Personalised, Contextualised, Professional Learning Development: Putting it into Practice

Hazel Owen, Ethos Consultancy

Abstract

Research, such as that collated as part of the New Zealand Ministry of Education's (MoE) Iterative Best Evidence Synthesis (BES), indicates that regular Professional Learning and Development (PLD) for educators can have a positive effect on the quality of teaching and, in turn, on outcomes for diverse students. PLD, though, needs to offer flexibility of choice, time and approach, and to value personal theories and experiences. Learning should be accessible (both physically and design-wise), cumulative and relevant, and couched within an active community of practice (CoP).

A pilot to develop a Virtual Professional Learning and Development (VPLD) model that offered personalised, contextualised PLD was initiated by the New Zealand MoE. The project focused on primary and secondary school teachers, although one tertiary teacher participated. This paper provides an overview of the VPLD pilot (2009–2010) while also synthesising main findings from the in-depth evaluation conducted during the pilot and summarising some of the lessons learned.

In brief, results suggest that there are affordances built into the VPLD model that encourage and enable education practitioners to develop at their own pace, in a supported, supportive environment, with access to all that they need to scaffold their learning journey. Thus, if it is accepted that student outcomes can mirror practitioner performance (although this is a somewhat simplistic relationship), it would follow that, if practitioners can be mentored and guided in their own continual development and thinking around learning and teaching, there is potential for the overall learning experience for students to be enhanced.

Keywords: communities of practice; e-learning; personalised learning; professional learning and development; virtual learning

Introduction

Research such as that collated as part of the New Zealand Ministry of Education's (MoE) iterative Best Evidence Synthesis (BES, see http://www.educationcounts.govt.nz/topics/bes), a collaborative synthesis of research evidence developed to inform education policy and practice in New Zealand, indicates that regular, lifelong, life-wide Professional Learning and Development (PLD) for educators can be efficacious. In this paper, PLD refers specifically to the provision of opportunities for all education staff to partake in appropriate professional learning in which the ultimate aim is to enhance student learning experiences. Because of its influence on shifts in teaching practice, PLD has been identified as a key factor in the achievement of quality outcomes by a diverse range of students (Timperley, 2008).

However, PLD has been offered in a variety of formats—some of which have proven more effective than others. One common example is a series of institution-wide workshops for which disparate groups come together in a classroom setting for a period of time ranging from an hour to several days (St John & Wilkerson, 2006). A number of issues can be observed:

- Short workshops do not encourage participants to form lasting communities of practice (CoPs).
- When a teacher becomes enthusiastic about an initiative or skill, lack of encouragement from peers can lead to a sense of isolation.
- Even when workshops use collaborative work there is little authentic knowledge co-construction, ongoing collaboration, or problem solving.
- Short exposure to a theory, approach, skill, and/or tool gives only a surface insight into how, when, and where to apply it.
- Skills learned in workshops are often not practised or applied meaningfully to a personal context during the workshop and are thus forgotten or considered irrelevant.
- Timetables, location, and workload can make it difficult for teachers to attend face-to-face workshops.
  (Adapted from Owen & Schwenger, 2009)

A pilot to develop a Virtual Professional Learning and Development (VPLD) model that trialled a combination of PLD approaches was initiated in October 2009 by New Zealand's Ministry of Education (MoE), who also funded the project. The project focused on primary and secondary school teachers, although one tertiary teacher participated. The five principle objectives were to:

1. focus on contextualised, personalised learning for educators
2. foster CoPs that would encourage collaborative relationships and enable co-teaching and co-construction
3. develop an approach to PLD that is underpinned by mentoring
4. raise student achievement of learning outcomes, partly by encouraging a strong student focus, as well as through overt links to curricula and National Certificates of Educational Achievement
5. be sustainable (financially and environmentally) and scalable.

This paper provides an overview of the VPLD pilot initiative (2009–2010), syntheses the main findings that emerged, and summarises some of the lessons learned.

Literature review

Research suggests that a range of factors significantly contribute to students' improved achievement of learning outcomes (St John & Wilkerson, 2006). These factors include (although are not limited to) educators' teaching practices and belief systems about learning and teaching (McKenzie & Turbill, 1999). In 2003, for example, evidence from research conducted in New Zealand indicated that "up to 59% of variance in student performance is attributable to differences between teachers and classes" (Alton-Lee, 2003, p. v). Other literature describes a direct relationship between PLD interventions and significant improvement in student achievement of outcomes (Adey, 2006; Parr, Timperley, Reddish, Jesson, & Adams, 2006; Thomas & Tagg, 2005). However, caution is advised when assuming a direct relationship between shifts in teaching practice and positive learning outcomes for students. For instance, the findings of Harwell, Gunter, Montgomery, Shelton, and West (2001), and Gottfredson, Marciniak, Birdseye, and Gottfredson (1995), illustrate instances in which teachers reported improvements in efficacy, whereas there were measureable mixed or negative effects on student outcomes. Furthermore, there is discussion about what actually constitutes meaningful learning and achievement (Timperley, Wilson, Barrar, & Fung, 2007), and there is also a growing body of

evidence that some approaches designed to measure the effect of PLD on student outcomes can be problematic (Timperley & Wiseman, 2003).

It has been reported that PLD has resulted in the enhancement of a wide range of desirable teacher outcomes. For example, Ham's (2009) report, *Outcomes for Teachers and Students in the ICT PD School Clusters Programme 2005–2007,* indicates that significant outcomes included effects on teachers' understanding about principles of teaching as well as their own teaching practice. In turn, there was an increase in confidence and enthusiasm on the part of the practitioners, a better understanding of student-centred teaching, and an augmented ability to meet a greater range of student needs. These results suggest that the teachers who participated in the PLD were more aware of, and better equipped to create differentiated learning experiences for, the diversity of learners across New Zealand (Alton-Lee, 2003).

The characteristics of PLD that are most likely to have the greatest levels of adoption and sustained use, as well as having a positive effect on learning outcomes for the majority of learners (Timperley et al., 2007), are contested. Effective PLD is frequently described as that which is designed around a long-term plan to foster active exploration and application, reflection (Shea, Pickett & Li, 2005)—especially where practitioners are encouraged to consider their students in a new light (Timperley et al., 2007)—and development of conceptual frameworks. Easy access to peers, mentors, and resources is paramount, as are peer critique (Mayes & de Freitas, 2004) and involvement in a variety of tasks (Kublin, Wetherby, Crais, & Prizant, 1989). These factors can be complemented by Computer Mediated Communication (CMC) in general, and synchronous communication in particular (Tu, 2004) because of their ability to empower educators to decide when and with whom they collaborate (Sharples, 2000).

Cognition has been shown to be influenced by emotional, social, and cultural contexts as well as access to information (Timperley et al., 2007). Sociocultural considerations are therefore inextricable from the design of effective PLD; this is particularly so for a practitioner's work-context, which will include history, customs, rituals, and narratives that help define their education community (Stoll, McMahon, & Thomas, 2006). Contextualised PLD has been reported to have a positive effect on student learning outcomes because there is a direct connection between principles of effective teaching and the adaptation of those teaching practices to local circumstances. When such an approach is employed, teachers are more likely to apply strategies to address known issues relating to student learning in their specific learning community (Timperley, 2008). Also, from a practical stance, given that "the everyday demands of work are always likely to take precedence over any staff development" (Milligan, 1999, p. 17), PLD needs to be flexible and integrated into what a teacher is already doing, rather than additional to it.

Communities of practice (CoPs) are frequently referred to in formal education contexts. The theory of CoPs was developed in the latter half of the 1980s and in the 1990s by Lave and Wenger, and has since been extended (e.g., by Hildreth, Kimble, & Wright, 2000) to encompass the notion of 'situated learning' whereby practitioners construct meanings collectively in a community (Wenger, 1998). CoPs are differentiated from other social groups by having a practice and associated communal identity, a shared vision, explicit and implicit roles, procedures and rules, and mutual knowledge and learning (Duncan-Hewitt, & Austin, 2005). When CoPs are an integral part of PLD they can provide formal and informal learning opportunities. They also provide a space for practitioners to participate in conversations about learning and teaching and share practices (Brown & Duguid, 2000), and to develop supportive professional networks (Wenger, McDermott, & Snyder, 2002).

Overview of the VPLD programme

The VPLD pilot was initiated in 2009 by the MoE, who appointed a national facilitator. The pilot was formed to develop the capability of 10 New Zealand educators and to devise a model that would inform implementation and roll-out of the VPLD. The integral principles and aspects of the VPLD initiative are described briefly in the following section.

The VPLD pilot sought to foster the formation of a CoP with nine secondary and primary school teachers and one tertiary teacher. These practitioners worked in a variety of locations ranging from Kaitaia to Canterbury, and were from a range of disciplines (see Figure 1). The practitioners were from diverse backgrounds, ethnicities, and cultures.

Figure 1 VPLD participants, locations, and disciplines (underlying image by JayVeeAre, 2010)
http://www.flickr.com/photos/jayveeare/4970153643/)

The VPLD was designed to offer flexibility of choice, time, and approach, as well as to value personal teaching theories and experiences. Theory and practice were connected, while also making professional learning accessible (both physically and design-wise), cumulative, and relevant. Encouraging reflection, trial, and practice in a 'safe' environment, sharing experiences, small-group collaboration, and trialling new strategies were included, which, it was felt would, in turn, encourage greater engagement, ownership, and confidence.

After the initial formation of the VPLD community, the national facilitator, assuming the role of mentor, worked with the 10 educators to develop individual learning plans and to discuss details of mutually agreeable expectations of the quality and nature of participation in the VPLD initiative. Learning outcomes were negotiated by the participants, and the skills that they identified as important related directly to the students with whom they were working.

Each educator met with the mentor online using Adobe Connect (a web-conferencing tool that enables interactive synchronous communication) or Skype once a month for 45 to 90 minutes. These exchanges were complemented by interactions in an online social networking space (Ning, http://virtualicteltpd.ning.com/), and through access to their own 'sandpit' courses in the MoE

learning management system, Moodle (http://vpd.vln.school.nz/). During monthly meetings a variety of subjects were discussed—including pedagogy, what the educators had been working on with their students, student learning outcomes, and how their students had reacted. Participants also identified areas of support they needed. This provided an opportunity to encourage self-access to resources, or to provide 'just in time' tailored feedback, or upskilling using personalised 'how to' videos or audio and written critique. Participants were encouraged to record self-reflections (either on the VPLD community Ning site, or via other platforms of their choice), and urged to offer each other comments, suggestions, and encouragement. Participants were also encouraged to submit a short monthly report (150 to 300 words) that gave an overview of their activities, reflections, and 'next steps'. There was therefore a focus on awareness of needs, as well as opportunities for co-constructing new belief systems about learning and teaching (Bishop, Berryman, Cavanagh, & Teddy, 2007).

Further research has indicated that an integrated model of virtual professional development that relies on collaborative learning and working is likely to require an initial face-to-face meeting. In part this provides an opportunity to establish working relationships (Milligan, 1999), and is especially useful as an aid to social cohesion, especially if educators are unfamiliar with participating in an online community and/or via CMC. As part of the VPLD pilot there were two face-to-face meetings—one in December 2009, and the second in June 2010. Alongside the face-to-face meetings a variety of community-building strategies were employed, such as sending out a monthly newsletter that highlighted discussions and contributions in the online community Ning space and events and issues from further afield, as well as showcasing the work of community members and celebrating successes. There were also all-community web-conferencing sessions, either to mark, for example, the end of the year, or with a specific pedagogical and/or skills focus, such as facilitating online web-conferencing sessions in Adobe Connect. A few members of the wider education community were invited to join the VPLD Ning and were encouraged to actively contribute.

Evaluation of the VPLD programme

The study focused on evaluating the efficacy of the design of the VPLD. The main questions underpinning this pilot study included:

- How are participants' opinions of the value of the VPLD pilot affected by participation in the VPLD CoP?
- How does working with a mentor affect participants' opinions about their own efficacy and teaching practice?
- Which external factors have an effect on access to and satisfaction with the VPLD pilot programme?
- What are the observed effects on participants over the course of the VPLD programme?
- What are participants' opinions about the effects of shifts in their teaching practice on their students' achievement and engagement?

To explore the questions above, it was necessary to generate a rich, examinable body of data that would permit an in-depth investigation into the design and facilitation of the VPLD pilot initiative, including influential external factors. In terms of the whole trial, a process of constant comparison was used to analyse the data. The study collected mainly qualitative data from a wide range of sources, and tools used to collect data included (but were not limited to) online surveys, blog postings, discussion-forum postings, chat history, recordings of the synchronous sessions in Adobe Connect, and emails. The most comprehensive data was collected via online surveys, Adobe Connect recordings, and activity in the VPLD online community spaces. A full description of the processing of all the data is beyond the scope of this paper. However, the two

points below briefly describe how the data was processed; they are followed by a more in-depth description of the surveys.

1. The only *quantitative data* collected was from three surveys (January 2010, June 2010, and December 2010). This data was exported into Excel, analysed, and interpreted.
2. A *qualitative approach* was used to interpret the 1) open-ended survey responses, 2) activity in the VPLD online community spaces, and 3) the Adobe Connect recordings. Recurring words were noted as possible emergent themes and used as codes. Comparative methods of analysis were used during coding (Charmaz, 2008).

Surveys

In January 2010 an initial 9-item survey was administered to all 10 participants to collect information about participants' positions in the VPLD initiative with regard to teaching/learning situation, philosophy, and technical expertise; to collect feedback that would be used to inform similar future initiatives; to clarify how participants planned to engage in the initiative; and to gauge participants' commitment to contributing collaboratively in the online community.

In June 2010 a survey was also administered online to, and completed by, all nine teachers who attended the face-to-face meeting in Wellington. Designed with mainly open-ended questions, the survey aimed to gain a fuller understanding of the experiences of the VPLD teachers during the first 6 months that VPLD was implemented. It also gathered suggestions for the future model of VPLD in general, and the face-to-face meetings in particular.

In early December 2010 a final survey was administered online to all 10 practitioners, and was completed by 9. The 15-item survey was designed with mainly open-ended questions that aimed to record the opinions and experiences of the VPLD teachers during the pilot VPLD initiative, and to encourage reflection about student engagement and achievement of learning outcomes. Comments and suggestions for improvements were invited in connection with the VPLD model design and implementation.

Main findings and lessons learned about contextualised, personalised PLD

The VPLD programme was piloted with a variety of approaches and delivery strategies. A number were extremely well received, while others did not work so well. This section examines some of the main findings, and the lessons learned, as well as highlighting some of the issues inherent in a 'virtual' approach to PLD.

The in-depth evaluation conducted during the pilot charted each teacher's learning journey, from a point of initial discombobulation for some to a stage, by the end of 2010, where VPLD teachers demonstrated:

- a move toward becoming more reflective practitioners (as individuals and as a group)
- increased propensity to be professionally self-critical
- shifts in teaching approaches and beliefs about learning that influenced facilitation of face-to-face, online, and video-conference sessions, so that sessions became more student-directed and student-led
- design and creation of pedagogically sound blended programmes of learning
- evaluation/action research of student learning outcomes
- increasing engagement of students, partly through experimenting with different approaches and resources with learners and asking for their feedback
- contribution to the design and continuation of the VPLD model

- trialling of strategies, approaches, activities, and tools recommended/modelled by VPLD community members
- self-initiation of mentoring within own context(s)
- independent formation of CoPs and/or offer of mentoring and PLD to colleagues (7 of the 10 teachers)
- upskilling, and associated improvement in confidence, with specific approaches and tools.

Immersion in VPLD

While the outcomes listed above may be consistent with any well-designed PLD intervention, one positive point of difference was that the VPLD—by its very nature (mainly online)—immersed practitioners in a virtual environment. Practitioners were part of a learning environment that modelled the principles and facilitation, design, and evaluation approaches that could potentially be applied to enhance their own students' learning experience and outcomes. This immersion meant that there were opportunities for 'learning through doing', while also encouraging reflection on issues that can be an integral aspect of online learning. The CoP that underpinned much of what happened in the VPLD in turn offered a forum for developing strategies that teachers then adapted to suit their own context and students. As such, participants were encouraged to adopt new pedagogies, technologies, tools, and vocabulary partly from the 'viral' effect of sharing effective practices within a CoP (Moses, 1985); for example, one teacher mentioned that discussions with other VPLD participants "often led to evaluating tools and their impact on student achievement and I have brought that back to my classroom".

Duration and lasting value of VPLD

The extended duration of the VPLD, and the subsuming of the content, tools, and meaning of the PLD within each teacher's context appears to have had a deep, lasting effect on teaching practice. Anecdotal evidence also indicates increased student engagement; for instance, one participant felt that they had altered their teaching practice so that the "students and teacher [were] working and sharing in an environment that everyone had to cooperate and work together". Another participant commented that:

> Personally, I only need to see the achievement, attitude and engagement of my students to know that I am on the right track. Collectively we have all been finding new tools and techniques that the other team members are not familiar with, and our experiences, while unique, all have a common theme that affirms the purpose and existance [sic] of the group project.

While these observations do not refer specifically to the virtual nature of the VPLD, there is an inherent recognition of the value of community—a community that was mainly enabled by the ease of synchronous and asynchronous online communication and contribution. It could be argued that participants were influenced by their experience of being part of this community, and at least two have since sought to develop similar experiences for their students: I "intend using Adobe Connect more in this mix of synchronous and asynchronous contexts with video clips of tutorials, blog, feedback and feedforward".

However, it did take some time to recognise that while some teachers immediately started to produce visible, measurable results, others required time to process internally and become a part of the community. During this period the mentor sometimes had the impression that these teachers were less engaged. One participant wrote, "During the first 6 months I have been slack, as I experienced many hurdles initially. I did not like the fact that I was slack, and because of this I am determined to have a much better next 6 months". It was found that with consistent guidance, support, inclusion in the community, and invitations to contribute, levels of visible

engagement gradually increased in all but one instance. For the one teacher who faced frustrating technical and time barriers, engagement remained limited. In spite of their problems, this teacher chose to continue with the VPLD programme at the mid-year point. In retrospect, this was not a positive decision, because by that time the teacher appeared to have lost motivation and momentum, and there was no evidence of shifts in teaching practice or of associated effects on his students' learning experiences.

A clear example of how well the VPLD pilot was received when there *were* few barriers was, "Thanks for the opportunity. I've learned much and been inspired over time, without pressure of instant results. That's what PD should be about". However, during the course of the pilot project it became obvious that the VPLD teachers did not have equal access to the technology or technical support. This aspect was shown clearly by the responses in the December 2010 survey to the question, "What, if any, technical issues have you faced during the VPD initiative?" While five of the nine respondents had no issues with internet connectivity at their institution or at home, two had intermittent issues with connectivity at the school, one had trouble at home, and two had ongoing issues with both. Bandwidth was a problem initially for only one respondent. However, easy access to a computer, webcam, and microphone was an issue throughout the initiative for two respondents, while three had problems with technical skills. Two respondents reported issues with accessing the core online spaces used in the VPLD project, with one respondent mentioning, "Access to Nings was blocked by Watchdog[1] for some reason and took a little while to resolve".

Previous studies have shown that external factors such as those mentioned above have an extensive effect on access to, and satisfaction with, learning experiences (for example, Owen, 2010). While participants' ICT skills and experience could be augmented, some negative factors were technical (bandwidth and hardware/software) and could not be resolved by the mentor or VPLD community. There were also issues regarding schools blocking essential sites. These factors have several implications for the bigger picture of scaling the VPLD model to a nationwide initiative. Regular virtual meetings and sessions rely on video, audio, and screensharing. When ultra-fast broadband is rolled out in New Zealand, bandwidth should not be an issue. However, suitable functioning hardware (such as microphones, headphones, and webcams) has to be available. There is, therefore, an associated cost implication for the school (Shea, Pickett, & Li, 2005), and education workplaces need to alter their attitude about the rigorous blocking of sites.

A barrier that was consistently identified throughout the VPLD initiative was lack of time to participate (this is in keeping with the findings of research conducted recently in New Zealand—for example, Ham, 2009). Therefore, it is strongly recommended that the 1-hour funded release time per week (as well as the days for the face-to-face meeting(s) be provided by an educator's institution, and that each educator is enabled to choose how they would like to use this release time.

Effects of participating in an online community of practice

Although being part of the VPLD community was ranked highly by participants, membership was seen as different things by different participants. This became apparent when they were asked, "What has been the highlight, for you of being part of the VPLD community?" Responses included:

- effect(s) on student learning
- opportunity to work with a mentor

---

[1] Watchdog (previously Familynet) is an ISP that offers safe internet access to schools, families and corporates.

- opportunities to network
- provision of platforms for sharing ideas, practice, and experiences
- 'cross-fertilisation'
- access to online spaces/resources
- recognition of work and achievement(s).

Prior to the VPLD initiative several teachers felt isolated in their own school community, and were keenly aware of the apparent lack of support for and understanding of what they were attempting to achieve with students. For example, one teacher stated that, "I stand alone and feel lonely at school … No one knows what I am doing". So the sense that they were part of a meaningful community of professional practitioners was particularly important for participants. It was found that such a community enabled personalising the long-term support of participants, alongside building relationships, identifying key needs, and a consequent increase in confidence ("as I have gotten to know people in the group I have become less inhibited in contributing ideas"), 'voice', and self-direction. Furthermore, because the VPLD CoP formed over time it offered a 'sandpit'—a safe environment in which educators could 'play', thereby trialling roles and approaches before trying them with students and direct peers. However, there was also celebration of the robustness of alternative points of view that practitioners from other disciplines and sectors could bring to the community. As such, the eclectic combination of disparate disciplines and sectors helped create a coherent, supportive community. These factors were something that contributed to what Dron (2010) refers to as 'Social Velcro'—the elements that help a community to 'stick' together in a way that enables them to learn effectively, but then to unstick and reassemble. The social structures that established were underpinned by agreements about interactions, processes, norms, and rules—although these too were in a constant state of flux, and were re-negotiated, evaluated, and altered.

In any self-motivated learning environment, participants have the freedom to choose whether to engage (with or without genuine enthusiasm), and some will decline to embrace the opportunity (Bruckman, 2003). The aim with the VPLD community was to find a balance or compromise between a self-motivated socio-constructivist environment where engagement and upskilling were the ultimate rewards, and a more traditional perspective where PLD was directly linked to performance reviews and promotion. It was challenging to find the right balance, especially as work commitments ebbed and flowed for participants. One solution may be more formal recognition of engagement and contribution on top of the release time currently given (see, for example the Becta 'ICT Mark' and the Becta awards). This could help sustain enthusiasm and interest, even when there is a 'crunch point'.

Importance of a convenor in an online CoP

A reasonable level of personal and professional investment in a CoP is necessary for participants to gain a sense of staying informed, and having input around the shape and 'culture' of the community. In the case of the VPLD, the online spaces (particularly the Ning) provided a central area for discussing "ideas/concepts with others in the group", as well as a place to collate communication and resources. However, the convenor found that the online space did not sustain itself organically, and it was necessary to take an active role in assessing the needs of the community, and to initiate conversations about topics of interest, celebrate the work members were doing, and publicise relevant resources and events. During the pilot the convenor's roles included:

- facilitating collaboration
- showcasing community members' work
- writing and emailing a monthly newsletter

- locating and evaluating relevant resources made available by other teachers/education organisations
- identifying opportunities for special interest groups
- assisting with networking with colleagues and other experts
- disseminating information (e.g., events, formal learning opportunities, conferences)
- raising awareness about topical issues, findings, and theories
- coordinating opportunities to participate in online sessions/meetings.

One participant commented that "We would have been headless chooks without someone to knit us together and establish and maintain momentum". It was, nevertheless, as Hallam (2008) identifies, necessary to not bombard participants with activities, requests, information, and expectations, but rather to establish a balance between too little and too much communication, between facilitated and organic activities and contributions, and between lurkers and contributors.

Consequences of face-to-face meetings

The inaugural face-to-face meeting in December 2009 was reasonably effective, and participants commented that they had enjoyed opportunities to meet each other, revisit personal goals, share strategies and resources, discuss some key issues faced by education, and have input into the proposed VPLD community framework and model. However, the group did not gel as well as hoped, energy was rather low, and a few of the participants had a somewhat nebulous sense of why they were there and what they wanted to achieve. Sessions tended to be mainly in a large group and participants seemed reluctant to contribute to or 'lead' the discussions. Additional issues were the physical restrictions of the venue and the furniture, and the failure of the internet connection. Nevertheless, participants did get an opportunity to get to know each other, and engagement in the online spaces increased after the meeting.

The lessons learned from the first face-to-face meeting were applied to the second in June 2010, and a participant-centered approach to facilitating the meeting was adopted. This meeting was much more successful, with greater energy and engagement. One participant commented, "This second session was much more useful than the first in Dec 2009. We have had time to try our ideas, to make our mistakes and to reflect upon our success. An overall atmosphere of confidence has given some much-needed direction … and with some meaningful outcomes".

While it might be ideal to plan and budget for two face-to-face meetings every 12 months with a virtual approach to PLD, one well-planned event is likely to achieve the dual aims of social cohesion and professional development.

Effects on students' learning

VPLD participants were urged to evaluate the effects of their shifts in practice on the learning experience as perceived by their students. Feedback from the students was to be reflected upon and used for further changes. Also, although problematic because of the variety of influences within each learner's environment, teachers were encouraged to gather data about any changes in their students' achievement of learning outcomes.

The main aspects identified by evaluations conducted by teachers included their students':

- level of engagement
- development of 'soft skills' (e.g., time management and sense of self as 'learners')
- development of metacognitive skills
- development of digital literacy and research/enquiry skills
- increased cultural and global awareness

- development of communication skills
- self-selected use of a range of multimedia to scaffold learning
- creation of a range of own multimedia objects to demonstrate learning and/or practice skills
- display of a variety of affective domain outcomes such as motivation, confidence, sense of voice, and sense of belonging.

One specific benefit identified and reflected on by participants was the shift in their own role, whereby they ceased to be the main source of assistance and provider of resources. For instance, designing and developing easily accessible online "links, lessons, assignments, grades", rubrics, multimedia scaffolding, and instructions, that were all available "in one place", meant that learners were able to "use the same lesson resource for their study wherever they are, and whenever they choose", and to "begin their learning before the schedule [sic] classroom lesson". One teacher also acknowledged that student self-direction "independent of the school environment" was fostered by providing resources that supported them in ways that allowed for differentiation "and empowered them to learn on their own terms".

It is interesting to note that, although two respondents specifically reported improvements in student achievement of learning outcomes ("Compared to the performance of previous Y10 cohorts the pilot group has collectively outperformed their peers"), the rest of the effects noticed were affective in nature, and included improved quantity and quality of cooperation, collaboration, and communication between learners. It was nevertheless acknowledged that there was a need for "MORE evidence of student engagement in the environment online. … " [emphasis original]. When this was discussed further, the participants felt that they wanted to evaluate whether there was a change in levels of engagement over time, and if similar levels of engagement were observable across cohorts.

Synthesis and conclusions

The pilot illustrated that critical elements of the VPLD model are an experience where 'training' in discrete 'stand-alone' skills takes second place to a teacher's own learning journey; a personalised, contextualised curriculum; and affective factors—community, belonging, and relationships.

Many of the factors identified in the VPLD pilot link to the wider conversations that are occurring in the education sector in general, and in connection with social learning in particular. Questions are being raised about what actually should define a programme of professional learning, as well as the role(s) of educators in social networks and learning. The general shift appears to be toward personalised learning environments, self-paced learning, and social identity. The teachers who are trialling these approaches are discovering the types of skills needed by them, as educators, and their students, as learners.

It has been shown that there are affordances built into the VPLD approach that encourage and enable teachers to move at their own pace in a supported, supportive environment, with access to all that they need to scaffold their learning journey. Thus, if it is accepted that student outcomes frequently mirror teacher performance (although this is a somewhat simplistic relationship), it would follow, that if teachers can be mentored and guided in their own continual professional development and thinking around learning and teaching philosophies, there is a strong possibility that the overall learning experience for students can be enhanced. However, it is still incumbent upon the wider education structures to act to minimise constraints that discourage, prevent or enforce.

Note: An overview was developed of the first 6 months of the project in this short video vignette, as well as an additional resource that proves a richer overview with further feedback data from the pilot.

References

Adey, P. (2006). A model for the professional development of teachers of thinking. *Thinking Skills and Creativity, 1*(1), 49–56.

Alton-Lee, A. (2003). *Quality teaching for diverse students in schooling: Best Evidence Synthesis (BES) Iteration*. Wellington: Ministry of Education. Retrieved from http://www.educationcounts.govt.nz/publications/series/2515/5959

Bishop, R., Berryman, M., Cavanagh, T., & Teddy, L. (2007). *Establishing a culturally responsive pedagogy of relations*. Retrieved from http://www.educationcounts.govt.nz/publications/?a=59197

Brown, J. S., & Duguid, P. (2000). *The social life of information*. Cambridge, MA: Harvard Business School Press.

Bruckman, A. (2003). Co-evolution of technological design and pedagogy in an online learning community. In S. Barab, R. Kling & J. Gray (Eds.), *Designing Virtual Communities in the Service of Learning* (pp. 1–22). Cambridge, UK: Cambridge University Press.

Charmaz, K. (2008). Grounded theory as an emergent method. In S. Hesse-Biber & P. Leavy (Eds.), *Handbook of Emergent Methods* (pp. 155–170). New York: Guilford Press.

Dron, J. (2010). [Social Velcro]. [Web log message]. Retrieved from https://landing.athabascau.ca/pg/blog/gsiemens/read/18304/moving-the-social-networked-learning-the-landing-forward

Duncan-Hewitt, W., & Austin, Z. (2005). Pharmacy schools as expert communities of practice? A proposal to radically restructure pharmacy education to optimize learning. *American Journal of Pharmaceutical Education, 69*(3), 1–7.

Gottfredson, D., Marciniak, E., Birdseye, A., & Gottfredson, G. (1995). Increasing teacher expectations for student achievement. *Journal of Educational Research, 88*(3), 155–164.

Hallam, G. (2008). The Australian ePortfolio project and the opportunities to develop a community of practice. Paper presented at the Ascilite 2008: Where are you in the landscape of educational technology? Retrieved from www.ascilite.org.au/conferences/melbourne08/procs/hallam.pdf

Ham, V. (2009). *Outcomes for teachers and students in the ICT PD School Clusters Programme 2005–200: A national overview*. Wellington: Ministry of Education. Retrieved from http://www.educationcounts.govt.nz/__data/assets/pdf_file/0011/48764/921_Outcomes2005-07.pdf

Harwell, S., Gunter, S., Montgomery, S., Shelton, C., & West, D. (2001). Technology integration and the classroom learning environment: Research for action. *Learning Environments Research, 4,* 259–286.

Hildreth, P., Kimble, C., & Wright, P. (2000). Communities of practice in the distributed international environment. *Journal of Knowledge Management, 4*(1), 27–37.

JayVeeAre. (2010). *NZ Map on an Apple* [Photograph]. Retrieved November 20, 2010, from http://www.flickr.com/photos/jayveeare/4970153643/

Kublin, K. S., Wetherby, A. M., Crais, E. R., & Prizant, B. M. (1989). Prelinguistic dynamic assessment: A transactional perspective. In A. M. Wetherby, S. F. Warren, & J. Reichle (Eds.), *Transitions in prelinguistic communication* (pp. 285–312). Baltimore: Paul H. Brookes.

Mayes, T., & de Freitas, S. (2004). *Review of e-learning theories, frameworks and models*. JISC e-learning models desk study. Retrieved from www.jisc.ac.uk/uploaded_documents/Stage%202%20Learning%20Models%20(Version%201).pdf

McKenzie, B., & Turbill, J. (1999). *Professional development, classroom practice and student outcomes: Exploring the connections in early literacy development*. Paper presented at the AARE–NZARE Conference. Retrieved from http://www.aare.edu.au/99pap/mck99328.htm

Milligan, C. (1999). *Delivering staff and professional development using virtual learning environments.* Edinburgh: Heriot-Watt University. Retrieved from http://www.jisc.ac.uk/media/documents/programmes/jtap/jtap-044.pdf

Moses, I. (1985). Academic development units and the improvement of teaching. *Higher Education, 14*(75), 64–109.

Owen, H. (2010, October). The trials and triumphs of adapting a tertiary face-to-face course to online distance mode. *Practice and Evidence of Scholarship of Teaching and Learning in Higher Education, 5*(2), 137–155. Retrieved from http://www.pestlhe.org.uk/index.php/pestlhe/article/view/93/206

Owen, H. & Schwenger, B. (2009) Supporting academic development to enhance the student experience. In *The Student Experience, Proceedings of the 32nd HERDSA Annual Conference, Darwin, 6–9 July 2009*, pp. 324–335. Retrieved from http://www.herdsa.org.au/wp-content/uploads/conference/2009/papers/HERDSA2009_Owen_H.pdf

Parr, J., Timperley, H., Reddish, P., Jesson, R., & Adams, R. (2006). *Literacy Professional Development Project: Identifying effective teaching and professional development practices for enhanced student learning. Milestone 5 (Final report)*. Wellington, New Zealand: Learning Media.

Sharples, M. (2000). *Disruptive Devices: Personal Technologies and Education*. Retrieved from http://www.eee.bham.ac.uk/handler/ePapers/disruptive.pdf

Shea, P., Pickett, A., & Li, C. (2005). Increasing access to Higher Education: A study of the diffusion of online teaching among 913 college faculty. *The International Review of Research in Open and Distance Learning, 6*(2), 1–8. Retrieved from http://www.irrodl.org/index.php/irrodl/article/viewArticle/238/493

St John, E., & Wilkerson, M. (2006). *Reframing persistence research to improve academic success: New directions for institutional research*. San Francisco: Jossey-Bass.

Stoll, L., McMahon, A., & Thomas, S. (2006). Identifying and leading effective professional learning communities. *Journal of School Leadership, 16*(5), 620-640.

Thomas, G. & Tagg, A. (2005). Evidence for expectations: Findings from the Numeracy Project longitudinal study. In J. Higgins, K. Irwin, G. Thomas, T. Trinick, J. Young-Loveridge (Eds.), *Findings from the New Zealand Numeracy Development Project 2004* (pp. 21–46).

Timperley, H. (2008). *Teacher professional learning and development*. Educational Practice Series – 18. International Academy of Education & International Bureau of Education Paris. UNESCO. Retrieved from http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/EdPractices_18.pdf

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration [BES]*. Wellington: Ministry of Education. Retrieved from http://www.educationcounts.govt.nz/__data/assets/pdf_file/0017/16901/TPLandDBESentire.pdf

Timperley, H., Phillips, G., Wiseman, J. & Fung, I. (2003). *Shifting the focus: Achievement information for professional learning: A summary of the sustainability of professional development in literacy—Parts 1 and 2*. Wellington, New Zealand: Ministry of Education. Retrieved from http://www.educationcounts.govt.nz/__data/assets/pdf_file/0004/7456/pdlit-sum.pdf

Tu, C-H. (2004). *Online collaborative learning communities: Twenty-one designs to building an online collaborative learning community*. Westport, CT: Libraries Unlimited.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston: Harvard Business School Press.

Biographical note

Hazel Owen
ethosconsultancynz@gmail.com

Hazel Owen is an education consultant with an interest in all aspects of ICT-enhanced learning and teaching, especially when underpinned by social learning and communities of practice. She is also keen to develop creative ways of scaffolding and empowering learners, and to foster learner-led, culturally responsive, contextualised approaches.