

**Theme:** Access & Success in Learning: Global Development Perspectives

**Aspects of the themes:** Skills Development

Toward Leveraging Open Source Technologies: Training teachers in the use of Moodle (LMS) at the University of the South Pacific

Neelam Narayan<sup>1</sup>, Prof. Santosh Panda<sup>2</sup>, Kerishma Seth<sup>3</sup>

1. Instructional Designer ([narayan\\_n@usp.ac.fj](mailto:narayan_n@usp.ac.fj))

2. Professor & Director (CFDL, USP) ([panda\\_s@usp.ac.fj](mailto:panda_s@usp.ac.fj))

3. Educational Technologist ([seth\\_s@usp.ac.fj](mailto:seth_s@usp.ac.fj))

Centre for Flexible and Distance Learning

The University of the South Pacific

Private Mail Bag

Suva, Fiji

The introduction of the learning management system (LMS) has been a challenge for many educational institutions in terms of providing proper training and up-skilling the teaching staff in the use of LMS and effectively incorporating it in their teaching. The University of the South Pacific (USP) which is owned by 12 island nations and which serves almost half of the 20 thousand students through flexible learning is no exception to this. In this paper, the authors describe the initiatives taken by USP to design and conduct professional development workshops for teaching staff embarking to use Moodle in their teaching. Since 2007, the training workshops have been conducted in several ways to meet the immediate needs and demands of the teaching staff. The training workshops comprised of a series of face-to-face 3-4 hour workshops, online introductory workshops and one-to-one workshops in response to urgent requests.

These workshops focus specifically on enabling teaching staff:

- to use Moodle as an adjunct to face-to-face teaching rather than to teach in a fully online or distance learning context;
- to get a feel for how their courses could be enhanced using Moodle;
- to understand the process of planning, designing and implementing online courses, and collaborate with others to do those tasks;
- to create better and active communication and collaboration with their students; and
- to design and manage learning assessment using Moodle.

Besides discussing the issues relating to the design and offer of training workshops, the authors critically reflect on the evaluation findings and concerns raised by the teaching staff in regards to teaching large classes with students distributed over the 12 countries of the USP region. Also, this paper suggests alternative ways of training that can be implemented to develop the skills of the teaching staff required for effective use of the LMS.

**Keywords:** Teacher Training, Learning Management System (LMS), Moodle.

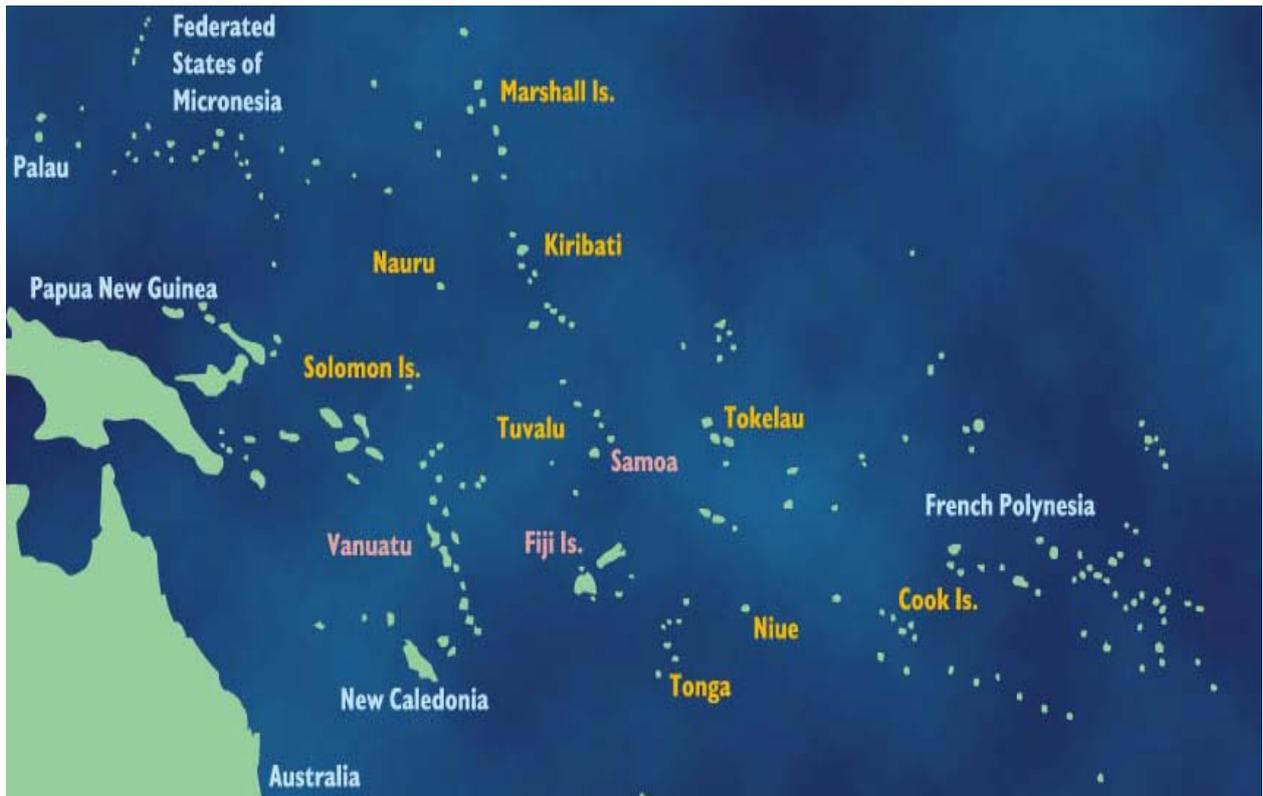
## Background of USP

The University of the South Pacific (USP) is the only university of its type in the world, and the introduction of an online learning management system there was, in turn, a unique experience (Whelan, R & Bhartu, D: 2008). USP is owned by 12 island nations: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Samoa (see Figure 1) and which serves almost half of the 20 thousand students through flexible learning is no exception to this. It offers almost 400 educational programmes through distance and flexible learning with a variety of media at fifteen campuses in the region. USP has been a worldwide pioneer in this area since the early 1970's.

USP has its own USPNet, a satellite-based communications network, which it uses to reach over 10,000 students across the vast expanse of the Pacific Ocean. Distance and flexible learning students are provided with a mix of printed materials, audio and video cassettes, CDs and DVDs, the Internet and live access to lectures and tutorials taking place at the main Suva Campus through video conferencing and broadcasting (Whelan, R & Bhartu, D: 2008).

In order to ensure that all communications and data exchange would use a common standard platform around Internet technologies, the University converted USPNet into an IP-based system in 2006. At this time the University hosted three different online Learning Management Systems (LMS): *EDISON* hosted by the Faculty of Arts and Law, the commercial *WebCT* system that hosted courses in education and other fields; and the open source *Moodle* system, that served the school of computing and information sciences.

USP strongly supports the initiatives of the Faculties and the regional campuses related to distance learning which consists of online, blended and print modes. The University has always prioritised the performance of its students and the quality of teaching and learning. After evaluating and testing the three LMSs, it was decided by the senior management that only one university-wide LMS was required and hence Moodle was chosen by the University.



**Figure 1: Twelve island countries of the USP region**

### **An integrated approach to professional development**

Since the implementation of the Learning Management System (Moodle) at USP, there has been a growing demand for its usage. The main aim of the Moodle workshops was to prepare the teaching staff to use appropriate tools in Moodle to enhance their face to face and distance courses. “For the University’s 3,000 staff and 20,000+ students needing training on a new platform, the LMS coordination team faced a priority task with complex difficulties at the political, geographical and budgetary levels” (Whelan, R & Bhartu, D: 2008). Table 1 annotates the workshops offered since 2007.

Approaches to academic staff development that seamlessly incorporate both technical skills and pedagogy ought to serve to model quality teaching practices within any LMS (Ellis& Phelps, 2000). One of the major challenges that the LMS Coordination team has been faced with is getting the academic staff interested and making them realise the need to use Moodle effectively to enhance the teaching and learning at USP.

The Moodle training team at the Centre for Flexible and Distance Learning attended workshops conducted by consultants from Flexible Learning Network, New Zealand, held at the University of the South Pacific in 2008. These workshops were conducted to enhance our Moodle training skills. This was a great opportunity for the Moodle trainers to enhance their skills and at the same time apply those skills in the design and facilitation of the Moodle workshops at USP.

Moodle workshops are currently offered in a number of modes: face-to-face, online and blended. These workshops range from tailor made workshops for specific faculties/departments, one-to-one workshops for academic staff to meet their immediate requests and just-in-time workshops before the semester begins. Table 1 below outlines the approximate number of workshops offered to academic staff since 2007.

**Table 1: Workshops offered since 2007**

<b>Workshops</b>	<b>Sessions offered since 2007</b>
Beginners Moodle offered in 2007	10
Advanced Moodle offered in 2007	5
ITS Moodle Helpdesk offered in 2007	1
Online Communication and Collaboration Tools offered in 2008	2
Assessing and Managing your class in Moodle offered in 2008	2
Introduction to Moodle offered in 2009-2010	11
Increasing student engagement through online learning offered in 2009-2010	3
Assessment in Moodle offered in 2009-2010	4
Managing and Monitoring Learning Achievement offered in 2009-2010	3

### **Key Findings of the workshop evaluation**

The majority of the workshops offered prior to 2010 were offered face-to-face and were scheduled for teaching staff during the mid-semester breaks to optimise the chances of them being able to find time and venue convenient to their own requirements. Each of the workshops offered were evaluated extensively to improve future offerings and also to meet the growing demand for the use of Moodle in teaching and learning at the University.

The Faculty staff were asked to fill in the online questionnaires at the end of each workshop. Analysis of the evaluations clearly indicated that Faculty consistently regarded Moodle as having the most potential; they also observed that it appeared to be a better teaching and learning tool than Class Shares and WebCT which were introduced prior to the introduction of Moodle as LMS. The participants were satisfied with the structure of the workshop and the presentation style of the workshops. The combination of Online and hands-on experience as well as two presenters and the support team was considered beneficial by the participants.

Evaluation has been continuing since the implementation of Moodle in 2007. The analysis of the surveys has revealed that academic staff are generally happy with the structure and format of the workshops. Overall, the participants of the workshops were impressed with the various tools and their functionalities. Most of them were able to vision how they could utilise some of the tools in Moodle in their teaching context. The most popular tools were Forums, Chat, Grades, Assignment dropbox, Choice, Glossary and Journals.

From the reactions and feedback received from the participants, it was evident that there was knowledge transfer of varying degrees for most participants. However, there were also a number of negative comments from the participants; for example, some participants found too much information disseminated in the 2-3 hour workshops. The LMS Coordination team noted that the participants ranged from less competent to over confident. This has been a major challenge for the workshop facilitators taking into consideration that the facilitators have to provide appropriate support and enough time for hands on activities while also covering necessary content.

The decision to change the mode of offer for the workshop was collectively made by the Moodle workshops team members taking into account that most teaching staff interested in the workshops were unable to attend the face-to-face offerings due to their workloads. Hence, the blended and online workshops were introduced in the beginning of 2010.

The table below highlights the series of workshops offered in 2010.

**Table 2: Workshops offered in 2010**

Workshop Reference	Workshop Name
M1	Intro to Moodle
M2	Increasing Student Engagement
M3	Assessment & Moodle
M4	Managing & Monitoring Learning Achievement

For all the four workshops, the faculty staff were encouraged to participate as students online for the first 2 weeks before the face-to-face training. To accomplish this, staff were provided with a generic Moodle account and were asked to interact as students. In the face-to-face workshops, the participants were the designers for their own courses. The organisation of the Moodle courses impacted on what and how participants learnt within the workshops.

Overall satisfaction ratings for the last offer of workshop stand at 5.5, 5.0, 5.0 and 5.5 out of 6 for M1, M2, M3, M4 respectively. These ratings clearly indicate that the participants of the workshops have been very impressed with the content and delivery of the workshops and have walked armed with more innovative ideas and techniques of delivery for modes of students enrolled at the University.

### **Challenges faced**

Taking into consideration that USP is a unique university of its type in the world serving 12 countries in the Pacific region, the introduction of the open source learning management system (Moodle) was in itself a challenge. As mentioned previously, the University has over 3,000 staff and 20,000+ students (both face-to-face and distance mode) across the 12 campuses in the region.

There were obvious problems faced by the LMS coordination team when planning and designing workshops for the staff. The team decided to design the first cohort of workshops for the teaching staff at Laucala as the Moodle platform was more stable at Laucala campus in 2007. Approaches to academic staff development that seamlessly incorporate both technical skills and pedagogy ought to serve to model quality teaching practices within any LMS (Ellis & Phelps, 2000). It has been a continuous challenge for the LMS coordination team to encourage quality teaching practices with the technology through training and marry both LMS and pedagogy.

The majority of the teaching staff had problems shifting from face-to-face teaching to online teaching. Lack of computing skills and fear of advanced technology was seen as one of the major factors drawing teaching staff away from using Moodle to support their courses. Most teaching staff raised concerns over teaching large classes and lack of time to effectively moderate the discussions in their courses.

Another very important point noted by the team was that the academic staff with large class numbers showed reluctance in using Moodle to deliver or even support their courses simply because they thought that it took up too much of their time and their current workloads were too overwhelming to allow them to engage in Moodle.

Apart from the challenges mentioned above, the LMS coordination team noted the following as the major concerns which has direct implications in terms of staff development strategies currently adopted by USP especially serving 12 regional countries.

Major concerns:

- Incorporate pedagogical or teaching and learning aspects in training
- Determine criteria for the various levels of training
- Separate workshops to cover the pedagogical aspects of online learning
- The need for researching practice to inform practice and policy development
- The contribution of professional development to organisational change to promote team based learning to enhance best practice in online pedagogy

Taking into consideration the multiple challenges and developments in the use of Moodle at USP, LMS coordinating team analysed the Moodle workshops offered since 2007 and finally decided to target specific departments with further Moodle workshops in 2009. The team prepared a priority list and invited the departments within the three faculties at USP to enroll for the specifically tailor made workshops.

However, at the beginning of 2010, the team met again and finally decided to offer the workshops in several modes. The first series of 2010 Moodle workshops were offered as follows:

**Table 2: Workshops offered in 2010**

Workshop Reference	Workshop Name	Mode Delivery	of	Comments
M1	Intro to Moodle	Blended		Online and Face-to-face
M2	Increasing Student Engagement	Blended		Online and Face-to-face
M3	Assessment & Moodle	Blended		Merged workshops: Print & Moodle Online and Face-to-face
M4	Managing & Monitoring Learning Achievement	Blended		Online and Face-to-face

### **The contribution to organisational change and educational enhancement**

“In an information age where we talk of knowledge, digital divide and information poverty, for USP to offer education and training in ICT to meet the needs of all its member countries is an imperative in terms of the University’s mission to the region” (Evan, J & Hazelman, V: 2004).

For any tertiary institution to engage with educational technology, it is vital that it enables the academic discipline areas to reconceptualise its pedagogical models and practice and at the same time engage in research to compete with the international demands of growing educational technology.

Information and communication technology (ICT) is having a revolutionary effect on school practices, government and public sector policies, and commercial and economic capacity building opportunities worldwide. (Whelan, R: 2007).The offer of Moodle workshops to the teaching staff at USP has seen a growing demand in the use of Moodle in both face-to-face and DFL courses. Most of the face-to-face courses are using Moodle to support their courses on-campus and the DFL courses are using Moodle

as a support or in a blended mode. Using Moodle in DFL courses has shown that distance students are able to communicate more often with their course lecturers and tutors.

### **Collaborative practice and action learning work as best practice in academic development for online pedagogy**

As mentioned earlier, there were some who were very new to the online learning environment and would need time to better understand their different roles and responsibilities in this new teaching environment. Therefore, it is necessary for faculty staff to remember while designing courses that it is pedagogy and not technology that is critical to the success of online courses.

Action research involves "team research by faculty members into their own practice, rather than by specialists on their behalf"(Zuber-Skerritt, 1991, p. 113). Action learning and team based approaches are essential as online learning and teaching are rapidly evolving and the literature is always likely to be one step behind recent developments. Furthermore, to effectively reach the distant students, faculty staff need to alter their teaching styles to successfully change from traditional pedagogy to active online learning.

Success of online learning requires faculty members to better understand the design and delivery of online courses and for this reason, action learning and team based approaches to online developments are valuable models.

Furthermore, technology alone does nothing to enhance online pedagogy. According to Jacobsen, et al. (2002), the real challenge is to "develop fluency with teaching and learning with technology, not just with technology, itself".

### **Researching practice**

The LMS coordination team has no doubt engaged in providing the best possible training needs to the teaching staff of USP and at the same time have improved the delivery of the workshops. The team has spent a lot of time researching and upgrading their skills in the design, pedagogy and technical skills to provide the best support to the teaching staff of the University.

Arguably, one of the most rewarding aspects of Moodle workshops we have discussed here has been the way we believe the programme has assisted in expanding the interest of our colleagues in the possibilities of researching their pedagogical practices.

While we will continue to foster and support such initiatives, the team has already implemented a Moodle users group at USP(MUGU) that aims to investigate the way in which ICTs, in particular the use of Moodle, have begun to influence pedagogical experiences and outcomes for students and academic staff. The site was set up to facilitate and support discussions and sharing of ideas and practices of online learning and teaching among USP teaching staff. MUGU is particularly interested in taking an interpretative methodological approach to the investigation that will 'illuminate' the way in which students and academic staff have come to engage with Moodle and to explore the changing face of the pedagogical experience at USP.

## **Conclusion**

Finally, looking at the number of faculty staff who participated in the workshops and the evaluation results suggests that the approach has been very successful. The feedbacks received from the participants are very useful indicators in the evaluation process of staff development initiatives. However, Moodle can only maintain its relevance by the training team being highly proactive in responding to needs of the faculty staff, flexibility in their approach to dealing with different staff, willingness to provide practical and cheerful support.

The implementation of Moodle workshops in various modes: face-to-face, blended and fully online workshops have been beneficial to academic staff allowing them to participate in these workshops at their time and pace. The Moodle workshops training team is geared towards improving the design and delivery of these workshops and is currently relooking at the modes of delivery and scheduling of these workshops during times more flexible to the academic staff of the University.

## References

Ellis, A & Phelps, R. (2000). Staff development for online delivery: A collaborative, team based action learning model. *Australian Journal of Educational Technology* 16: 26-44.

Evans, J & Hazelman, V (2004). Hard digital realities: Teaching with technology in the Pacific Islands.

Jacobsen, M., Clifford, P., & Friesen, S. (2002). Preparing teachers for technology integration: creating a culture of inquiry in the context of use. *Contemporary issues in technology and teacher education*, 2(3). Retrieved June 15, 2009, from <http://www.citejournal.org/vol2/iss3/currentpractice/article2.cfm>

USP Moodle Workshops Reports 2007-2010.

Whelan, R & Bhartu, D (2008). Factors in the Deployment of a Learning Management System in the University of the South Pacific.

Zuber-Skerritt, O. (1991) "Action research as a model of professional development" in *Action Research for Change and Development*, ed. O. Zuber-Skerritt, Avebury, Aldershot, pp.112-135