic Research Committee approval number and UNE contact details for use in the event of concerns about the research.

The PRA was used in this research because it is an established instrument, externally constructed, accompanied by norms and included both parents and students. It was also straight forward to administer. The data directly addresses the peer relations issues of this research. Issues arising from it were explored further in focus groups.

Peer Relations Incident Tally Sheet (P.R.I.T.S.) - This was a tally of incidents reported to me in my role as Head of Middle School over the five term period commencing in October 2005, concluding at the end of November 2006. The period of time covered a full year, but five school terms, and both questionnaire distribution dates. The information recorded included the date of the incident, the Year group of the students involved, the location of the problem/incident, the source of my information (parent, student, teacher or member of the public), repeat event or first time incident and the course of action taken. No information was recorded that could identify an individual or their involvement in an incident.

This record of reported incidents provided data used for reflection on and a clearer picture of the nature of incidents reported to me as the Head of Middle School. These data provide an important basis for understanding the realities of my dealings with incidents of poor peer relations amongst Middle School boys. The data recorded were not limited to Year 8 as I felt a bigger picture of my intervention in peer relations incidents needed to be painted to better understand the significance of the issue for Year 8 boys. The recording of data of this kind also enabled a check between perceptions of frequency of action and course of action and the realities.

Qualitative tools

Reflective journal - A journal recording reflections on school policies and practices in operation and my own practice was kept. Entries were made at irregular intervals but at an average of three entries every two weeks across the research period. The journal recorded reflections on my thoughts, aspects of my conversations with staff, boys and parents as well as key points of influential readings in the course of the action research cycle. In addition to a place for recording action and reflections, the journal became the site of the synthesis of ideas and planning ahead. In general, the journal entries record the processes towards the progress made in developing practice.

The journal has been a key component of this action research project enabling writing to be a method of inquiry as described by Richardson (2000) resulting in improved thoughts and understandings of actions, readings and general experiences. The journal allows reflection-on-action, reflection-in-action and reflection-for-action (Schon 1995). Journal entries were regularly reviewed, cross referenced and placed within a wider context of thought and professional practice.

Interviews - A total of eight staff semi-structured taped interviews averaging thirty minutes duration were undertaken in this project. Four Heads of House and the Senior Counsellor were interviewed in Term 1 2006. The purpose was to have staff share their reflections on changes to practice they have noticed since the development of the current anti-bullying policy. Another three Heads of House were interviewed in October 2006 near the end of the action research cycle, to reflect on their practice and the impact of changes discussed in the course of the action research cycle.

Interviews were digitally recorded onto a laptop computer and later transcribed. After some early external assistance with transcribing the interviews I completed all of the transcriptions myself. This process assisted in further familiarising me with the interview data and preliminary analysis.

The Heads of House have the principle responsibility for pastoral care for Middle School boys. As a result, they regularly deal with incidents of problems in peer

relations. I also work very closely with the School Counsellors on matters of student welfare. The views and practices of Heads of House and counsellors needed to be well understood by me in this research. Additionally, I needed to provide an opportunity for them to participate in this research in a personal way. Stringer (2003:64) asserts that interviews:

> are the principal means by which we are able to hear the voice of the other and to incorporate their perspective in the inquiry process. The interview process, however, also provides opportunities for participants to revisit and reflect on events in their lives, and in the process, to extend their understanding of their own experience (Stringer 2003:64).

Staff interviews served to explore the issues of dealing with peer relations with key staff, encourage them to reflect on their practice and engage them in the action research project. The information obtained in the interviews assisted the actions taken to improve interventions to incidents of poor peer relations.

Focus Groups - Two student focus groups of twelve boys in Year 8 2006 were used in this project. Focus group participants were chosen at random when the boys were in Year 7 2005. Both focus groups met on four occasions for 45 minutes each during the four school terms commencing in Term 4 2005 until Term 3 2006. The focus group conversations where digitally recorded onto a laptop computer and later transcribed. A letter of invitation was mailed to the participants' parents at the start of each term in which the meeting was to be held so they would be aware of the extension of their son's time at school on that day. The smallest focus group involved six participants and the largest was twelve with an average attendance of eight.

In a Middle School assembly immediately before the first focus group meeting I addressed the whole of the Middle School about the focus groups, their purpose and connections to my research. This meant the research was openly discussed by me amongst boys, parents and staff in formal forums and informal conversations, either individually or in small groups. This had the added benefit of encouraging discussion and awareness amongst the school community that peer relations issues and bullying were issues that the school took seriously and wanted to deal with.

The scope of the research meant that two focus groups over four terms were appropriate. The longitudinal nature of the contact with each focus group allowed me to ascertain changes in peer relations and associated issues over time for the two groups. The practical aspects of time and scheduling the meetings amongst other commitments had an impact on the number of focus groups and the frequency of meeting. Time was a constraining factor on the scheduling of focus group meetings. Stringer (2003:76) emphasizes the time and place of the meetings must be conducive to the process. Due to school co-curricular commitments on weekday afternoons, Friday afternoon was the best time to schedule meetings. In addition to this, considering variations in term length while wanting to maintain an equal opportunity for the boys to participate all combined to result in two focus groups for this research project.

Focus groups are well supported and widely used by qualitative researchers. They are recognised to be useful as a means to providing rich data (Fontana & Frey 2000:652) and 'provide insight into the range and depth of opinions, ideas, and beliefs about a research topic, rather than providing information about the number of people who hold a particular view' (St John 1999:420).

Focus groups provide a forum for open discussion of issues arising from data gathered elsewhere in this research while engaging a large numbers of people in research, develop ideas and enable individuals to explore their experiences (Stringer 2003:76). Finally, 'they gain increased clarity and understanding of […] issues and develop the productive personal relationships so important to the effective enactment of action research' (Stringer 2003:78-9). Focus groups 'are used to gain a clear view of the thinking, language and reality of the participants' world' (Morgan & Krueger 1993 cited in St John 1999:420). The nature of the peer relations means it is important for the boys' realities to be heard and understood for effective interventions to be devised. I felt that focus groups were the most suitable way to achieve this outcome.

Fontana and Frey (2000:652) state 'the results cannot be generalised; the emerging group culture may interfere with individual expression, and the group may be dominated by one person; and *groupthink* is possible outcome'. In response to this problem, two focus groups were used. This served the benefit of overcoming "groupthink" in one session. Two groups provided a check and balance on each other especially in the event of a dominant view expressed by a domineering participant. The reality was that this was not a problem in either of the focus groups in any session.

Focus groups were used by me in preference to individual student interviews for two reasons. First, given my position at the school, I felt the presence of a group might make the participants more at ease and allow for a more natural conversation on peer relations. Second, individual interviews are very time consuming and logistically difficult in a busy student schedule. Focus groups enabled the participation of a larger number of student participants in this research with minimal disruption to their pre-standing school or personal commitments.

Analytical Tools

Qualitative data - The focus group and interview transcripts were initially analysed individually and manually in the course of the study to obtain data and to monitor actions. I undertook a preliminary manual analysis of interviews and focus group transcripts by summarising main discussion points as soon as typing of transcripts was complete. At the time of writing this paper the transcripts are yet to be fully analysed. It is my intention to use *Leximancer* software to enable a more comprehensive analysis of these data. I am only just becoming familiar with the software but at this early stage *Leximancer* appears to be the most desirable text analysis software to use because it can analyse large quantities of text and a number of documents simultaneously to produce an analysis of content. The opportunity to quickly analyse all eight focus groups simultaneously is very attractive, especially now the initial action research cycle has concluded and I am planning for the next phase of action.

Quantitative data - Descriptive statistics have been used for data analysis of the PRA data, P.R.I.T.S. data and journal entry analysis. The norms for the PRA are also presented in this way, enabling comparison.

Descriptive statistics are recognised to be limited to the data at hand and do not involve any inferences or potential for generalisation (Walsh 1990:3). Their use in this research is appropriate because of the research design with data and research questions particular to this case study. The generalisation of findings is not an objective of this research project so inferential statistics are not appropriate in this project.

Conclusion

This paper has outlined a research design for a research project completed towards the fulfilment of requirements for the completion of an EdD at the University of New England. Consistent with the research questions for this study an action research case study employed a multi-method approach to enable an investigation of the complex realities of Year 8 boys' peer relations. This information has been used to inform improvements to intervening in and investigating incidents of poor Year 8 peer relations. The research outcomes are part of an ongoing effort to establish and maintain a Quality Learning Environment for the Middle School students.

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