THE UNIVERSITY OF AUCKLAND
LIBRARIES AND LEARNING SERVICES

ResearchSpace@Auckland

Suggested Reference

Lee, K. M., Mawson, W. B., McGlashan, A. A., Neveldsen, P. G., Wells, A. W. J., Patterson, M. N., . . . Weal, B. J. (2008). Developing a research culture which investigates the impact of professional practice.. In H. Middleton, & M. Pavlova (Eds.), Exploring technology education : solutions to issues in a globalised world. Crowne Plaza Hotel, Surfers Paradise, Gold Coast, Queensland, Australia.

Copyright

Items in ResearchSpace are protected by copyright, with all rights reserved, unless otherwise indicated. Previously published items are made available in accordance with the copyright policy of the publisher.

https://researchspace.auckland.ac.nz/docs/uoa-docs/rights.htm

Developing a research culture which investigates the impact of professional practice.

Paper presented at the 5th Biennial Technology Education Research Conference, Queensland, Australia

Kerry Lee, Brent Mawson, Ann McGlashan, Paul Neveldsen, Moira Patterson and Alastair Wells

The New Zealand Ministry of Education is calling for greater links between in-service and pre-service teacher educators. At the same time it has published a document which highlights the dearth of research into the impact of tertiary courses on preparing students to teach (Timperley, Wilson, Barrar, & Fung, 2007). This paper outlines how a group of pre-service and in-service technology teacher educators worked together to develop a research proposal to investigate the impact of their own practice. The research is designed to investigate student teachers' and provisionally registered teachers' perceptions of the effectiveness of the pre-service and in-service experience in preparing them to teach technology. At a time when the NZ headlines are stating that new teachers are not prepared well to teach, this research will enable more effective pre-and in-service programs in technology education to be developed.

Introduction

This paper outlines a partnership which was developed between pre-service and in-service teacher educators. This team worked together in order to develop and undertake a research project. The research project is at present still at the data gathering stage so will not be emphasised at this stage, rather the unique position of working together as a team and the benefits identified form the basis of this paper. "We know little at about the changes that are required of professional developers as they make their practices more responsive to the demands of the curriculum reform era" (Stein, Smith, & Silver, 1999, p. 238). It is therefore hoped that this paper will prove useful for other institutions whose staff are working (often in isolation) to improve their practice through research. The paper will provide a brief background to the New Zealand setting for any international readers and then explain how and why the partnership developed. As reviews of professional development research consistently highlight the ineffectiveness of most programmes (Cohen & Hill, 2000; Guskey, 2002; Wang, Frechtling, & Sanders, 1999) the majority of the paper will take a positive approach and focus on the benefits of undertaking such a project and then identify the wider implications for other institutions.

Background

In New Zealand the lecturers who deliver courses to students training to be teachers are called pre-service teacher educators. After the students graduate they are expected to work for two

years before being given registration. In-service teacher educators support the teachers through this provisionally registered phase and then throughout their career. Pre-service and in-service teacher educators are frequently located in different buildings and employed by different institutions. In some areas there may be more than one pre-service provider. Linking between pre-service and in-service would be an obvious benefit for the student teachers as they make the transition between university study and the workforce, however this is rarely possible.

When national funding became available, a group of Auckland in-service and pre-service educators worked together to put in an application. Although the application was unsuccessful within the institution, the group decided to work together and undertake a research project. The purpose of the research was to investigate student teachers' and provisionally registered teachers' perceptions of the effectiveness of their pre-service and in-service experience in preparing them to teach technology. With the New Zealand media recently stating new teachers are not well prepared (McKenzie-Minifie, 2007, 2008) it was hoped the research findings would enable more effective pre and in-service programs in technology education to be developed and delivered and thus enhance pre-service and in-service practice, which is a major emphasis for the Ministry of Education (Ministry of Education, 2007).

Detail of the partnership.

The group was fortunate in that they had all worked together at various times. All the in-service educators had worked with the pre-service educators as lecturers. All bar one of the pre-service educators had prior experience as in-service educators, although not with this team of people. This led to a greater understanding of the complexities of each other's jobs and a good starting point for research possibilities.

Due to the nature of their jobs, in-service and pre-service educators rarely work closely together within the New Zealand environment. This research opportunity was seen as a chance to strengthen this relationship.

In order to develop a stronger research culture and therefore increase PBRF (Performance-Based Research Fund) ratings, a pool of funding was available to initiate research projects. The group decided to apply for funding in order to work together to prepare a research outline and research proposal. It was hoped that the structure of a funding and ethics application could also be written. This group was led by an experienced researcher with the remainder of the team having minimal experience in the research environment.

The principal researcher initiated e-mail discussions, facilitated meetings, and then organized a day where the group met in order to plan the research possibilities, funding application and research process. The day proved very valuable with all parties keen to continue the partnership. The principal researcher used the ideas developed to write a funding application. This was

distributed to the rest of the team for feedback. The application was successful and money was provided for a two-day retreat for the team. Two researchers were employed to source material for the team to use while away. It was hoped that this would enable the team to remain focused rather than becoming distracted with a broad range of research available. The retreat allowed time to re-establish the relationship of trust and time to 'throw ideas into the ring'. All participants spent out of session time ie. breaks discussing research ideas with the team. Although this proved to be two very long days, a great deal had been achieved. At the end of this retreat the group sat down and had a debrief, to discuss whether the project so far was successful and whether it should continue. All members found the retreat highly successful and the following section elaborates on notes that were taken at this meeting.

Advantages identified.

The initial one day meeting provided stimulus and laid the foundations for the partnership to develop and research proposal outlines to begin.

The two-day retreat was off site and allowed all team members to focus solely on the task at hand, without any distractions (work and personal interruptions/commitments). By staying overnight the team remained focused a lot longer than would be expected in normal working hours. Everyone was keen to utilise the short time that was available and people refocused those who started to tire or 'get off track'. The enthusiasm to achieve the goal was contagious and maintained throughout the time together.

Having time to discuss the issue over a cup of coffee provided a safe environment where all participants felt valued. Quickly ideas developed and people built on each other's ideas whilst feeling secure enough to be able to challenge each other professionally. Participants commented on what an excellent opportunity they had been given to learn from their colleagues. They were given time to discuss and evaluate their own practice. From here they were able to plan research in order to ensure the findings could inform the practice. The establishment of this professional learning community proved very important for this group. This was also identified by Timperley et.al. as an effective context when investigating teacher professional learning and development for the Best Evidence Synthesis Iteration (a report commissioned by the Ministry of Education to support collaborative knowledge building within New Zealand educators) (Timperley et al., 2007).

Guskey writes that "change is a process rather than an event" (1986, p. 10). It was hoped that confidence and experience would be gained from being a part of the entire research process, rather than taking a small role such as an interviewer. In this way the group quickly learnt the complexities of undertaking research on a larger scale than may have been previously experienced. Although they did not directly write the funding and ethics proposals they had an input at the initial stages and then supported and followed the process as each proposal went to

the various committees. After this they had a much broader picture of a research path. Butler would refer to this as professional practice or performance, because the "reflection on action (is) within a public knowledge context" (1996, p. 270).

Many research articles on professional development include professional, personal and social attributes (Bernstein, 1983; Butler, 1996; Clarke & Peter, 1993; Coll, France, & Taylor, 2005). This undertaking had aspects of all three of these attributes. Time was given for participants to socialise and strengthen collegial bonds in a nonthreatening situation. The retreat was in a remote location, and had excellent facilities. Although participants felt they had worked extremely hard they also felt very lucky to have the experience. All participants commented that it was good to get away from the pressures of work, to such a beautiful spot-even if it was only for two days. Many participants discussed the process they were undertaking and reflected on their own personal study. Although there were gains personally and socially the main gain for the team was professionally. The following section outlines how an institution may be able to support this professional growth.

Implications for other institutions considering such an undertaking

This group of teacher educators have gained an insight into the research process. They have now been active participants and are one step closer to an increasing their PBRF ratings. A great deal has been written on how an institution can support employee professional development (Fullan, 2003). Success was attributed to the group feeling they had ownership and direction of the research path. The process was manageable and achievable within the time frames. Although the group was very large, the participants had the confidence that in the future someone would be there to participate at times when they were too busy to be actively involved. They felt the research would be of value. It was hoped that all research findings would contribute to improving future courses.

The major influence however was having at a team member who was very experienced at the research process. Prior experience at applying for funding and ethics applications, respect of the team and taking a lead role throughout the process, ensured the team remained focused and productive. After the end of every session most team members felt they had contributed and the team had achieved the goal that had been set. It must be acknowledged that this task was extremely time-consuming and detracted from the numerous research projects he was already involved in. The research process and mentoring formed a positive collegial relationship and was a good example of capacity-building (Anae, Coxon, Mara, Wendt-Samu, & Finau, 2001). However institutions need to consider workload for the principal researcher, as their role is pivotal in the success of the programme.

Conclusion

This paper deliberately lacks detail of research methodology and findings but focuses on a case study (Yin, 1994) of a research project which fostered a relationship between two groups of

people who do not normally meet on a regular basis. It provides the merits of such an undertaking and provides advice for institutions considering a similar process.

At the conclusion of this initial phase all participants had given up time from their every day work, and so were now in effect behind, yet they would recommend the process to any colleague. They returned to work very tired but extremely motivated and revitalized. What more could a boss ask for.

Anae, M., Coxon, E., Mara, D., Wendt-Samu, W., & Finau, C. (2001). Pasifika Education Research Guidelines. Final report. In Ministry of Education (Ed.) (pp. 52). Wellington: Auckland Uniservices.

Bernstein, R. J. (1983). *Beyond Objectivism and Relativism: Science, Hermeneutics, and Praxis*: University of Pennsylvania Press.

Butler, J. (1996). Professional development: Practice as text, reflection as process, and self as locus. *Australian Journal of Education, 40*(3), 265-283.

Clarke, D., & Peter, A. (1993). *Modelling teacher change.* Paper presented at the *Proceedings of the Sixteenth Annual Conference of the Mathematics Education Research Group of Australasia*, Australia: MERGA.

Cohen, D. K., & Hill, H. C. (2000). Instructional Policy and Classroom Performance: The Mathematics Reform in California. *The Teachers College Record, 102*(2), 294-343.

Coll, R. K., France, B., & Taylor, I. (2005). The role of models/and analogies in science education: Implications from research. *International Journal of Science Education, 27*(2), 183-198.

Fullan, M. (2003). Planning , doing and coping with change. In M. Preedy, R. Glatter & C. Wise (Eds.), *Strategic leadership and educational improvement* (pp. 185-197). London: The Open University.

Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5-12.

Guskey, T. R. (2002). Professional Development and Teacher Change. *Teachers and Teaching: theory and practice, 8*(3/4), 381-391.

McKenzie-Minifie, M. (2007, 24 April). Teachers' trainers to be policed. *New Zealand Herald*. Retrieved 20th August, 2008, from http://www.nzherald.co.nz/section/1/story.cfm?c_id=1&objectid=10435837

McKenzie-Minifie, M. (2008, 3 March). New teachers face extra year of training after quality criticised. *New Zealand Herald*. Retrieved 20th August, 2008, from http://www.nzherald.co.nz/section/1/story.cfm?c_id=1&objectid=10495723&pnum=0

Ministry of Education. (2007). Becoming a teacher in the 21st century: a review of initial teacher education policy (September 2007). Wellington: Learning Media.

Stein, M., Smith, M. S., & Silver, E. (1999). The development of professional developers: learning to assist teachers in new settings in new ways. *Harvard Educational Review, 69*(3), 237-269.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development. Best evidence synthesis iteration (BES).* Wellington, New Zealand: Ministry of Education.

Wang, Y. L., Frechtling, J. A., & Sanders, W. L. (1999). *Exploring linkages between professional development and student learning: a pilot study*. Paper presented at the Annual meeting of the American Educational Research Association.

Yin, R. (1994). *Case study research: design and methods*. Newbury Park, CA: Sage Publications.