

Deakin Research Online

This is the published version:

Evans, Terry, Guy, Richard, Honan, Eileen, Paraide, Patricia and Muspratt, Sandy 2010, Reflections on conducting educational research projects in Papua New Guinea, *Journal of research and reflections in education*, vol. 4, no. 2, pp. 72-89.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30033081>

Reproduced with the kind permission of the copyright owner.

Copyright : 2010, University of Education

Reflections on Conducting Educational Research Projects in Papua New Guinea

Terry Evans, Richard Guy, Eileen Honan,
Patricia Paraide & Sandy Muspratt

Abstract: This article discusses how work on an AusAID-funded impact study of major elementary school reforms influenced the research design of a subsequent Australian Development Research Award project investigating the development of sustainable professional learning communities for primary school teachers in remote places of PNG. The authors reflect on how their different backgrounds, roles, experiences and expertise influenced the design and conduct of the projects and, in particular, how the experiences of the action research and survey methods used on the first project shaped the design of the second. The participating elementary school teachers were encouraged, through action research approaches, to develop self-reflexive attitudes to their professional work, and to engage in critical reflection of their roles and practices. Accordingly, this article adopts a self-reflexive position towards the authors' work as academics and researchers as they endeavoured to produce methodologies that are academically rigorous, contextually suitable, and epistemologically appropriate for PNG.

Keywords: international collaborative research, teachers' professional development, action research, conducting surveys in remote regions

Introduction

Papua New Guinea (PNG), a nation of 6.5 million people, gained independence in 1975 and was formed from diverse groups speaking over 850 languages, with an array of cultural traditions formed over centuries in often remote and isolated communities. Australia has played a significant part in PNG's development but, as is almost inevitable with colonisation, 'developments' have degraded and devalued Indigenous knowledge, languages and cultures. Education is an essential component of PNG's development, and schooling aims to provide both the foundation upon which to build a future globally competitive society, and also knowledge about the local, traditional languages and cultures.

The authors have participated in Australian Government funded research in PNG, with a focus on these educational reforms. The team has developed projects to work successfully with PNG's geography, demography, social and cultural contexts, economic position, and variable infrastructure while at the same time the Australian participants have encountered their colonial legacy. The first of these projects in 2004–2006 was an impact study of the PNG Curriculum Reform Implementation Project (CRIP) funded by the Australian Government through AusAID. The second, during 2009–2012, is an AusAID Australian Development Research Award (ADRA) project investigating strategies to sustain professional learning communities for teachers in remote primary schools.

This article examines the methodological, research design and ethical choices from the first study that became influential in the design of the second study. All these choices were made within the context of working in a cross-cultural research team of academics from Australia and researchers in PNG.

The background to the research projects

Education reform in Papua New Guinea

A major reform of the PNG education system commenced in 1993 with the introduction of elementary schools for Prep to Elementary 2 pupils, with corresponding new curricula, teacher training and infrastructure. Elementary schools are required to teach children in and about their local language, provide them with culturally specific numeracy and literacy skills and teach important elements of their community's culture and traditions. This reform is about valuing, respecting and sustaining diverse local languages and cultures: things that globalization sweeps aside. Primary schools span Grades 3 to 8 and make the transition to learning in and about English (a language of government and business in PNG). Secondary schools cover Grades 9 to 12 and teach in English. Ideally, a future citizen of PNG, who completes Grade 12 in secondary school successfully, should be conversant with their local language and culture, and be equipped to work in an economy and world that mediates its activities in English.

Curriculum Reform Implementation Project—Impact Study 6

AusAID provided significant Australian support for the educational reforms

through CRIP (see, <http://www.pngcurriculumreform.ac.pg/>). To assess CRIP's impact, six impact studies were conducted. This article reports on selected aspects of Impact Study 6 (IS6), which focused on the reforms on elementary education. IS6 was conducted by the authors with Longamel Moi Kippel, Medi Reta and Pani Tawaiyole between September 2004 and October 2006 and culminated in a Final Report (Evans et al, 2006) to the Australian and PNG Governments. The views expressed here are those of the authors and not necessarily those of the Australian or PNG Governments.

As part of CRIP, elementary education specialists within the PNG Curriculum Development

Division (CDD) undertook the design and development of curriculum materials that were distributed to about one thousand elementary schools. The new elementary curriculum consists of three areas: cultural mathematics; language; and culture and community. The language of the materials is English, but they are designed to reflect and use local language, knowledge and culture.

IS6 investigated the impact of the curriculum development process, its dissemination, and the associated professional development on elementary schooling. It investigated the impact of the reform on the schools and their teachers, and considered the views of other significant participants, including senior education officials in both national and provincial centres and community members. The research captured the experiences and views of people throughout PNG, many of whom lived and worked in very remote area, and the diversity of experiences and backgrounds of the teachers, and of their exposure to the reform.

Australian Development Research Award project: Identifying strategies to sustain professional learning communities for teachers in remote primary schools in Papua New Guinea

The ADRA national competitive research grant scheme is a pillar of the AusAID Development Research Strategy and funds research that informs policy development and increases knowledge around development issues. The 2008 ADRA scheme (for 2009+ funding) identified nine themes: Development Effectiveness, Disability, Economics, Education, Environment, Food Security, Gender, Governance and State Building, and Health. The present project addresses the 'reaching the disadvantaged' sub-theme of the

Education component of ADRA. The research questions for the current project (due to be completed in mid-2012) are:

- What are the major needs and catalysts of professional learning for teachers in remote primary schools in PNG?
- What models and strategies derived from action research are successful for building, sustaining, and monitoring professional learning communities of teachers in remote primary schools in PNG?
- What are the key policy and operational directions to build and sustain successful professional learning communities of teachers in remote primary schools in PNG?
- What models and policy directions are potentially worthwhile in other developing nations to build and sustain professional learning communities for teachers in remote schools?

Improving the outcomes of school students is dependent on the quality of the teachers, and this quality is continuously evaluated and improved through reflective practice and lifelong professional learning that is embedded in teachers' professional contexts (Alton-Lee, 2003; Darling-Hammond, 2000; Fullan, 2005). Arguably, the remoteness of some schools in PNG is amongst the most taxing in the world. Therefore, providing professional learning for teachers is prohibitively difficult using traditional face-to-face approaches and problematic using distance education. Strategies and approaches need to be local and organic, that address teachers' professional needs in their daily practice, and improve their students' learning. Research conducted by PNG's National Research Institute (NRI) supported the early efforts of the Department of Education (DoE) to develop school-based professional development based on local clusters of schools. Consequently, the Teacher In-service Plan (TIP) adopted by DoE in 2006 strengthened school clusters for professional development throughout PNG.

The ADRA project investigates and develops strategies derived from action research methods for building, sustaining, and monitoring of professional learning communities in remote areas. The assumption is that the quality of PNG teachers can be improved through professional learning models that meet the needs of local schools and

their contexts; that is, models that do not rely on external funding or resources, and that are adaptable to the geographical, social and economic constraints.

The ADRA project was significantly influenced by the design, implementation, and findings of the IS6 project. Perhaps most importantly, these influences were also mediated by the team members and their interpersonal, institutional and methodological connections to each other. As the Australians have learned, in PNG one always begins with the story of who you are and where you are from, so Papua New Guineans can place you in relation to their own lives and histories. In the following section we therefore provide a description of the connections between members of the teams, and how our separate interests and expertise became embedded in the research designs for both projects.

Building the Teams for the Projects

Interpersonal connections that influenced the make-up of the IS6 team included Terry's friendship with Richard that began during Richard's postgraduate studies at Deakin in the 1980s, Eileen and Sandy's de facto relationship that unfolded in Goroka in 1990, and Eileen's friendship with Patricia that commenced when both were working for the DoE in 1999-2000 and continued when Patricia studied for her PhD at Deakin with Eileen.

These interpersonal connections were interwoven with institutional connections. The IS6 team comprised senior (Terry), early career (Eileen) and part-time (Sandy) academics, a doctoral candidate (Patricia) and graduate (Richard) from Deakin University. During tendering for the IS6 project both Patricia and Richard were researchers at NRI. AusAID required that tenders involve collaboration between Australian and PNG research partners. The relationship that began through Patricia and Richard's individual studies at Deakin developed into an institutional partnership between Deakin and NRI.

There were also methodological connections between the team members that influenced the IS6 design. Patricia and Richard had contributed to some of the previous five CRIP impact studies and other AusAID projects conducted with NRI. They brought considerable expertise and knowledge that influenced the research methods. For example,

Richard had used action research methods in his PhD and other projects in PNG and advised on the potential for the IS6 tender. Terry and Eileen were also interested in participatory research methods and had prior experience with case-study approaches in large research projects. Sandy's experience on large projects using quantitative methods with mixed methods research designs also helped the IS6 research design evolve into one that deployed different theoretical and methodological approaches that extended beyond simple triangulation.

These relationships also helped determine team membership and roles in the new ADRA project. Institutional connections changed as Eileen and Sandy left Deakin University for The University of Queensland. Richard left NRI to work on major development projects in PNG. Interpersonal connections shifted as well: Terry took over supervision of Patricia's doctoral studies, and Eileen's academic experiences increased so that Terry suggested that she lead the ADRA proposal. Furthermore, the work on the IS6 project yielded a combined sense of professional respect and collegiality. In recalling the negotiations that led to the formation of the IS6 team Patricia noted the importance of this relationship in cross-cultural collaborations in suggesting that for NRI:

...the Deakin team was the best out of all the others who also showed an interest in teaming up with us for that particular project, because I knew the Deakin team's strengths. Most importantly, it was because I knew that the Deakin team respected Papua New Guineans... I had established the respect and friendship with (Eileen) and Sandy while (they) were in PNG and I got to know Terry during my PhD studies so I knew we would work well as a team. I feel this is important for collaborative research because the team is able to share views freely and, as a result, the reports written reflect a balanced PNG and outside perspective on education issues.

The expertise of the NRI members (for the design and initial implementation of the ADRA project Patricia was joined by Arnold Kukari, then later Medi Reta, who worked on the IS6 project, replaced him) suggested their leadership for particular aspects for the ADRA project. For example, as for IS6, the implementation of the action research component is their responsibility and, although the methods and design were influenced by Eileen and Terry's expertise, decisions about how to use such methods and designs in PNG are made by Patricia and Medi. The development of the survey instrument is a

collaborative effort led by Sandy, and the analysis of the data will be his responsibility.

The methods included in the ADRA projects' research design are influenced by our methodological connections and expertise, and also by the implementation and findings of the IS6 project. In the next section we describe how the issues related to research design and methods of IS6 affected the ADRA project.

Methodology: The Survey

Matters related to the development, distribution and response to the IS6 survey influenced the ADRA survey design. An aim of the IS6 survey was to gather data on teachers' perceptions of the *quality* of the new curriculum materials. The literature suggested that there are two important characteristics of quality curricula: it fits its purpose, and meets teachers' needs and wants (Ashenden, Blackburn, Hannan & White, 1984; Chapman & Aspin, 1997; Learning Federation, 2002; VCAA, 2004).

The literature, drawn from Anglophone nations such as Australia, the USA and the UK, did not reveal what counts as quality curriculum in nations such as PNG. There was a lack of research into the quality of educational reform curricula supported by aid programs. Arguably, curricula may be assessed for quality in global terms, but one may assert that the particular contexts of curriculum implementation affect its quality. This lack of accounts of quality curriculum in PNG, or in similar nations, led us to draw on the most generic criteria in the literature. When claims were made about generalisable characteristics that relate to all curricula, rather than about one particular set of curriculum documents, then those characteristics were used.

For the ADRA project, we again found the literature lacking, this time in relation to professional learning models used in PNG. We drew on contemporary understandings of the factors contributing to sustaining professional learning communities in educational contexts (Aubusson, 2006; Cochran-Smith & Zeichner, 2005), and from contemporary research that provides evidence of the relationship between the development of such learning communities and the improvement of students' learning (Dinham, 2007; DuFour, 2004; Holloway, 2006; Ingvarson, 2005). However, overwhelmingly the research reported was conducted in Western countries, or within other countries by researchers trained in the Western tradition. One of the aims of

the ADRA project is, therefore, to examine critically the factors that have been outlined in the literature (Kincheloe, 2003; Saunders & Goldenberg, 2005; Schön, 1983; Sparks, 2002; van Kraayenoord, Honan E, & Moni, 2007) as essential to the development and sustainability of a professional learning community.

We are careful not to assume that findings from research conducted within Western contexts can be replicated or applied within countries like PNG. In the IS6 project, partly from Western experience, we began with a number of assumptions about the survey respondents that did not always hold true. For example, PNG elementary teachers were more responsive to surveys than we expected from our experience of their Australian counterparts. Such assumptions were first disrupted during the trialling of the survey in four schools located in Port Moresby. Members of the research team visited these schools and asked teachers to complete the survey. The main purpose of the trial was not so much to collect information from teachers, but to ensure that the questions were intelligible to teachers, and to commence an exploratory analysis of teachers' perceptions, attitudes and beliefs concerning quality and effectiveness. That is, the trial provided answers to the questions: 'Does the survey work?' and 'Are assumptions made during the development of the survey met?'

Elementary teachers are selected for their knowledge of the community in which they teach rather than on their academic abilities. As with most of the PNG population, they may use three or more languages: English is often the third. Hence, it was assumed that some teachers might experience difficulties with English in the survey. To moderate such difficulties and to enable common understandings, teachers were encouraged to collaborate on completing the trial survey. The research team members responded to questions asked about the survey, interpreted the survey questions, and occasionally translated the questions into *Tok Pisin* (a lingua franca).

The method of administering the survey thus became quite different from that normally used by quantitative researchers. The sessions took on the appearance and quality of a professional development opportunity for teachers. Because of the research team's participation in these visits, they also involved formal introductions, special prayers giving thanks for the research visits, and afternoon teas. Our assumption that the teachers would find the survey an imposition was contradicted by their expressions of gratitude for involving them.

We expected that logistical difficulties associated with PNG's geography and poor infrastructure would result in a low response rate, especially given that the response rates to such surveys in Australia were usually low. However, we reported that: 'More than half the teachers in the provinces, representing more than half the schools, responded to one or the other or both surveys, and indeed, in some provinces, the response rates were 70% or more' (Evans, et al, 2006, p. 14). This is significantly higher than is usually expected for large-scale surveys. The final survey was distributed and collected across eight provinces and NRI's expertise proved to be beneficial to the process. NRI staff used many methods to encourage teachers to complete and return the surveys: using their existing networks in provincial education; phoning provincial centres to monitor survey distribution; organising announcements on the radio (these *toksaves* are commonly used to inform teachers and other public servants); and visiting schools and district centres when they were in provinces conducting other research.

These experiences of the distribution of the IS6 survey will be important for the ADRA survey. The ADRA project focuses only on two provinces, East Sepik and Western, but they contain some of the most isolated and remote regions of PNG and often have poor communications. The ADRA survey was not formally trialled, but the lessons learned from the IS6 survey in relation to the English language capabilities of PNG teachers have been taken into account. However, PNG primary school teachers have a higher standard of schooling than elementary teachers, and have had either two or three years of teacher training in teachers' colleges, all of which is conducted in English. Once again, the participation of Papua New Guinean researchers in the project is invaluable. They have commented on various drafts of the ADRA survey about language use, and consulted with colleagues and teachers about the use of particular terms and the structuring of particular questions.

These differences between the educational qualifications and experiences of elementary and primary teachers affect the action research element of the ADRA project. The next section describes the redevelopment and realignment of this element.

Methodology: Action Research

In the IS6 project, a total of 31 schools across eight provinces and NCD were

involved as site-studies. During three visits to each school, the researchers undertook interviews with key people, observed classroom lessons, talked to community members and attended community meetings. Also research team members worked with schools to conduct action research projects. Teachers were asked to identify a problem, collect and analyse appropriate data, formulate an action plan to solve the problem, implement the action plan and then collect data on its outcomes, and then write a report on the problem and how it was solved or otherwise. About 135 teachers participated in the action research, with varying degrees of success, over approximately eighteen months.

Readers familiar with action research methods and other participatory research will recognise the basic elements of the action research cycle and the teacher-as-researcher model while also identifying the limited recursivity and critical reflection. The IS6 action research approach was derived from exemplars used previously in PNG (Guy, 1994) and Australia (Honan, 2003) and derived from the substantial body of research on action research (McNiff & others, 1996; Kemmis & McTaggart, 1988). Substantial modifications were made to take account of the specific context. These included the elementary teachers' levels of education, their knowledge and experiences of writing English, and the difficulties in developing working relations between the schools and the NRI research team members located in Port Moresby and who could visit each school only three times.

The important lessons from the IS6 action research relate more to the successes than the problems encountered. In the ADRA project we believed that action research models had the best chance of sustainability professional learning, especially given the geographical and economic constraints, and the cultural and linguistic diversity that renders centralized and generic models highly problematic. We stripped action research down to its basic elements to present to remote primary teachers. This has resulted in four stages: identify a problem; propose ways to solve that problem; implement and monitor these solutions; and write about what was done and discovered. The IS6 project shed valuable light on each of these four stages, and we have embedded this experience in the ADRA research design.

In the IS6 project we noted that elementary teachers and school communities found it difficult to gauge the boundaries within which teachers' work can or should be located. The nature of elementary education in PNG results in permeable and shifting

boundaries between the school and the community, quite obviously a positive aspect for an education system interested in encouraging cultural and local language activities in classrooms. The hazard, however, is that teachers can perceive that they are responsible for community or systemic problems. For example, the following list provides illustrations of the problems identified and addressed in the action research component of the IS6 project. It could be argued (at least in Western terms) that some of these problems are usually addressed by community groups, education departments and policy makers.

- How can we make our mathematics lessons more interesting?
- How can we teach language more effectively in a multigrade class?
- How can we standardize Dumo spelling in our teaching texts?
- How can we increase and improve the number of students' reading materials (small books)?
- How can we improve, replace and increase the production of big and small books?
- How can we involve the community to assist with the production of big books?
- How can we improve children's class attendance in our school?
- How can we improve teacher and children absenteeism?
- How can we improve community support for the school?
- How can we improve classroom organisation to make teaching and learning more effective?

In the ADRA project we focus teachers' attention on the pedagogical matters that can be addressed within a whole school.

The lessons we learned from IS6 about teachers implementing the second and third stages of the action research model can be summarised through referring to the *Tok Pisin* expression *mipela i burukim bus*, which means, 'we made our own pathways'. Some elementary teachers used this expression to explain finding their own ways to implement the elementary curriculum. Participating in the action research projects helped the elementary teachers gain greater confidence in their abilities to solve problems themselves. This is especially important in remote locations in PNG where professional development opportunities are rare, and even the regulated visits from provincial staff, trainers and standards officers may not occur for logistic or financial reasons. For

example, as noted previously, AusAID had contributed through CRIP to the distribution of elementary curriculum materials. Unfortunately many schools, although they eventually received these materials, obtained only limited professional development support. One of the IS6 teacher's comments reflects teachers' willingness to engage with the curriculum through their own exploration.

When we first received the books, we were too scared to touch them. After attending some workshops on how to use the curriculum we were more confident in using them. We were willing to *burukim bus*, even when we did not fully understand it. Now we are happy.

This attitude underpins our planning for the research design for the ADRA project. We wanted to support and encourage this attitude through the provision of some kind of scaffolding that would assist teachers to *burukim bus*. The role of the research team in this scaffolding work cannot be underestimated, and indeed in the IS6 project many of the teachers pointed out the essential work that the research team did in providing professional development around the implementation of the new curriculum. In the ADRA project we have developed the action research model to include structure and facilitation from the NRI members of the research team who will visit the schools six times to guide them through the action research stages. This guidance will be facilitated through the use of a 'teachers' booklet' which includes notes on each stage of the action research cycle as well as pages for the teachers to write reflections, questions, and guiding notes as they work through their projects.

Our structuring of these writing tasks is a response to the difficulties encountered during the fourth stage of the action research component of the IS6 project. Most action research models include an element of written work, whether it is in the form of teachers' reflective journals, the publishing of case studies, or the recording of the results of the project. However, writing as reflection is particularly problematic for teachers in PNG, first because English is often an additional language to their home languages, and secondly Papua New Guineans are steeped in an oral tradition of *tok stori* where reflections on issues or problems are undertaken dialogically rather than in individual written form. The purpose of the written element of any action research project is to assist in the development of critical reflection skills, not the development of writing skills, so in the ADRA project we have de-emphasised the writing and focused instead on

the critical reflection. We hope that teachers in each school will develop critical reflection strategies as they build their own professional learning communities but we are not insistent that these strategies require writing of any form. However, we do hope that the scaffolding provided in the teachers' booklet encourages teachers to keep written records of their work.

Ethical Matters

So far we have provided a straightforward account of the connections between the two research projects, with explanations of the lessons we have learned about conducting research in PNG and how we are applying those lessons in the ADRA project. In this last section of this paper, we want to consider some of the ethical dilemmas we face in participating in cross-cultural research contexts, especially those of us who write from an Australian, western/Centred academic position.

The first of these dilemmas relates to Papua New Guinean teachers' willingness to engage in research projects. In Australian universities, research involving people must obtain ethical approval (which both projects obtained) and meet guidelines set out in the National Statement on Ethical Conduct in Human Research. In these guidelines, and in universities' interpretations of these guidelines, participation in research is constructed as a risk, which is defined as "a potential for harm, discomfort or inconvenience" (Australian Government, 2007, p. 15), and researchers must show how the benefits of research outweigh these risks. Our experiences in working with teachers and other key stakeholders in the education sector in PNG contradict this view of research participation. In the IS6 project teachers expressed not only a willingness to engage in our research but also a profound gratitude for our selection of their schools. This gratitude was expressed through the gifts given to the Australian members of the team in schools in Port Moresby, through prayers and speeches offered to the members of the team when visiting and working with teachers in the elementary schools, and through the written reflections of the teachers undertaking the action research projects ('God bless Richard', wrote one teacher in her reflective journal).

In planning the ADRA project we have considered our ethical responsibilities to the participating teachers in the light of this enthusiasm. We believe it is our

responsibility to ensure that all participants understand that this is our work, that we gain not only intellectually but academically and professionally if our research is successful. We also need to ensure that participants understand that while the research is funded through AusAID, it is not part of AusAID's usual support and funding for education activities in PNG.

One of the reasons for teachers' enthusiasm for the IS6 project was the research team's willingness to act as professional developers while working in the schools and this role has raised a second ethical issue related to the researcher/researched relationship. As noted earlier, many of the teachers participating in that project perceived the research team as educational experts who could help them make sense of the new curriculum. The teachers were eager to listen to ideas from the researchers who at times took the place of absent trainers and standards officers.

PNG teachers are concerned that research activities are not simply information gathering and one sided, but are based on a strong relationship that results in a direct benefit to them as classroom practitioners and assists the local community in terms of development. The generation of new knowledge is useful according to teachers, but based on reciprocal exchange. Researchers had to be seen as giving something in exchange for information about classroom practices. For example, the elementary schools attached to a cluster in one of the remote research sites in IS6 asked if they could all be involved in the study because the cluster operated cooperatively and they wanted to share experiences as part of their professional development. The study was flexible enough to add a further five elementary schools to the study.

In the CRIP IS6 final report we considered the following matter.

The research team has debated our role in the study. Should the researchers be observers documenting what teachers do and refrain from offering advice when we are confident that our advice would remedy a particular problem encountered by a teacher? The research team has taken the view in the case of the site schools, which is consistent with the original research proposal, that the researcher is a part of an acknowledged group of people interested in understanding elementary education, the implementation of a new curriculum approach, and working together to seek ways to improve the delivery of learning in the classroom.

This continued search for methods to improve teaching is a feature of the data collected during 2006. It seems that elementary teachers do not particularly worry about where this advice and guidance comes from, as long as it is delivered through some kind of personal interaction, and as long as they do not become the subject of conflict between different groups offering the assistance. It would seem from the final data collection that the role of the researcher during the site visits has had an impact on school improvement. Schools have reported improvements in community relations, in staff attendance, in use of cultural mathematics, and in general use of the curriculum, that have occurred because of intervention by the researchers. This finding has implications for further research in PNG, where it could be suggested that researchers should be cognisant of their roles as advisers to teachers (Evans et al, 2007, p. 139).

The researchers' roles as professional experts might appear to contradict the stated aims of an action research model that develops teachers' abilities to solve problems themselves. However, the ADRA project uses ideas and methods associated with collaborative university-teacher partnerships (van Kraayenoord et al, 2007) to facilitate teachers' use of the action research process. The researchers will provide their expert assistance in the use of the research method but as well will share their professional educational expertise.

Finally, we are cognisant of the particular difficulties associated with working in cross-cultural teams with varying levels of expertise and knowledge. We are aware that our research design for the ADRA project could be viewed as an illustration of an unequal partnership in that NRI staff complete the data collection phases and the Australian team act as overseers. However, the design was based on our combined in-depth knowledge of the issues related to conducting research in PNG. We all know that the NRI team are the experts in this area, and that their field-related expertise, coupled with their research experience, are invaluable in negotiating the use of an action research model with schools. Our research in the ADRA project aims to develop a professional learning model that will work in Papua New Guinea, and who better to lead the trialling

of such models than Papua New Guinean researchers themselves.

Conclusion

The methodological, ethical and interpersonal issues discussed in this paper may appear to be those that affect the design of any research study, and are reminiscent of those wrestled with in any large research team. We argue, however, that it is when working within cross-cultural contexts that these issues become illuminated. For the Australian members of the team working in PNG with Papua New Guinean academic colleagues has caused us to assume an almost auto-ethnographic gaze on our own research traditions and the assumptions that we hold about research participants, the role of the researcher, and the methods we use. Even the utilitarian and somewhat overused technique of using a survey instrument became a challenge as all aspects of its development, production and distribution were re-negotiated and re-designed to suit PNG contexts. As researchers we encourage our participants to develop self-reflexive attitudes to their own work as teachers, to engage in critical reflection of their roles and practices. This article adopted such a self-reflexive view of our own work as academics and researchers as we endeavour to produce methodologies that are academically rigorous, contextually suitable, and epistemologically appropriate for PNG.

References

- Alton-Lee, A. (2003). *Quality teaching for diverse students in schooling: Best evidence synthesis*. Wellington, New Zealand: Ministry of Education.
- Ashenden, D., Blackburn, J., Hannan, B. & White, D. (1984). Manifesto for a democratic curriculum. *The Australian Teacher*, 7, 13–20.
- Aubusson, P. J., Steele, F., Dinham, S., & Brady, L. (2007). Action learning in teacher learning community formation: Informative or transformative? *Teacher Development*, 11, 133–148.
- Australian Government (2007) *National Statement on Ethical Conduct in Human Research 2007* (National Statement), Canberra, ACT: Australian Government
Retrieved 12 October, 2007 at
<http://www.nhmrc.gov.au/publications/synopses/e72syn.htm>

- Chapman, J. & Aspin, D. (1997). Autonomy and mutuality: Quality education and self-managing schools, in Townsend, T. (Ed.) *Restructuring and quality: Issues for tomorrow's schools*, London: Routledge, 61–77.
- Cochran-Smith, M., & Zeichner, K. (2005). Executive summary. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education* (pp. 1-36). Mahwah, NJ: Lawrence Erlbaum.
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Educational Policy Analysis Archived*, 8(1). Retrieved January 20, 2008 from <http://epaa.asu.edu/epaa/v8n1/>
- Dinham, S. (2007). The dynamics of creating and sustaining learning communities. Unicorn Online Refereed Article, ORA43. Canberra: Australian College of Educators.
- DuFour, R. (2004). What is a “professional learning community”? *Educational Leadership*, 61(8), 6–11.
- Evans, T. D. et al. (2006) *PNG Curriculum Reform Implementation Project Impact Study 6 Final Report*, AusAID commissioned report. Geelong: Deakin University, <http://www.deakin.edu.au/arts-ed/research/education/conferences/publications/index.php>
- Fullan, M. (2005). *Leadership and sustainability*. Thousand Oaks, CA: Corwin.
- Guy R (1994) Reconceptualising Educational Research Methodology in Papua New Guinea. *Papua New Guinea Journal of Education*, 30, 2, 95–114.
- Holloway, J. H. (2006). Connecting professional development to student learning gains. *Science Educator*, 15,1, 37–43.
- Honan, E, (2003). Teachers as researchers using the four resources model as a map of practices. In *Teachers as Leaders: teacher education for a global profession, ICET 2003 International Yearbook on Teacher Education*, 48th World Assembly of the International Council on Education for Teaching, 20th – 25th July, 2003, Melbourne, Australia.
- Ingvarson, L. (2005). Teaching standards: Foundations for professional development reform. In M. Fullan (Ed.), *Fundamental change* (pp. 336-361). Dordrecht, The Netherlands: Springer.
- Kemmis, S., & McTaggart, R. (Eds.) (1988). *The action research planner* (3rd ed.). Geelong: Deakin University Press.
- Kincheloe, J. L. (2003). *Teachers as researchers* (2nd ed.). London: Routledge/Falmer.

- Learning Federation. (2002). *Educational soundness standard*. Melbourne: Curriculum Corporation.
- McNiff, J., Lomax, P., & Whitehead, J. (1996). *You and your action research project*. London: Routledge.
- Saunders, W. M., & Goldenberg, C. N. (2005). The contribution of settings to school improvement and school change: A case study. In C. R. O'Donnell & L. A. Yamauchi (Eds.), *Culture & context in human behavior change: Theory, research, and applications* (pp. 127-150). New York: Peter Lang.
- Schön, D. A. (1983). *The reflective practitioner*. New York: Basic Books.
- Sparks, D. (2002). *Designing powerful professional development for teachers and principals*. Oxford, OH: National Staff Development Council. Retrieved January 15, 2008 from <http://www.nsd.org/sparksbook.html>
- van Kraayenoord, C.E., Honan, E., & Moni, K.B. (2007). *Improving and sustaining literacy through pedagogical change: The report*. Brisbane: The University of Queensland, School of Education.
- Victorian Curriculum and Assessment Authority (VCAA). (2004). *Curriculum Victoria: Foundations for the future. Summary report of an analysis of national and international curriculum and standards documents for the compulsory years*. East Melbourne: VCAA

Correspondence

Name: Terry Evans, Richard Guy, Eileen Honan, Patricia Paraide & Sandy Muspratt
Email: tevans@deakin.edu.au