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## The NEMP Experience: Professional Development of Teachers through the National Education Monitoring Project<sup>1</sup>

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### **Abstract:**

*A key element of the National Education Monitoring Project in New Zealand is the employment of specially trained, practising teachers to work intensively with 60 children over a five week period in at least five different schools. This study attempts to document the nature and level of professional development gained by these teachers by this experience through the use of weekly diaries, a series of questionnaires, and interviews with "case study" teachers. The data reveal that the professional development opportunities rendered benefits which were numerous, broad and multi-faceted. They ranged from the personal and professional, specific and general, immediate and longer-term, assessment-related and beyond.*

In its broadest sense, professional development (PD) has been characterised as "the total set of formal and informal learning experiences that teachers accumulate throughout their career until they leave the profession" (Clement & Staessens, in Kieviet & Vandenberghe, 1993, p. 133). It is "a life line for quality work environments and satisfying careers" (Lovett, 1995, p. 21).

The nature of PD has been undergoing a "paradigm shift" (Sparks, 1995) during the past 20 years: from models which use "top-down" strategies in which teachers take a relatively passive role in being exposed to new ideas, or trained to use new practices; to models in which teachers take a more active role, in which their knowledge and experiences are valued and incorporated into the programme, and PD

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is embedded within the context of their own classroom and school practices (Zeegers, 1994). Indeed, the most effective PD experience is seen to be a cultural one within the profession (OECD, 1998) and "is built into the daily, weekly, and year-long job of teaching" (Renji, 1998, p. 73).

The process of quantifying or describing the importance, value or impact of PD has proven to be difficult. Campbell (1997) argues that PD should have "a direct and significant impact on teaching and learning methodology and, in turn, on educational outcomes for students" (p. 26). Similarly, Burgess & Galloway contend that "though impact in the classroom is said to be the acid test ... the paradox is that it can be very difficult to identify" (Burgess, Connor, Galloway, Morrison, & Newton, 1993, p. 169). There are numerous, intangible aspects of the impact of PD which are equally difficult to quantify, such as the teacher's changes in confidence, attitudes, acquisition of higher order thinking skills, the clearer insights gained about teaching or assessment, for example.

Indeed, some participants in formal PD programmes find it hard to pinpoint the impact or the reasons for it (Stanley, 1995). For example, when Zeegers (1994) asked teachers to provide information about the impact of participating in the Australian Science/Technology project (Sci-Tec), she found that "teachers were clearly able to articulate how their practice had changed, however, they were less specific when trying to identify particular aspects of the project which brought about these changes ... [Sci-Tec] ... provided different things for different people" (pp. 361-362).

An evaluation of the impact or benefits of PD is further complicated by the idiosyncratic/individual experience of the participants. Whether PD has an impact is not necessarily the result of good management, participants' motivation, or even a good course. "... highly motivated teachers can take back something valuable from an indifferent course, just as there are very stimulating courses which leave certain participants quite unmoved" (p. 168).

Despite the difficulty of documenting/measuring the effectiveness of PD, and given the definition of PD as a career-long accumulation of positive learning experiences, the contribution of a particular learning experience, such as that provided by the National Education Monitoring Project (NEMP), can be gauged through the perceptions of those who participated.

*Benefits of professional development*

The benefits of PD identified in the literature are multi-faceted. Some are direct and specific, some less obviously so. They range from personal to professional benefits, with spin-offs for participants, their classes, and sometimes their school or colleagues. Descriptions of such benefits vary from the abstract, such as “challenging current practices” (Donn, 1995, p. 46) to the specific, such as, gaining an in-depth understanding of the use of technology (fax machines, electronic networking, and audioconferencing) (Stanley, 1995). Further, benefits may accrue from the opportunities created in the learning experience, such as, interaction with other teachers to share ideas.

Among the direct, personal and professional benefits for those who participate in the PD programme are:

- the opportunity to discuss and share ideas with colleagues (Stanley, 1995; Renyi, 1998; Bergeron, Wermuth & Hammar, 1997; Donn, 1995) which may lead to communication networks between schools being set up (Donn, 1995);
- improved teaching practices, particularly in providing more varied activities for children (Renyi, 1998; Hollingsworth in Clarkson, 1996; Zeegers, 1994);
- an increased awareness of how children learn best and how to cater for this (Zeegers, 1994; Renyi, 1998; Dewar & Bennie, 1996);
- an increased awareness of the resources available (Renyi, 1998; Dewar & Bennie, 1996);
- developing a variety of skills and methods for teaching (Renyi, 1998; Dewar & Bennie, 1996);
- improved interpersonal skills (Zeegers, 1994; OECD, 1998);
- promotion (Zeegers, 1994);
- “a broadening of ... perspectives” (OECD, p. 31);
- a “more outward looking view” (Watters & Ginns, 1996, p. 65);
- increase in teachers’ confidence (Hollingsworth in Clarkson, 1996; Watters & Ginns, 1996; Dewar & Bennie, 1996; Zeegers, 1994; Renyi, 1998);
- “a positive effect on teachers’ levels of energy, which in turn affects their feelings of warmth towards students, ... (and) leads to a decline in ... perceptions of the work placed upon them” (Hill, Holmes-Smith, & Rowe in Campbell, 1997, p. 28);
- “an effective antidote to the job dissatisfaction, stress and burnout that some teachers seem to experience” (Chapman & Lowther cited

- by Clement & Staessens in Kieviet & Vandenberghe, 1993, p. 129);
- teachers feeling more in control over their job and work situations, improving their ability to adapt themselves to new demands and changing circumstances, and becoming “more capable of accounting for their professional acts in an emotional and rational way” (p. 136);
- gains in self esteem (Zeegers, 1994) and in self efficacy (Watters & Ginns, 1996);
- opportunities for teachers to reflect, plan, organise, experiment, and practise new skills (Stanley, 1985 and Zeegers, 1994);

There is less documented evidence in the literature of the benefits for others of the participants’ PD:

- Students experiencing a more harmonious learning environment with more varied activities and improved teaching practice (Campbell, 1997; Hollingsworth in Clarkson, 1996; Ministry of Education, 1996);
- Increased effectiveness of the teaching staff as a whole (Campbell, 1997). Staessens, in Kieviet and Vandenberghe (1993) describes teachers in a “professional organisation” type of school, where PD is valued, as experiencing a “strong sense of solidarity with their school and a willingness to invest in school activities” (p. 51);
- Financial benefits – “Countries that succeed in integrating professional learning into the day-to-day life of schools will face lower visible costs in terms of course fees and substitution of teachers absent for study” (OECD, 1998, p. 30).

*The “NEMP experience”*

The main purposes of the National Education Monitoring Project (NEMP) in New Zealand are:

... to meet public accountability and information requirements by identifying and reporting patterns and trends in educational performance...[and]...to provide high quality, detailed information which policy makers, curriculum planners and educators can use to debate and review educational practices and resourcing. (Flockton & Crooks, 1998, p. 6)

To this end NEMP seeks to provide information at a “system level” about how children are performing nationally, as is done in many other western countries such as Canada, England and Wales, Australia and the United States.

The model of national monitoring in New Zealand is characterised by a number of important elements which make it distinctively different from other overseas models. These include: taking a light sample (approximately 3%) of children at two year levels, monitoring children's achievement and attitudes across the curriculum in seven essential learning areas and eight essential skill areas, employing a range of approaches to assessment (one-to-one interviews, team, "hands-on" and independent assessment), and the extensive use of videoing to record student performance. A further important element of the model is the engagement of teachers in a variety of roles, such as assessment task development, membership of curriculum advisory panels and as markers of the assessment tasks. The role in which practising teachers have the most substantive part to play in NEMP is as teacher administrators (TAs). TAs are practising teachers who are engaged by NEMP for a period of six weeks; one week of training on the NEMP assessment tasks to be administered; and five weeks working intensively with 60 children and staff in five or more different schools. Approximately 100 teachers participate each year.

The potential benefits to teachers of their involvement was anticipated at the outset when the model of national monitoring in New Zealand was being planned:

The use of practising teachers will mean a very powerful staff development benefit for the teachers and their schools: substantial training and experience in high quality assessment procedures, and the insights and new perspectives from working intensively with 60 children and the staff in five or more different schools. We believe that this pool of teachers, growing annually, will be of great value to schools and their students. (Crooks & Flockton, 1993, p. 3)

#### *Structural features of the NEMP experience*

The "NEMP experience" involves a number of distinctive "design" features which seek to optimise the PD that teachers gain. These include:

- *An intensive training week* during which teachers are briefed on their role as TAs, become familiar with the NEMP assessment tasks they are required to administer, and instructed in the use of video and other assessment and recording equipment. The primary aim of the training week is to ensure that TAs are trained to conduct the assessment of children with accuracy and in a standardised way;
- *NEMP partnerships* in which pairs of teachers work together within

each school to assess twelve children over the five week period, thus providing collegial support;

- *Ongoing support from the NEMP Office* available at all times to deal with queries, equipment failures or replacements, or missing resources;
- *Working closely with children* using a variety of assessment approaches (one-to-one interviews, team, "hands on" and individual): The maximum number of children a teacher works with in any assessment activity is four;
- *Visiting different schools*: Each pair of teachers visits at least five schools (two or three small schools may collectively provide the number of children required for assessment and TAs will visit more than five schools);
- *Time out from the classroom*: TAs are engaged for a five week period, during which they are released from their regular classroom teaching responsibilities;
- *NEMP reports of results*: All schools in New Zealand are issued with several copies of the NEMP publications which report the assessment results annually;
- *Exposure to new ideas of assessment*: NEMP uses a large number of diverse assessment tasks which are presented in a variety of approaches. They are designed to provide models of good and innovative assessment which teachers may use or adapt for use within their own classes/schools.

This paper addresses the NEMP experience of the teacher administrators and is a part of a larger evaluation which examines and documents the impact of the NEMP experience for teacher administrators and markers over a three year period.

Two specific questions are addressed in this paper:

- How important are the structural features of the NEMP experience for teachers' PD?
- What benefits do teachers gain personally and professionally from their NEMP experience?

#### **Method**

##### *Participants*

All teachers who had been involved as a TA between 1995 and 1997 were invited to participate in the evaluation. This was approximately

300 teachers. (While NEMP attempts to provide PD opportunities for a “new” set of teachers each year, a small number have been engaged as a TA on more than one occasion.)

### *Data Collection*

Data for the evaluation were collected from a variety of sources. Several self-report accounts of teachers’ experiences were complemented with an indepth investigation (visit and interview) of a number of individuals identified as “case studies”. The evaluation design attempts to address the concern expressed in the literature about the reliability of self-reports (by teachers) of changed practice (Burgess & Galloway, in Burgess, et al., 1993).

### *Weekly diaries*

The TAs in 1997 were asked to complete a weekly diary for the five week period they were administering the assessment tasks in schools. Teachers were asked to make brief notes on any significant “lessons” (insights, understandings or ideas) they learned which were, or would be, valuable to them as a teacher when they returned to their own school. The areas in which they were asked to consider these “lessons” were in relation to: NEMP assessment practices and procedures; NEMP resources and equipment; assessing curriculum objectives; school policy or practices; and interactions with teachers, children, parents and their NEMP colleagues. The “lessons” may be in relation to assessment, but may also be in relation to other aspects of their work as a teacher, or other responsibilities in their school. In addition teachers were asked to indicate/highlight the three most significant “lessons”.

### *Questionnaires*

Approximately four weeks after teachers had completed their contract with NEMP and had returned to school, a questionnaire was distributed seeking their perceptions of the training week, the most significant aspects of their work as a TA, their confidence in conducting the NEMP requirements, particular ideas, practices or innovations they had been able to, or would like to see, adopted in their class/school, and any opportunities they had had for sharing what they had learned with colleagues. In addition, they were asked to rate the importance of the core components of the “NEMP experience” for their PD.

At the beginning of the following school year, approximately four to five months after TAs’ contract with NEMP, teachers were asked to complete a second questionnaire. The intention of this questionnaire

was to determine the extent to which teachers had had opportunities for implementing any “lessons” they had learned in their classroom or school practice, factors which may have supported or hindered their attempts to try out new ideas and opportunities for sharing their ideas with colleagues. In addition they were asked to reflect on the benefits of their NEMP experience, and how the PD may have been made more effective.

Teachers were also asked to describe in some detail any particularly successful innovations they had implemented in their class/school. These were examined in detail to identify teachers for in-depth follow-up. At the same time, questionnaires were sent to all TAs who had been involved since 1995.

### *Response rates*

The numbers of teachers who responded to each data collection phase were as follows: (1997 TAs) – weekly diaries (53), questionnaire 1 (57), questionnaire 2 (61); (1995/6 TAs) – questionnaire (91). As the number of teacher administrators each year was 100, these respondents represent 53, 57, 61 and 46 percent of the total, respectively.

### *Data analyses*

Preliminary analyses indicated that the patterns of experiences were similar for TAs from each year of the project. The data have therefore been combined and reported jointly. TA comments have been categorised into broad themes and the percentage of TAs who made comments of a particular type are reported.

Where the views of one particular group were sought (for example, the weekly diaries were only kept by the 1997 TAs), these are indicated. In these instances, the frequency (number of times) particular comments were made are reported.

The “voices” of the TAs are used in this paper to illustrate the nature and breadth of the PD experiences for individuals.

## **Results**

The importance of the structural aspects of the NEMP experience and the benefits gained by TAs are reported in the following sections.

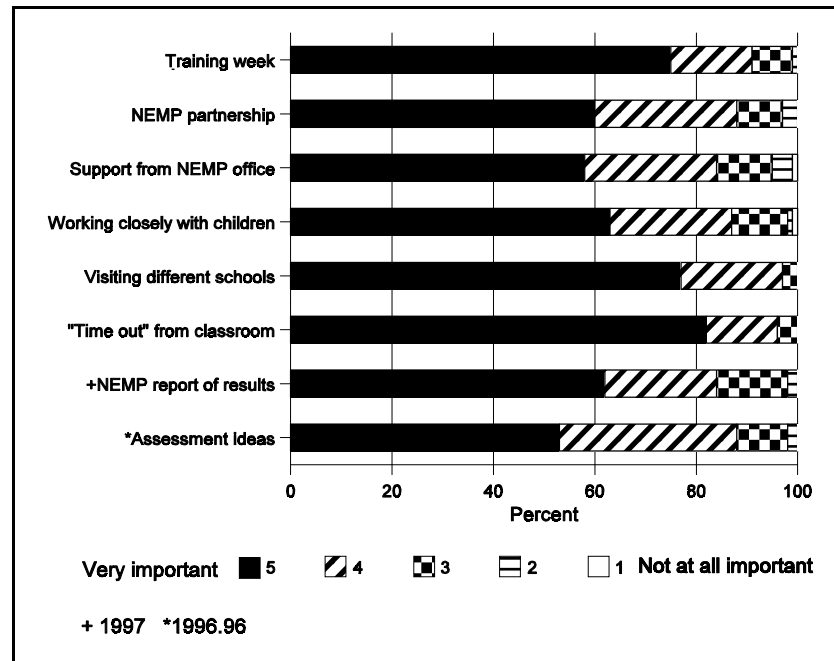
### *Importance of the structural aspects of the NEMP experience*

The eight different features of the NEMP experience were examined for their perceived value to those involved, both enabling them to carry out

their NEMP responsibilities reliably and accurately, and providing insights which might have direct personal or professional relevance for their own assessment (and teaching), or have the potential to influence the practice of their colleagues or school.

Figure 1 displays teachers' rating of the importance (on a 5 point scale from "very important" to "not at all important") of these aspects of the NEMP experience for their PD.

Figure 1 The importance of structural features of NEMP for teacher administrators' PD



The view was expressed by the overwhelming majority of teachers (more than 80%) that each aspect of the NEMP experience contributed in important ways to their PD. This pattern holds true for teachers over the three year period.

*Training week*

The importance of the training week was attributed, in the main, to the need to be fully trained and confident in the NEMP assessment tasks, setting up equipment, standardising instructions, etc. (46%). One TA

commented that it "taught me that thorough preparation is a great confidence booster"; another that "without this week, NEMP wouldn't be a viable proposition." However, broader benefits were gained from the interaction with other teachers (18%). One TA felt that the "chance to work with teachers of that calibre doesn't happen often." Acquiring a greater understanding of assessment issues more broadly was commented on by 7 percent of TAs: for example, "... more aware of shortcomings and positives when setting own [assessment tasks]"; and "[it] opened [a] new range of ideas and perspectives." Only a very small proportion (4%) felt that they had not learnt any new ideas.

In a separate question, TAs were asked to identify the most positive (and negative) aspects of the training week. Aside from the "training" aspect of the week in relation to their direct responsibilities for administering the tasks in the following five weeks (56%), the most positive aspect was the opportunity to meet and interact with a broadly based group of teachers from across New Zealand (68%). The professionalism and support provided by the NEMP team was also commented on frequently (35%). In contrast the number of negative comments relating to the training week was very small. The most commonly expressed concern (by 18% of TAs) related to the intensity of the workload and the need to work in the evenings.

*Being part of NEMP team*

Working as part of a team was valued for four main reasons: it provided the opportunity to observe different schools/ideas and to interact with teachers in a variety of schools (18%) ("[We] have so few opportunities to get into other schools"); teachers were able to share the workload and provide support for each other (14%) ("support that comes from a team"); feeling important/special/ professional (11%); and teachers developed a greater confidence in professional and interpersonal skills (11%).

Comments from the weekly diaries revealed that the majority of teachers described their interactions with their NEMP colleague in positive terms (105). The partnerships were successful (70) and allowed them to share or exchange ideas which often went beyond requirements of NEMP (70). Typical comments were:

I am so lucky! My partner is a pleasure to work with. We work independently, yet together, so there is freedom and support. Would not like to do this job entirely on my own but a difficult partner could be a serious problem.

I have learned a lot from my partner as she has completed a Diploma in Maths and we have discussed many aspects of Maths Education with reference to assessment tasks. She has encouraged me to think deeper about reasons for teaching something a particular way and I now realise I could do more for those children who lack real understanding.

Great professional discussions. Having a buddy really makes this project. You have time to share, reflect and analyse what you do. Having the time means that we are more reflective and more likely to utilise our experiences elsewhere.

Teachers are independent people who get used to working alone and being self sufficient. It's good for us to work alongside one another from time to time.

#### *Support from NEMP office*

The consensus view was that it was good to know that help was readily available from NEMP, which was generally described in positive terms, such as, reliable, efficient and professional (46%). Contact with the NEMP office was considered to be supportive (12%), although 4 percent of TAs commented on not having had any support since the end of the period of secondment. NEMP was generally regarded as "a valuable link for ongoing and effective PD."

The weekly diaries revealed substantial appreciation and admiration of the professionalism of the NEMP team (23) in terms of their organisation of tasks and materials, and back-up support as evidenced in these comments:

Overall organisation was superb – everything allowed for in training, travel, etc.

Very thorough organisation and coverage of activities.

#### *Working closely with children*

The most frequent comment made by TAs referred to the enjoyment they got from having uninterrupted time to watch, in depth, the different strategies children used to solve problems (30%), with the one-to-one and small group singled out for comment as these were seen to "generate better learning and assessment" (12%). It provided an opportunity to further develop, refine and practise their professional skills, including establishing rapport ("good to build positive, fun relationships with small groups"; "[I] will now think more carefully about ideas and questioning." Several TAs felt that meeting children

from diverse schools and backgrounds was also important (5%).

The importance and quality of the interactions with the children was reiterated in TAs' weekly diaries. Over 90 percent of the comments were positive. Interactions with children were usually friendly, with children described as polite, helpful and delightful. TAs found that the children were usually well motivated and that it was a pleasure to work with them. The following comments reflect the importance TAs attributed to this aspect of their work for gaining deeper insights into children's thinking and processing approaches, the importance of establishing rapport and the benefits of one-to-one time with children:

Even the "characters" have willingly obliged in all tasks – I'm working on ways I can use "this" to turn around some of the characters in my own class. Perhaps the video? Types of tasks?

I have found it very interesting to observe different groups of children and the strategies they're using to solve the same problems. I have been interested in finding out more about learning styles and would like to pursue this when I return to my class.

I've also found it interesting to observe how important the teacher's role is to keep some groups focused on the task and how well other groups can do when given the time to follow their ideas.

All children...have shown how their attitudes to learning and individual learning styles closely affect their progress through the tasks. Some children showed that attributes of persistence and application often are the key reasons why they eventually succeed. Others who have high expectations of their performance and desire to be right and do well are sometimes hampered by this very attribute.

Able to observe "whole child" which therefore makes it a lot easier to target any barriers to learning the child may have.

One to one gives a nice picture of a child. It doesn't take long to find weaknesses, strengths, etc. This is so important to establish rapport. I discovered that I can do this with any child ... This was a nice discovery and confidence enhancing.

Allowing children even more time for thinking seems the most significant idea this week, highlighted by one child. Too often in normal classroom practice we are unable to give extended time for this purpose because of time constraints and the pressure of getting everything done. Perhaps this should be reconsidered.

*Visiting a number of schools*

The rare opportunity to see other schools' systems (40%), and to use these visits as a basis for comparison of teaching, assessment and administration (16%) were the most important reasons given for the ratings to visiting other schools, whether these were "enlightening or depressing". The overview that the visits allowed (7%) "made us realise how limited our perceptions of New Zealand education can become." New ideas for teaching (7%) and discussions with staff were further important factors (7%).

The quality of the interactions with the staff, and to a lesser extent, with parents of the different schools TAs visited, and the insights they gained with respect to these were revealed in comments written in their weekly diaries. Most comments (137) indicated a pleasant experience with teacher interactions, e.g., "very good ... a positive climate". However, the level of interest shown by staff in different schools was variable. In the main, comments suggested that staff showed interest in NEMP (90), but a significant number indicated little interest (50). The "overload" factor, a lack of a good understanding of NEMP, and pressures of work were seen as the prime reasons for the latter. The following comments illustrate the nature of these interactions and the benefits the TAs gained in return:

Initially J and I were treated with caution by staff. But after providing a brief overview on Monday and assuring teachers that the focus wasn't on them, they warmed considerably.

Teachers either not interested, felt embarrassed by their lack of knowledge of, or were intimidated by national monitoring.

One or two teachers viewed us as a close relative of ERO and expressed concern about what we were testing and what outcomes would reflect on them.

Teachers in some schools seem over-burdened. Don't want to hear about "another thing".

Have enjoyed chatting about school topics, comparing and contrasting my own school situation.

Interested, but I am surprised at the lack of knowledge about NEMP and its purposes amongst teachers/Principals.

I had the opportunity to talk with staff at the morning tea we helped to provide (about NEMP) ... one teacher spent a whole lunchtime

sharing what they are going to set up by way of school system on assessment.

*"Time out" from own class*

Teachers generally felt that time away from their own class had been of benefit to them (49%), for reasons ranging from being "as good as a holiday", to being free from demands and stress for a while. Typical comments were: "my creativity's beginning to return"; "I didn't realise how stressful teaching was until I had to go back"; "no pressure, no after hours, and heaps of laughs with my partner"; "[I] can enjoy my own teaching again."

Having time to reflect on teaching and on the future was again mentioned (18%) – "it allows a more objective assessment of your own practice." Important decisions were made, including resigning and seeking a new career path.

While some may have found the "professional gains outweighed missing [their] own class", not everyone found the time out worked in their favour (5%). For example, one TA "didn't quite have time out, as [I was] still in close contact with [my] own school (Assistant Principal) – paperwork and staffing decisions." Another found that the class had "slipped back a lot"; for another it took four to five weeks for the class to resume their old routines. Several TAs missed their classes and "a huge part of their learning."

*NEMP reports of results*

Most comments indicated that the NEMP reports were seen as useful for applying in the classroom, in either assessment or in teaching, and as a guide to improvements (21%). The reports "enable us to 'prove' our findings and educate." The general impression was that the reports are of high quality, interesting, relevant, and worthwhile (21%), looked forward to (11%), and essential for an overall view (12%) – "we can see the results in context and how we're faring with our curriculum content."

A small proportion of teachers (7%) commented that they would now have a better understanding of the reports or were encouraged to now read them having been involved in NEMP as a TA. Several teachers identified the difficulty a teacher would have to actually find the time needed to read them.

*Assessment ideas*

The importance of NEMP for providing ideas for assessment tasks which could be used in their classroom or within their school is reflected in the ratings reported in Figure 1. The majority of teachers had gained general ideas about assessment, for example: "I have a better understanding of assessment practices and how they can be built into existing programmes. Keeping them simple!"; or adopted specific assessment tasks for their use, "Fabulous, easy to use ideas back in the classroom – were fun but appropriate and easy to evaluate", "have adapted and used many, school-wide and in own room."

The weekly diaries revealed numerous insights and understandings about assessment gained by TAs. Comments related in the main to:

- *The quality/value of the assessment tasks and resources* (142): "Use of physical resources to simulate real life", "Clear and easy to follow", "Attractive to the children", "Activities where students have to think up their own questions or things they'd like to find out ... are a useful window on children's thinking."
- *Tasks/ideas adaptable for classroom/school* (119): "Many of the activities, especially question forming and prediction, I will use as teaching points in my class ... shown up as an area where children are poor"; "Gave good ideas (especially booklets) for independent tasks in maths which cover all stands [of the curriculum]."
- *Assessment ideas* (65): "Have to leave children to work it out for themselves longer than I would usually – and they do better than I expect sometimes. In my own class I should be letting the children explore the challenge for longer before 'rescuing' them."; "It's given me a great idea about where my next year's Y5 children are coming from (end of Y4). What a great way to prepare for a level of teaching! This would be so much more valuable than hours of record keeping to hand on to the next year's teacher."
- *Tasks easy to administer* (48);
- *Teachers gaining confidence* in setting up and administering tasks (38);
- *Impressive organisation* of tasks/material/administration (34): "Overall organisation was superb – everything allowed for in training, travel, etc."
- *The variety of assessment practices* (33): "The short and well-varied nature of activities ensured that intense concentration was maintained."

- *Value of use of video* (33): "Students were not hampered by reading problems when the video was used."
- *Students' lack of knowledge* (29) "NEMP has emphasised basic general knowledge important to New Zealanders, e.g., being able to describe the New Zealand flag, Treaty of Waitangi, knowledge of historical events. These tasks have exposed a real lack of knowledge and therefore I'm absolutely determined to change part of my programme to include such things that are important or have been lost in the new Social Studies curriculum."
- No "right"/"wrong" approach (7); "No pressure to 'get it right', but that the emphasis was on performance-based assessment."

The value of undertaking the assessments for gaining insights into how children think and problem-solve is expressed in the following comments:

I feel better qualified to teach now, after observing so closely, for so many hours, the way children approach tasks. The experience has taught me to be more patient with children who just need more time and practice with a particular concept, or moreover to put aside more time to help them advance in their understanding in the classroom. This will mean ignoring all the external pressures which interfere with teaching.

Learnt more this week (about) the abstract or lateral responses of pupils. Also the need back in own school to ensure questions are open, specific, and not to presuppose answers and to refocus, reprompt.

Keep finding that's how someone in my class learns or thinks. I know how to help them now.

*The benefits of the NEMP experience*

The benefits of the NEMP experience for TAs were further identified through a series of questions which asked the TAs to relate the most, and least positive aspects of their work as a TA, their confidence to carry out their NEMP responsibilities, their ratings of the PD gained and what they had been able to achieve on their return to school.

*The most and least positive aspects of work as a TA*

The most positive and least positive aspects of working as a TA have been summarised in Table 1.



Table 1 The most positive and least positive aspects of working as a TA

Aspect	% (N=152)
<i>Most positive</i>	
Interaction with children (in small groups or one-to-one)	98
Broadened knowledge of/insights into assessment	46
Opportunity to visit a variety of schools/meet other teachers	42
"Time out" – to reflect – lack of personal stress	35
Working with a (NEMP) colleague	18
Talking to teachers/parents about NEMP	18
General personal/PD	18
<i>Least positive</i>	
Monotony of tasks by fifth week	19
Unfriendly schools/suspicious staff	26
Being unable to help children	11

The most commonly cited positive for teachers was being able to work with children in small groups, or one-to-one "especially with those perceived as difficult and unlikely to cooperate." This "made a pleasant change from classroom work – [was] more personal", "was a luxury [they] don't usually have" and allowed them "time to listen to their [the children's] ideas" without being interrupted. Working so closely with children provided "insights into different problem-solving techniques" and allowed children to "perform well in [a] stress free environment." For some the benefits were from observing how "children felt special", "how children deemed 'slow' grew in confidence and succeeded." One TA described it as a "quality learning experience for all."

The opportunity to visit a variety of schools and speak with other teachers allowed the TAs to gain valuable ideas about assessment, administration and education and prompted them to "explore their [own] systems and philosophies." One TA commented that the "contrasts between schools puts aspects of [their] own school into perspective", while another said that s/he "certainly appreciated what I had more, having seen other schools and other children." Similarly, working with a NEMP colleague was valuable for support, "bounc[ing] ideas off", the opportunity to complement each person's strengths, and for a number of TAs they "made a new, close friend."

"Time out" from the routines and demands of the classroom, to reflect on their professional practices (or their future), and to be in a more stress-free environment was another important benefit of the NEMP experience. For one TA, s/he hoped it allowed "time to let my employers see the gap I left when I wasn't at school."

A number of TAs commented on insights/knowledge they gained in relation to assessment itself. One TA found NEMP provided a reminder of the importance and value of assessment, another realised that it is more appropriate "choosing key representative skills to assess" rather than every objective from the curriculum; another was "more able to appreciate what constitutes an appropriate task", while for a third TA "realising that assessment needn't be written" was important. TAs also improved their questioning and audio-visual skills and gained ideas for assessment they could use in their own classrooms from the NEMP tasks they were administering. NEMP tasks were seen to provide "good models for classroom; refreshing/reflective."

Being a TA also contributed to teachers' PD in a general way as well as in relation to NEMP specifically. For example, TAs commented on improving their management skills (for example, running meetings, time management, administration); their interpersonal skills with children, the community, schools, and parents; and their self confidence "... accepting a new challenge/trying something new – feeling the fear and doing it anyway!"

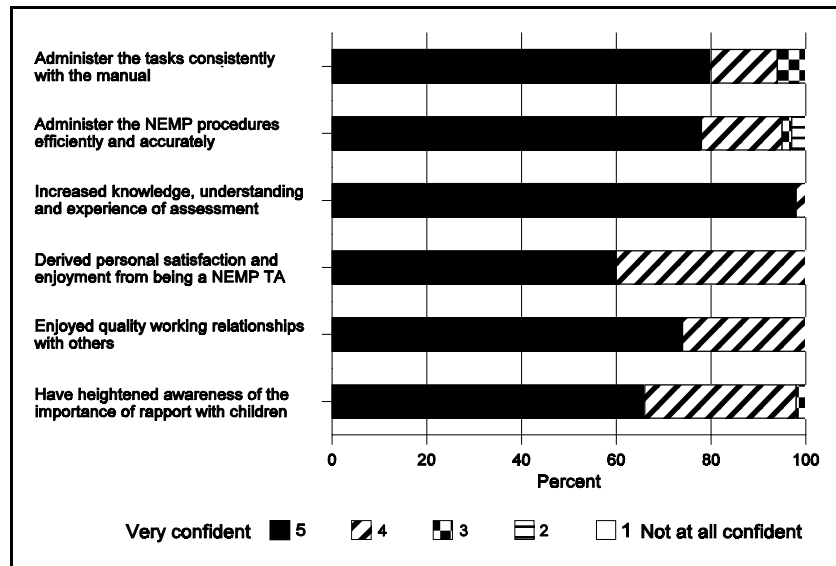
The number of responses in relation to the least positive aspects of their work as a TA was very small in comparison. Unfriendly schools and suspicious staff were a source of discontent for a number of TAs. These reactions generally seemed to arise out of a lack of understanding about NEMP. For example, fears were expressed that "students' performance might reflect on [their] own teaching" and "we were from ERO (Education Review Office)." Some TAs (19%) complained that after five weeks of administering the same tasks, the job had become monotonous; some were troubled by being unable to help children being assessed. To give feedback proved uncomfortable for a small number because "some children thought they were failures and needed to be shown they weren't" or "holding back's the hardest thing."

#### *Teacher confidence in aspects of NEMP*

TAs were asked to indicate on a 5-point rating scale how confident they felt in relation to a number of aspects of their NEMP experience (Figure 2). TAs were almost universal in their confidence of their

increased knowledge, understanding and experience of assessment. Almost 100 percent rated this as “very confident”. At only slightly lower levels (but still overall very high) was TAs’ confidence with respect to administering assessment tasks according to the manual, efficiently and accurately. In addition, TAs’ level of satisfaction with being part of NEMP, enjoyment of quality working relationships with colleagues and appreciation of the importance of rapport in assessing children were similarly consistently high.

Figure 2 Level of teacher administrators’ confidence with aspects of their NEMP experience



*Teacher administrators’ ratings of the professional development through NEMP*

TAs were asked to indicate on a 5-point scale: (i) how they would rate the PD they gained from their work as a NEMP TA in comparison with other types of PD; and (ii) to indicate how important the different aspects of the NEMP experience were.

Ninety-six percent of the TAs who responded (N=53) rated the PD from NEMP as 4 or 5 on the scale from “extremely high” (5) to “extremely low” (1). The mean rating was 4.53.

A variety of reasons were given for this level of satisfaction: it allows time to reflect on assessment (6); one can immediately apply what has been learnt (5); enjoyment (4); greater self confidence (4); allowed a hands-on experience (4); a greater awareness of the place of assessment in teaching and learning and insights to be gained (8); and it provided comprehensive training/allowed sustained practice (3).

While one teacher commented that “it’s not designed to be PD that can be transplanted back into one’s own classroom”, the vast majority of TAs who responded expressed rather different sentiments. Several teachers made particularly poignant statements about the impact of NEMP on their PD:

Greater confidence in talking about “assessment” having had this experience. The whole issue of how we assess has worried me for some time ... but now I feel I am able to use this information [PAT Maths] wisely and stand firm with my beliefs about assessment practices and procedures. This experience has helped me tremendously – not only adding credibility when I talk to parents and teachers, but also setting up soundly based policies for the future.

Never encountered such superb organisation or sound knowledge of school and children at a practical level. There hasn’t been the frustration of feeling we were dealing with theorists.

The effect has been dramatic and I believe it will be long lasting. After almost 20 years teaching and an endless list of forgettable courses this came at a very good time. I had experienced two hard years and was feeling “shell-shocked”. This gave me the boost I needed.

*Work back at school*

TAs were asked what particular ideas, practices, innovations, changes, etc., gained from their work with NEMP they had been able to adopt in their class or school on their return to school.

While 25 teachers reported that there had been insufficient time (at the end of the year) to implement any changes to their assessment or teaching practices, as they were involved with other responsibilities, such as supervising teacher trainees in their classroom, or end-of-year activities (camps, concerts, report writing) or had not returned to the classroom, the remaining 37 teachers identified a wide range of practices they had put into place. Over twenty comments related to

changes/insights into aspects of assessment more generally, such as: being more aware of their questioning techniques (5); being selective in the assessment objectives assessed (3) – “smaller, specific tasks”; an appreciation of how simple some activities can be, how easy to administer and mark (3); the use of a video camera (4); and trying to provide higher quality resources, tasks and learning activities (2). The nature of some teachers’ reflections on assessment at this stage is illustrated through these comments: “assessment needs to be practical, ongoing and manageable”, and “the validity of assessment needs to be worked on.” However, one teacher lamented:

[I] reflected on [my] own data gathering methods when updating children’s records, but the realities soon sink in: class size; gathering, recording, analysing data consumes time; haphazard way the new curriculum documents have been produced; lack of inservice support.

Nineteen teachers had focused on a particular curriculum/skill areas in their teaching based on shortcomings they had observed in children they had tested, for example, general knowledge in social studies, problem-solving, famous New Zealanders, basic research skills, active listening skills, basic maths and computation skills, decimals and fractions, etc. One TA related this example:

Have initiated a new, more refined system for Maths. Had previously had Maths boxes for each group to select extra activities from. Now rotate one-to-one, station, team and independent activities. This allows more scope with revision as well as practice of current teaching. Children love it because of the variety. I love it because I have a better opportunity to track each child’s progress.

Six teachers commented that they had been able to share their ideas/insights with their colleagues, for example:

As leader of assessment at school, [I] have introduced [the] idea of benchmark type tests at J2/S2/S4 so as to allow teachers to monitor and use their time for more teaching.

Set up an evaluation of our measurement teaching in Maths.

I floated [the] idea of an exemplar book to demonstrate benchmarks and give teachers further guides of assessment.

A small number of teachers had expressed a greater awareness of the need to allow children the time to actually make responses to questions,

rather than giving them the answers; “listening to children’s responses more carefully and waiting for them to respond.”

Several months after being back in the classroom, the responses from 61 teachers included 100 ideas that had been put into practice. Half of these were relatively unique to particular teachers; the other half had been adopted by at least several teachers. The most commonly adopted ideas related to:

- *Developing a wide range of assessment tasks* (27), for example: “practical tasks involving equipment; measurement; getting children to explain their thinking; planning and interpreting statistical investigations; clarifying what tasks demand; tying assessment closely to achievement objectives”;
- *Using group/team work/assessment* (13); school-wide benchmarks/exemplars/data, including annual school wide assessment of particular skills (11), such as, a school-wide science assessment using NEMP activities, a cycle of reviews following the cycle of NEMP assessments, and looking at 2-3 curriculum areas per year, using some NEMP tasks;
- *Specific ideas for curriculum areas* e.g., social studies, reading (28);
- *Video/audio taping of tasks* (7).

## Discussion

The evidence is clear from the data provided that the PD benefits of the NEMP experience were numerous, broad and multi-faceted, and reflect the spectrum of benefits highlighted in the literature (Dewar & Bennie, 1996; Donn, 1995; Renji, 1998; OECD, 1998; Watters & Ginn, 1996; Zeegers, 1994). The most substantive benefits relate to personal and professional factors, general and specific teaching/ curriculum factors, and specific and general assessment factors.

### *Personal benefits:*

- Increased self confidence
- Increased self esteem
- Emotion and stress relief
- Re-energizing from a “sabbatical”
- Revived motivation for teaching.

**Professional benefits:**

- Confirmation of the quality of their own teaching
- Feeling valued as professional/"expert"
- Collegial support (other teachers, NEMP)
- Interaction with other teachers
- Sharing of ideas with colleagues
- Valuable "brownie points"
- Being able to reflect on their future, teaching and assessment practices
- Increased desire to be involved in NEMP again, as a marker, or in the next cycle.

**Teaching/curriculum benefits:**

- Slowing the pace of teaching and learning/giving children time to think and respond
- More "open-minded" about teaching
- Awareness of gaps in children's knowledge and skills
- Resources/ideas gained for other curriculum areas.

**Assessment benefits:**

- More informed about assessment
- Contributions to school-wide assessment policies and practices
- A greater appreciation of the balance required between the quality versus quantity of assessment
- A greater appreciation of the balance required between the assessment of process versus product
- Heightened awareness of the importance of establishing rapport with children
- Use of technology – especially video equipment
- Improved interview/questioning techniques
- Awareness of the importance of instructions
- Use of co-operative, group assessment
- Use of open assessment formats
- Use of "manipulatives"/"visual" forms of assessment
- Specific training for the standardised administration of assessment tasks.

As Zeegers (1994) also found, many benefits were relatively unique to individual participants as evidenced through the numerous and very wide range of comments received (these have not been presented).

Clements and Staessens (1993) contend that "the more positive learning experiences teachers have, the more progress they make in their professional development" (p. 133). There is no doubt that the NEMP experience is a very positive learning experience for teachers and it contributes in significant ways to their PD.

The full extent of the PD from the NEMP experience has not been explored in this paper. Other data collected throw light on two additional significant areas of the PD gained. The first relates to changes and improvement to practices in the classroom or school (Burgess & Galloway, 1993; Campbell, 1997). This is explored through case studies. The second relates to the spin-offs for others, such as students, colleagues and schools (Campbell, 1997; Hollingsworth, 1996; Ministry of Education, 1996; Renyi, 1998). A number of TAs commented on differences they had been able to make to school-wide assessment practices, such as, "now have an influence with staff and can make changes. Already my suggestions are making changes school-wide"; "on return ... joined the Assessment and Evaluation Committee at school – gave ideas on types of school-wide assessment"; "gave time to develop model systems for [the] school."

The spin-off impact of the NEMP experience for others and the factors which may facilitate or hinder this process; and actual changes to practice which result are matters which need further investigation.

**Note**

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**References**

- Bergeron, B., Wermuth, S., & Hammar, R. (1997). Initiating portfolios through shared learning: Three perspectives. *The Reading Teacher*, 50(7), 552-562.
- Burgess, R., & Galloway, S. (1993). Does in-service education have an effect on classroom practice? In R. Burgess, J. Connor, M. Galloway, M. Morrison, & M. Newton (Eds.), *Implementing in-service education* (pp. 168-173). London: Falmer Press.
- Campbell, B. (1997). Professional development – Beyond the one-day serving. *The Practising Administrator*, 2, 26-35.
- Clement, M., & Staessens, K. (1993). The professional development of primary school teachers and the tension between autonomy and

- collegiality. In F. Kieviet & R. Vandenberghe (Eds.), *School culture, school improvement & teacher development* (pp. 129-152). Leiden: DSWO Press, Leiden University, Netherlands.
- Crooks, T., & Flockton, L. (1993, August 9). *Some proposals for national monitoring of education outcomes*. Unpublished paper, University of Otago, Dunedin.
- Dewar, S., & Bennie, N. (1996, November). An evaluation of some of the professional development programmes delivered in 1995/96. *Bulletin No. 7*. Wellington: Ministry of Education, pp. 68-77.
- Donn, M. (1995, December). Professional development programmes for teachers: An evaluation of some of those held in 1994/95. *Bulletin No. 6*. Wellington: Ministry of Education, pp. 36-46.
- Flockton, L., & Crooks, T. (1998). *Mathematics assessment results 1997: NEMP Report 9*. Dunedin: Educational Assessment Research Unit, University of Otago.
- Hollingsworth, H. (1996). Change trajectories in teacher professional growth. In P. Clarkson (Ed.), *Technology in mathematics education* (pp. 290-297). Mathematics Education Research Group of Australasia.
- Louden, W. (1995). Best practice in professional development. In *Professional practice and student outcome statements* (pp. 39-46). Conference proceedings, National Professional Development Conference, Churchlands, Edith Cowan University, Western Australia.
- Lovett, S. (1995, December). Professional development – A career-long quest. *New Zealand Journal of Educational Administration*, 10, 21-25.
- McAlpine, D., & Poskitt, J. (1996). *Evaluation of professional development programmes: School management. Final report*. Palmerston North: Educational Research and Development Centre, Massey University.
- Ministry of Education. (1996, June 17). Curriculum update – A report on professional development. *Professional Development*, 14, 1-8.
- Organisation For Economic Co-operation And Development. (1998). Teachers for tomorrow's schools. *Education policy analysis*, Paris: Centre for Educational Research and Innovation, OECD, pp. 25-39.
- Renyi, J. (1998, February). Building learning into the teaching job. *Educational Leadership*, 70-74.

- Robertson, J. (1992, November). Professional partnerships – A New Zealand model of principals' professional development. *New Zealand Principal*, 7(3), 20-21.
- Scott, M., & Murrow, K. (1998, May). An evaluation of some of the professional development programmes undertaken in 1996/97. *Bulletin No 8*. Wellington: Ministry of Education, pp. 103-113.
- Sparks, D. (1995, Winter). A paradigm shift in staff development. *The ERIC Review*, 3(3), 2-4.
- Staessens, K. (1993). The professional relationships among teachers as a core component of school culture. In F. Kieviet & R. Vandenberghe (Eds.), *School culture, school improvement & teacher development* (pp. 39-54). Leiden: DSWO Press, Leiden University, Netherlands.
- Stanley, D. (1995, November). Teacher professional development for information technology in the school curriculum. *Computers in New Zealand Schools*, 3-6.
- Watters, J., & Ginns, I. (1996). An in-depth study of a teacher engaged in an innovative primary science trial professional development project. *Research in Science Education*, 27(1), 51-69.
- Zeegers, Y. (1994). Teacher professional development: Which aspects of inservice do teachers believe influence their classroom practice? *Research in Science Education*, 24, 358-365.

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