

Rethinking the relationship between Classroom Research and Educational Practice: The ERUDITE research case studies in Teaching, Learning and Inclusion

Adrienne Alton-Lee

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New Zealand educational reform has placed much weight on the school as a unit and on school choice as a strategy to improve education. Recent international reviews of research on educational change have emphasized the critical roles of the teacher and teacher education in student achievement (Cuttance, 1998; Greenwald, Hedges & Laine, 1996). In commenting on U.S. policy in 1998 a past president of the American Educational Research Association pointed out:

'...the school reform movement has ignored the obvious: What teachers know and can do makes the crucial difference in what children learn... Policies can only improve schools if the people in them are armed with the knowledge, skills and supports they need. Student learning ... will improve only when we focus our efforts on improving teaching.'

Darling-Hammond, 1998, p. 12)

The ERUDITE [Educational Research Underpinning Development in Teacher Education] Programme has been designed to contribute to teacher knowledge and educational development through collaborative research case studies. This overview article provides background information about the ERUDITE Programme and illustrates the research using excerpts from the case studies.

These case study excerpts illustrate critical incidents in classrooms that pose significant questions for teachers about student learning and well-being. I focus in particular on the collaborative methodological developments that are enabling the ERUDITE findings to be accessible to, and useful for, teachers. These developments are: the 'filterwheel methodology', the 'interrupted narrative' approach, the use of the research case study and the use of theory as a tool for teachers rather than generalizability and prescription.

Background to the ERUDITE Programme

The ERUDITE Programme has been possible because of a \$300,000 grant given in 1996 by Pub Charity Trustees for research assistance and technical equipment to carry out a series of classroom research studies over three years. Pub Charity Trustees have contributed to the programme not only in their financial contribution but also in their requirement that the research be useful for teachers and have demonstrably positive outcomes for children.

The proposal put to Pub Charity was for a programme of studies that used the design and methodology originally developed in my doctoral thesis and further developed in collaboration with Professor Graham Nuthall in the Understanding Learning and



Adrienne Alton-Lee
Director
Understanding Learning and Teaching Institute
Wellington South

Teaching Project at the University of Canterbury (Alton-Lee & Nuthall, 1992; Nuthall & Alton-Lee, 1993). That project involved the use of mounted cameras in the classroom, broadcast microphones worn by students, and extensive pre and post-unit interviews and tests to trace the links between student learning and their moment by moment experiences of curriculum (e.g. Alton-Lee, Nuthall & Patrick, 1993; Nuthall & Alton-Lee, 1995). The ERUDITE Programme uses an additional mobile camera focussed on the teacher. The recordings from this camera assist us to identify the links between critical incidents for student learning and a teacher's actions and management of curriculum. Avid cinema software has been used to enable us to generate from the video records, still photographs of activities in the classroom at any moment during the unit. Given the intensive data gathering procedures of the ERUDITE studies we developed, in collaboration with the teachers involved, a set of seven guiding ethical principles and negotiated practices over and above those required by the New Zealand Association for Research in Education. These principles guided our use of the broadcast microphones and involved (1) minimal disruption, (2) respect for privacy, (3) transparency of process, (4) student choice and agency in interview procedures, (5) educational benefits to students, (6) research contribution to the school, and (7) collaborative research focus on educational development (see Alton-Lee, 1999).

The ERUDITE Programme comprises a series of case studies generated from studies of student learning in social studies in primary and secondary classrooms. The first ERUDITE study (Roadrunner) focussed on new entrant learning from a unit entitled *'Christmas in Hospital'* taught by Lena Klenner. The second ERUDITE study in progress (Kereru) focuses on fourth form student learning from a unit: *'How and why people seek to gain and maintain social justice and*

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human rights' taught by Maeve Stevenson. Although the links between social studies curriculum and pedagogy are integral to the research, teacher feedback has affirmed our perception that the principles of effective teaching apparent in the case studies have relevance across curricular areas.

What is distinctive about the ERUDITE Programme is the interlinking of research, teacher education, educational practice and theory through research case studies (Alton-Lee, 1998). The research team for Roadrunner comprises new entrant teacher, Lena Klenner, and teacher educator/researchers Cathy Diggins, Elaine Vine, Shane Town, Ngaio Dalton and Adrienne Alton-Lee. Lena Klenner was exploring through action research the use of 'Thinking Books' pedagogy (Swan & White, 1994) that she had encountered in a university¹ teacher education upgrading programme. The 'Thinking Book' approach involves children in an ongoing written dialogue with their teacher about their learning. The children record in their individual 'Thinking Books' what they have learned, how their new learning links to their prior experiences and knowledge, and questions they have about what they are learning. The 'Thinking Books' promote children's reflection on their learning and their use of metacognitive or 'learning to learn' skills. Lena Klenner encouraged the children to draw their ideas and she used extensive conferencing as she adapted the 'Thinking Books' approach for her new entrant children. In the upgrading course Lena Klenner also encountered doctoral research

carried out by Christine Rietveld at the University of Canterbury on the inclusion of students with Down Syndrome (Rietveld, 1993; 1994; 1996; in press; in progress). Because that research deeply influenced Lena Klenner's practice, the research collaboration was extended to include Christine Rietveld and to acknowledge the significance of her work (Alton-Lee, Rietveld, Klenner, Dalton, Diggins & Town, forthcoming).

The Roadrunner study has generated a series of articles and case studies (Alton-Lee, Diggins, Klenner, Vine & Dalton, forthcoming; Vine, 1998; Vine & Alton-Lee, forthcoming). These articles are informed also by recent research on teaching and classroom management:

'Research on classroom management suggests that effective managers approach management as a process of establishing an effective learning environment rather than emphasizing their roles as disciplinarians.'

Brophy (1996, p.2)

The Roadrunner teacher chose her pseudonym², 'Ms Nikora, for the research case studies. The research case studies explore the ways in which Ms Nikora was effective in managing learning, and creating a safe, inclusive environment, for students with diverse experiences and needs. For example: Holly whose mother had died shortly before the unit began; Brian, who had never been to a hospital; Fa'afetai, who was a new immigrant from Western Samoa; Huhana, whose experience and knowledge of hospital provided an invaluable resource for other students; Caitlin, who taunted her peers, and Zack, whose wheelchair became a focal resource for the unit. The students' names are pseudonyms for the research.

The 'Interrupted Narrative'

We have developed the 'interrupted narrative' format to report the findings in such a way

that teachers can become involved in an exploration of the implications of the research for their own contexts. Within the research case studies we provide accounts of critical incidents in the classroom activities that posed a dilemma for the teacher, but then we interrupt the narrative. We invite the teacher/reader or audience to predict what the teacher might do in response to the dilemma. We ask the reader to reflect upon what they might have done in that situation or what they think would have been an effective response and why, before we go on to present what the teachers actually did. Our purpose is threefold. First, we use prediction to engage the reader more directly in reflection upon the interplay between theory and practice by sharing their explanations and theories of teaching in action. Second, the interpolation of an interrupted narrative highlights the use of theoretical tools in equipping teachers to draw upon a range of creative strategies appropriate to particular contexts. Third, the interrupted narrative technique encourages and focuses debate about the nature of effective teacher intervention. While we have selected these case studies because of the evidence that the strategies used were effective and for their power to illuminate effective practice for educators, we wish to avoid the trap of prescription. Rather we wish to emphasize the theoretical tools that enable teachers to adapt what they learn for their own teaching contexts.

The use of the research case study with the interrupted narrative format enables us to re/present the complexity of actual classroom practice. Detailed descriptions of such incidents within their immediate classroom context enable teachers to explore the multiple influences on any classroom event. The research case studies highlight the complexity of the moment-by-moment decision making required of teachers. We attempt to illustrate the ways in which teacher structuring of curriculum and task

design, management of learning and pedagogical practice mediate the indirect impact of teacher action on individual students. In particular, we can highlight the ways in which teacher actions mediate peer culture and affect individual learners.

To illustrate the 'interrupted narrative' technique we present two critical incidents from the Roadrunner study and interrupt each narrative.

"We invite the teacher/reader or audience to predict what the teacher might do in response to the dilemma. "

Incident 1: Caitlin and Zack

The new entrant students in the Roadrunner study were asked to record (through drawing and writing) what they had learned about spina bifida in their 'Thinking books'. Peer helper, nine year old Zack, was working with the children at their table. New entrant Caitlin who was sitting alongside Zack at a table had not recorded anything in her 'Thinking book' ostensibly because there were no

pencils in the container at the table. When Caitlin announced earlier that there were not enough pencils at the table Holly gave hers to Zack and retrieved an extra one from a container at another table. Caitlin made no perceptible effort to find a pencil. Zack had turned away from Caitlin, demonstrating parts of his wheelchair for another new entrant student, Fa'afetai, at Ms Nikora's instigation. Ms Nikora has focused Fa'afetai's attention on the wheelchair and Caitlin who had overheard the conversation called out.

Day 1, Task 19, 13. 58'00"

Caitlin *"Zack gets around in a wheelchair!"* (giggles)

[Caitlin takes the handle of the wheelchair and starts pushing. Zack puts the brake on and reorients the wheelchair away from Caitlin as he returns to a conversation he is engaged in with Fa'afetai and Ms Nikora.]

Day 1, Task 20, 14.01'45"

[Caitlin has not worked on Task 19 so has not yet begun her task. Other students have finished and are now moving to play with blocks or read books]

Caitlin to Zack *"I said*



Figure 1 .

Zack casts his eyes when hearing Caitlin's comment before turning away from her and looking towards Ms Nikora and Ellis. Caitlin is not visible in the video still

'Where's the pencil?' I'm getting angry."

Caitlin to Zack "Hurry up! I'm getting angry" (laughs).

Day 1, Task 20, 14.03'00"

Caitlin to Zack "I know why you're a bit smaller"

Zack to Caitlin "Cause I'm in a chair."

Caitlin to Zack "No, because you're in a wheelchair."

Zack to Caitlin "That's what I meant."

Day 1, Task 20, 14.03'45"

Caitlin to Zack (whispers in Zack's ear with her hand across her mouth) "Spina bifida, boy. Hee hee."

Day 1, Task 20, 14.03'58"

Caitlin to Zack (calls out softly) Hey, spina bifida, boy!
[Ms Nikora overheard Caitlin's comments to Zack.]

Interrupting the Narrative

At this point in the full case study, the narrative is interrupted. Teachers are invited to predict what Ms Nikora should or could do and explain why. In the full case study (Alton-Lee, Rietveld, Klenner, Dalton, Diggins & Town, forthcoming) we explore 'Ms Nikora's response to Caitlin and the range of curricular and pedagogical strategies she used to address the incident and wider issues of inclusion and safety in relation to disability. We trace the ways in which 'Ms Nikora' was able to use theory as a tool in her unit planning and pedagogical practice. We illustrate from interview data and our records of the unit in action the ways in which Lena Klenner drew upon a theoretical framework distinguishing a social constructionist model of inclusion with a personal tragedy approach to disability offered by Christine Rietveld's earlier work. We use evidence from the new entrant children's work, talk and interview data to explore the effectiveness of Lena Klenner's approach. In the full presentation of the case study we develop a theoretical analysis of the

curricular and pedagogical strategies Lena Klenner used to support inclusion. The purpose of the theoretical analysis is to provide specific tools for other teachers to use, adapt and develop in their own planning and teaching.

Incident 2: Huhana

Huhana had had a fall on the slide in the playground and injured her arm. The new entrant children had witnessed her departure to hospital and her return to class with a cast on her arm. Ms Nikora planned to use Huhana's experience as a resource for the whole class. Before the lesson, Ms Nikora had individually negotiated with Huhana, that she would talk about her experience of hospital after she broke her arm. At 10.22" 21' well into the first day of the unit study the children were sitting on the mat facing the teacher. Ms Nikora began by asking the children to remember the incident of Huhana's accident that was part of their shared history as a class:

"The research case study format makes transparent the complexity of classroom practice and provides teachers with a focus for shared discussion and exploration of principles underpinning their own pedagogical practice."

10.22.00

Ms Nikora: "Hands up if you remember when Huhana had her accident in the playground."

Huhana: "Monique does."

Ms Nikora: "Monique does. Ok, Huhana, would you like to tell us about what happened when you went into the hospital. Was it like what happened in the book?"

{Ms Nikora has picked up the book and is tapping it}

Huhana: "A bit."

Ms Nikora: "Would you like to come up here and talk to the kids about it?"

[Huhana looks down and shakes her head (indicating that she would not like to 'come up and talk to the kids about it')].

Interrupting the Narrative

At this point in the full case study, the narrative is interrupted. Teachers are invited to predict what Ms Nikora might have done and explain the kinds of strategies they would have used in that context (Alton-Lee, Diggins, Klenner, Vine & Dalton, forthcoming). We then present three and a half minutes of the subsequent transcript of the class session and develop a discussion about the implications of Huhana's and the teacher's actions. We explore issues of teacher expectations, social and academic risk, teacher management of potential student-teacher confrontations, teacher support for student safety, and teacher use of wait-time and prompts. This discussion focuses on teacher management of the learning for diverse learners within the whole class context. The discussion includes consideration of issues of participation, safety, well-being and learning for Holly and Brian whose different experiences were mentioned previously in this article. Again we use evidence from the students' work, talk and interviews to explore the implications of Ms Nikora's approach.

The research case study format makes transparent the complexity of classroom practice and provides teachers with a focus for shared discussion and exploration of principles underpinning their own pedagogical practice. The focus on theory and principles assists us in our aim to emphasize the creative nature of teaching practice. However, we also explore the differences in perceptions of classroom incidents that different people bring to their readings of the transcripts and their classroom or research practice. A methodological development that enables us not only to explore but also to exploit

different perspectives to enrich the exploration of the research case study is the use of 'filterwheel methodology'.

Filterwheel Methodology

The term 'filterwheel methodology' was coined by Adrienne Alton-Lee and Cathy Diggins and is described further in Alton-Lee (1999). The filter wheel is used in research in astronomy to gain information using a camera wheel that has multiple lenses, each focused on a different aspect or dimension of the focus of study. For us, the metaphor represents the different disciplinary tools, perspectives, frames and experiences each of the research team brings to our search for understanding and the link between our experiences and our particular view. The research is enriched by the advantage that is gained by using the multiple lenses to build multi-dimensional perspectives on classroom processes. The filterwheel methodology enables us to exploit the 'productive conflict' of collaboration (Hafernik, Messerschmitt & Vandrick, 1997). We aim to deepen our understandings of educational practice through an explicitly interdisciplinary collaboration. Amongst other perspectives, Cathy Diggins brings a focus on the use of space and visual information in classrooms, Elaine Vine brings her knowledge as an applied linguist, Shane Town brings his expertise on theories of masculinity and difference, Ngaio Dalton brings her experience as a new entrant teacher, Lena Klenner brings her experience with the children and her perspective on the interface between teacher planning and educational practice, and so on. As each of us join the collaboration on the meaning of what happened in the classroom, the differences in our interpretations constitute a valued resource.

Whilst we explore the differences in our 'readings' and understandings, each interpretation has to be carefully evaluated against the multiple sources of evidence our data provides. Where there are alternative 'readings' supported by the data, we offer the alternatives within the case study. For example, our data supports the 'reading' of



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Huhana's reluctance to speak as shy behaviour but also supports a contrasting interpretation that she did not consider the other children to be sufficiently attentive for her to tell her story.

The over-riding methodological constraint on our analysis is that the explanations should be developed in relation to their implications for teacher action thereby linking theory and practice. To this end each of the research team is also an experienced teacher. When the research case studies are used in teacher professional development we intend that the principles underpinning the filterwheel methodology extend into the discussion that the interrupted narrative is designed to generate. When teachers take on the filterwheel approach, the research case studies can genuinely reflect the complexity and multiplicity of classroom practice and support critical reflection on practice. The

research case studies also offer insights about the implications of teacher actions that are rarely accessible to teachers in the context of their everyday work.

Kennedy (1997) reviewed the value of educational research for classroom practice. She pointed out that the kind of research teachers find useful is research that informs them conceptually rather than prescribes action. Such research enables teachers to invent and adapt insights for their own contexts. We were surprised when six secondary teachers elected to join a national trial of the first Roadrunner new entrant case study because they found the theoretical principles to be illuminating for their own teaching even though the student age levels were so far apart. Through extending our collaboration across primary and secondary contexts in the

Kereru study we hope to develop further the potential of the filterwheel methodology for supporting professional reflection and dialogue. Such collaborative work has the potential to develop both educational theory and educational practice.

Endnote

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Cathy Diggins is now a lecturer in early childhood teacher education at the Open Polytechnic of New Zealand, Dr Shane Town is now a senior lecturer in teacher education at Massey University (Wellington Campus) and Dr Elaine Vine is a

senior lecturer in the School of Linguistics and Applied Language Studies at Victoria. Enquiries about the ERUDITE Programme: c/o Dr Adrienne Alton-Lee, Director, ULTI, PO Box 7049, Wellington South.

Fax 04 3841351, Phone 04 3841350 or e-mail Adrienne.Alton-Lee@ulti.ac.nz



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¹ Lena Klenner was enrolled in the Victoria University teacher education courses, EDUC 252 *Social Contexts of Learning* and EDUC 352 *Theory into practice*. After two years only of implementation, and a three-fold increase in teachers electing to do the courses, the teacher education programmes at Victoria were disestablished. The decision was made in response to a Ministry of Education policy change that effected the shortening to three years of pre-service primary teacher preparation in New Zealand. Victoria University made the decision to discontinue the in-service courses and the ERUDITE Programme at Victoria also.

² 'Ms Nikora' has taught in a range of schools since the Roadrunner study was carried out. The use of her pseudonym previously achieved the confidentiality that we wished to maintain for all the research participants. However, subsequent articles have been co-authored with Lena Klenner and I identify her in this overview article by name to ensure that her professional expertise and contribution are acknowledged.

