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CHAPTER 7: USING ACTION RESEARCH TO IMPROVE THE QUALITY OF TEACHING IN BASIC EDUCATION

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Introduction

The provision of universal basic education in Papua New Guinea (PNG) is dependent on suitably qualified teachers being available wherever there are schools in the nation. This means that children in the remote areas require good teachers who can be supported in their careers in remote schools. This support includes not only facilities and material resources, but also professional learning and collegial support. This paper reports on a project that researches the use of action research with teachers in remote primary schools in PNG to provide sustainable professional learning to help improve the quality of schooling. It arises from an Australian Development Research Award (ADRA) research project being undertaken by the authors from mid-2009 to mid-2012. This paper is one of two papers presented at the Inaugural Basic Education Conference from this project. The other discusses action research as an approach to professional learning and the development of an action research model and templates for use in PNG. The current paper describes the project’s research design and its implementation to investigate the introduction, implementation and feasibility of teachers using action research to solve their own problems related to providing basic education in remote communities. If successful, action research may prove to be an effective approach to sustaining professional learning communities in locations where traditional approaches and means of professional development are difficult or impossible to sustain.

The paper describes the research team’s approach to identifying and engaging schools in remote districts of Western and East Sepik provinces, identifying schools to trial action research, and to undertake the fieldwork to implement action research and to study its implementation. In addition, a survey was distributed to all teachers in the two provinces seeking their views and opinions about their professional learning needs and circumstances. The teachers’ experiences with using action research are presented in the context of their particular research topics chosen for their school. To date, the findings suggest that teachers can use action research to help them improve the quality of the education they provide for children. However, the initiation and sustainability of such an action research approach is influenced by the capacities and commitment of head teachers and standards officers, in particular, valuing and understanding reflective practice and action research for professional learning in school communities.

Research Design

The research design for this project has its origins in an earlier project in PNG in which the authors participated that was entitled Impact Study 6 Curriculum Reform Implementation Project (Evans, Guy, Honan, Kippel, Muspratt, Paraide & Tawajole, 2009). That project was focused on elementary school teachers and used action research as one of its main strands, along with a survey of elementary school teachers, and interviews with key personnel. As Guy (1994) argued, there are potential advantages in the use of action research in educational research in PNG, not the least of which are the benefits that accrue to the participants themselves from learning to use
this form of reflective practitioner research on particular questions or problems they wish to address. In Impact Study 6, the approach to action research was modified to suit the specific context, including the elementary teachers' levels of education, their knowledge and experiences of writing English, and the need to have National Research Institute (NRI) research team members help facilitate the research during three sequenced visits to the schools. The NRI research team members helped the elementary school teachers identify a problem related to the curriculum reforms, 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. During the IS6 project about 135 elementary teachers participated in the action research, with varying degrees of success, over approximately 18 months (see, for further discussion, Evans, Guy, Honan, Paraide & Muspratt, 2010, pp.80–81).

The present ADRA project used a similar research design to explore if action research could be used as a form of professional learning for primary school teachers in remote areas of PNG. Sustaining teachers' professional learning in remote schools is a problem in many, if not most, nations and action research has proven to be successful in some instances (Maxwell, 2009, 2010). The costs and practicalities of providing professional learning that addresses the needs and contexts of remote teachers are often insurmountable. Impact Study 6 showed that action research was feasible with elementary school teachers in different areas; the ADRA project is exploring whether it can work with primary school teachers (who are generally more highly qualified than elementary school teachers) but in remote areas of PNG. One element of the project uses a survey of all primary school teachers in all schools in the two remote provinces (East Sepik and Western) in which the action research trial schools are located. The survey contains, in addition to demographic detail about the teachers and their schools, a series of questions concerning professional learning models, questions related to teachers' perceptions of the importance of the sustainability and development factors that contribute to professional learning communities, their experience with professional learning models, the effectiveness of delivery modes in reaching large number of teachers, and their sustainability. The analysis will identify the professional learning models that teachers perceive to be more or less effective according to their, and their schools' background characteristics.

The nature of the action research procedure deployed in this project is explained in Reta, Honan, Evans, Muspratt & Paraide (2011). Our purpose here is to describe how the research project was implemented and how data were collected on this form of professional learning in the remote schools. Of course, the same difficulties that make professional learning in remote schools difficult also conspire to make research in those areas and schools difficult. The NRI team members are working with selected schools to identify problems and issues related to teaching and learning practices and to develop local solutions. Each school works together on one particular action research project guided and facilitated during visits by their NRI researcher. The NRI researchers are also participant observers who complete journals on their visits and collect other data as appropriate. These observations are related to the development and sustainability factors for a professional learning community. A key matter is whether action research can be introduced and sustained in remote schools using the action research guide developed and trialled as part of the project without external facilitators, such as the NRI researchers. We shall
now describe how the project unfolded commencing with the selection of the provinces, districts and schools.

Selection of Provinces, Districts and Schools

The ADRA project’s goal was to work with schools in remote areas in Papua New Guinea because teacher professional support for these schools is generally minimal. This is due primarily to funding, distance, topographical and other practical constraints. Boat and air travel to and from remote areas is expensive and road travel poses security risks. Ambunti-Drekirkir District in the East Sepik Province and Middle Fly in the Western Province were selected for the study because they are classified as remote districts. Furthermore, these districts’ students’ performances in the 2009 grade eight examinations were the lowest in these two provinces. Three primary and community schools classified as remote, but accessible to the researchers, were selected as the ADRA school sites. We required schools to be a minimum of one and a half hours’ travel from the nearest district station/township. The Provincial Education Advisors (PEAs) and District Education Advisors (DEAs) advised on the schools’ selection.

In 2009, the NRI team leader communicated officially with the Secretary of the National Department of Education (NDOE) seeking permission to implement the ADRA project in the nominated districts. An ADRA project proposal was submitted to the National Department of Education Ethics Research Committee for approval: this was granted. With NDOE approval, a letter was sent to the PEAs in East Sepik and Western Provinces seeking their permission to conduct the study in the selected districts. Both written and telephone communication, especially to Western Province, proved to be difficult for establishing initial contact with the education officers in these provinces. Therefore, in late 2009 as part of another project, a preliminary visit was made to the Ambunti-Drekirkir District to seek approval for the project from the PEA and the head teachers of the nominated schools. Such an arrangement could not be done with Western Province because no NRI project was current in Middle Fly during that period. A similar exercise was done in Western Province during the first ADRA project visit, which proved to be quite challenging but productive. Even though the District Education Advisor had only verbally been informed about the ADRA project in the Balimo area, he was willing to allow the study to proceed. He was given a copy of the letter written to the Western District PEA.

The teachers in the three school sites were also approached to seek their permission to participate in the implementation of the action research booklet. Two of the school sites involved their schools’ communities in the discussions of the schools’ participation in the study. The communities wanted to understand how the students would benefit from such involvement. Once they understood why the research was being conducted in their schools, they provided unreserved support for the duration of the study.

Implementation of the Research

The duration of the project is three years from mid-2009. We planned four visits to each district during 2010 and two for 2011. The purpose of the first four visits was to support and observe the teachers during the various stages of the action research cycle. The last two visits in 2011 were to assess the sharing of the action research process with colleagues and to gauge the sustainability of action research in the schools.
The teachers and the Standards Officers were enthusiastic and keen to participate in action research to solve professional learning issues in the schools. This method of research is encouraged in the implementation of the School Learning Improvement Plan (SLIP). However, it was found that the teachers had limited knowledge on how to carry out research using action research. The teachers found the step-by-step approach in an action research booklet developed for the project useful because it allowed for collegial discussion and sharing of ideas about the research cycle throughout the implementation process.

The NRI researcher was in a particular school for only a couple of days during each visit. However, the teachers were encouraged to continue working on some of the activities in the booklets while waiting for the researcher’s next visit. Although some of the older teachers had completed some research units during their Diploma in Education Primary (In-service) (DEPI) courses and the younger population had done likewise in their diploma courses, their general understanding of research was limited. The teachers were advised that they normally had some useful data to handle, such as assessment records, data that could be analysed as part of their own action research projects, for example, to calculate improvements in students’ learning as a result of changes to teaching strategies to address a particular teaching or learning problem. Few teachers retained systematic assessment records in all subject areas that could have been analysed, and the findings used to plan strategies to improve teaching and learning issues in the schools. Therefore, the action research projects principally relied on new data being collected on the particular teaching and learning issues identified during the action research cycle. Developing simple tests and questionnaires to collect data from the parents, students and/or teachers was a new skill to be developed for most of the teachers. Much guidance was given to the teachers by the researchers from NRI during the development of research instruments.

Teachers collected data during the time between the researchers’ visits. Rudimentary data analysis approaches were explained to the teachers so that they could assess their outcomes appropriately. For example, some of the teachers were unsure of how to calculate percentages and how to use and interpret them in their action research. The researchers addressed such matters during their visits and usually the teachers became competent as a result. Drawing inferences and conclusions from the data were also skills in which the primary school teachers were not well-practised. Again, the researchers helped the teachers gradually through these processes. The final visits to the schools and districts for the project will enable the team to assess whether the absence of such skills can be addressed beyond the project, otherwise sustainability may be compromised.

**Preliminary Findings**

Action research is encouraged by the NDOE as part of the SLIP program. Within SLIP, teachers are expected to identify school issues and develop strategies to address those using available resources. In the Middle Fly District, this was the primary reason for the Standards Officer’s interest in supporting the trial of the action research booklet. The head teachers were also supportive of action research because, through their experience with the implementation of the action research booklet, they were able to identify their own teaching and learning issues, develop strategies to foster improvement and actually see the result of improvement. They were able to assess how their planned strategies addressed their issues and enhance them or develop new strategies to improve the professional learning situations. They were unable to do this before
the project, because they were uncertain of how such reflective and collaborative research was undertaken. Furthermore, the head teachers are currently implementing SLIP in their schools and so the project’s action research plan and booklet complements the SLIP program. In this particular case, the teachers work through the research cycle systematically using the booklet as a guide with some support from the researchers. This allowed for a systematic learning of how to carry out such research in their particular schools. Participation in the action research cycle developed awareness among teachers about how they could solve professional learning issues themselves. This gave staff the confidence to tap into their own school’s resources and other available materials to achieve professional learning without relying on outside ‘experts’ or attending workshops in locations distant from their schools.

As the two school districts are at different stages of implementation of the action research project, only the Middle Fly teachers have undertaken the sharing with colleagues’ session. This is largely due to a delay in ADRA work in the Ambunti-Drekirkir district due to an unexpected change in the research team. However, at these different stages, it can be argued that the teachers found the experience of participating in the action research rewarding. In particular, the action research booklet was valuable as a guide and source of reference while the researcher was away. The teachers from the Balimo school sites used it during the sharing with colleagues’ sessions. They were able to competently share their experiences about action research with teachers from the two primary schools in the Balimo Station and the ten community and primary schools around the lagoon area of Balimo. The planning and program of the sharing sessions was left entirely to the teachers from the school sites and the host schools. All the teachers were able to walk, paddle, or boat to the two different workshop venues during the two-day sharing sessions. All the schools contributed financially and in-kind towards lunch for the two-day workshop.

The research booklet has been used well by the teachers from the ADRA school sites to support their colleagues to implement the portion of the SLIP which encourages action research at the school level. Recent reports from the Standards Officer who was involved in the implementation of the action research booklet but is now based in Daru, show that the current Standards Officer based in Balimo is supporting the implementation of the action research method of research in the schools who participated in the action research sharing sessions in March 2011. The staff now meet every Friday afternoon to discuss the progress in the action research cycle in their particular school with professional support from the ADRA school site teachers on action research. Encouraging feedback from the provincial education headquarters in Daru indicates that the new senior primary standards officer is supportive of the use of the action research booklet by all primary and community school teachers in Western Province to solve their own profession learning issues. This suggests that the action research booklet has the potential to be used by interested stakeholders as a guide and source of reference in the absence of researchers or outside ‘experts’ to solve school level professional learning and other issues. The final stages of the project and the associated analyses may confirm this.
Conclusion

The preliminary findings from the project indicate that action research is a viable means of professional learning in these remote districts of PNG. The survey data analyses will be able to show the extent to which these districts and their schools and teachers reflect others in the provinces. To the extent that they do, this will or will not support the conclusion that action research is potentially viable, as is encouraged in SLIP, for professional learning in remote areas and, by inference, in PNG in general. The project, however, provides a level of support for the process of action research through its visits that is not envisaged in any sustainable form of using action research. The intention is to refine the action research booklet for primary schools so that it can be used in the normal circumstances of school life where external support is provided through the Standards Officers, cluster etc.

As noted previously, Guy (1994) argued nearly two decades ago for the advantages in the use of action research in educational research in PNG and that this form of reflective practitioner research has benefits for what is called nowadays, 'professional learning'. Our previous work Impact Study 6 Curriculum Reform Implementation Project (Evans, Guy, Honan, Kippel, Muspratt, Paraide & Tawaiyole, 2009) in which Guy was involved also supports our view that the potential exists for action research to be useful for teachers' professional learning. At this stage, it appears that our current project can provide further evidence for this and yield a tangible outcome in the form of an action research guide for use in PNG schools as they work to provide universal basic education in the nation.

References


