

On online environment for value added learning: more than *you* bargained for

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Abstract: Online web-based technologies are increasingly being used in educational and professional contexts to create an effective environment for teaching or professional learning. A number of studies have explored the intersections between on and off line teaching and learning, participants' perceptions, and claims of connectedness and community fostered by online sites (Jones, 1998; Rheingold, 1995; Soderstrom, 2006). This paper will outline the development, functionality and usefulness of the online environment (Drupal) installed and used to support the Australian Government Summer School for Teachers of English. It includes an analysis of the virtual environment (social software) established for the Summer School. The research project aimed to determine what aspects of an online environment supported the success of this national professional development activity that incorporated physically present, and online communication, connection, and collaboration between 200 teachers over a period of seven months. In this paper the site manager explains their role and perspective of the potential of social software for learning.

Keywords: professional development, interaction, collaboration, learning community, web 2.0, social software

1. Introduction

The Australian Government Department of Education, Employment and Workplace Relations (DEEWR - formerly DEST) called for tenders in late 2007 for the development of the Summer Schools for Teachers. The Summer School was aimed to provide teachers with the opportunity to access professional learning to enhance their knowledge and skills in one of the priority subject areas of literacy and numeracy, English, mathematics, science and Australian history. Deakin University, (in conjunction with Murdoch University and the Australian Association for the Teaching of English [AATE]) was successful in attracting the funding to organize and deliver the Summer School for Teachers of English. This paper discusses the project beginnings and outcomes as well as a preliminary examination of some of the research findings.

The Summer School was to provide teachers of English with the opportunity to focus on key issues and debates confronting teachers of English in the twenty-first century. The Summer School offered a range of keynote presentations from outstanding national and international speakers, forums, breakout sessions, computer lab-based work, social excursions, opportunities for informal contact and networking, and an extension programme. The Summer School consisted of five modules: Leading Change; Literature and the Canon in the Twenty-First Century; Multiliteracies, Multimodality and Design; Children's and Young Adult Literature; and Commonality and Assessment. The modules were designed to:

- address the changing nature of literacy;
- capitalise on the latest ICT technologies to enhance student learning and engagement;
- bring together diverse traditions and approaches to English education; and
- explore core issues such as curriculum, assessment, commonality and diversity.

The project team were keen to use some form of online environment to support the Summer School and they consulted me about the ability of the university Learning Management System (LMS) to do this. I was able to give advice as to the suitability of the platform, according to user interface and navigation design as well as the structure and layout of the online environment. After initial consideration (as discussed below) it was decided that the project would be better served by using an installation of an open source content management system (CMS) application named Drupal. Drupal

<http://Drupal.org/>) is a free (open source) software package that allows an individual or a community of users to easily publish, manage and organise a wide variety of content on a website.

2. Context to making decisions & choosing a platform

As the teachers participating in the program were based across the country, the project team wanted to provide some kind of online space where the Summer School could be hosted. Discussions were held to help clarify things such as the functionality, available tools, learning materials, administration and access, and proposed activities. While there was access to the LMS, constraints of that system included the lack of external access and opportunities for meaningful collaboration. The project team was keen to provide the facilitators and participants with a space that would mitigate the issues of control and constraint (Dron, 2007) inherent in the LMS and provide as much freedom to interact and collaborate as possible.

The major factors considered when making the decision to use a Drupal were informed through recognition of a constructivist approach to learning. The Drupal online environment was chosen as it accommodated the use of these concepts aligned with constructivist education theory (Bruner 1990, Dewey 1961, Piaget 1954, Vygotsky 1978). The ideas that learning is a social process, that learners should collaborate rather than compete, that learners create new knowledge and understandings from their experiences, and that learners need to be challenged to learn the next thing, are well supported in a Drupal type environment. The idea of learning through building (Dewey 1961) and a communal approach facilitated by e-learning and online collaborative spaces, support the model of interaction that was intended for the web site. Lave & Wenger (1991) suggest that knowledge can be co-constructed through a social process and this idea was central to a community of learners of like minds to share and encourage each other through the process of learning. The Project Team believed that the Drupal site would provide, facilitate and encourage pedagogical aspects such as: a definition of outcomes, clear outlines and scope of activities supported by a functional framework, an appropriate range of resources, opportunities for reflection and dialogue, learning components that can be used in a flexible way while providing a support (scaffold) that individuals can make use of these in a range of ways.

During the initial discussions regarding the delivery and support for the Summer School, the project team was aware of the need to focus on the purpose of the site and not the technology itself. The team was aware that the success and effectiveness of the online collaborative learning community would be enhanced through regular communication, frequent feedback, and a level of online social presence. (Tu 2004). The technology platform would enable the purpose, as well as hopefully deliver a level of success against the intended outcomes. We were keen to ensure that the participants could have some level of control of the space in which they were interacting by providing functionality for contributing materials and sharing in forums. The project team required functionality to present module overviews and resources, for interaction and collaboration between facilitators and participants through interactive forums and opportunities for resource upload and notifications of newly posted content.

It was important to keep the focus on the community of learners and their ability to develop relationships and a social presence within a given learning environment, rather than focus on the technologies and tools. (Sadera, Robertson, Song, & Midon, 2009) The intention was to have the technology become ubiquitous and invisible as participants developed an unconscious competency (Gordon & Burch, 1974) with a focus of using the space centered on interactions and sharing. As the project team was keen to provide more functionality than the LMS, we could work towards achieving a 'learning community', which McConnell describes in his Model 3. (McConnell 2006, p.18)

3. The Summer School begins

The initial planning, design, installation, programming and content creation for the site could be completed fairly quickly. Facilitators and developers worked collaboratively to ensure design and underlying pedagogy joined functionality and useability. The project team understood that there could be a level of inexperience on behalf of the participants with regard to the use of such an online environment so care was taken to support those who needed it. While there was a lack of experience

and knowledge of the Drupal system within the project team, we were committed to providing a well-developed 'space' where participants could see an overview of the program, be able to access material and communicate freely with others.

A programmer was able to develop a script that exploited some functionality within the system to enable us to email all participants with an invitation to register, set their password, and fill out their profile. This worked well, but to a small extent some participants found the process problematic. There seemed to be either a case of not understanding the instructions, or not being able to access the site due to firewall restrictions. Anyone who contacted us with a problem generally had it rectified within a day and this helped develop a level of relationship and trust that made participants feel welcome. Some participants had difficulties dealing with their own institutional firewalls and confusion over passwords and accessing material. It was possible to provide technical support and advice to those having difficulty in gaining access or who were confused about the interface and functionality.

Participants were able to log into the website before the Summer School began and were encouraged to complete a profile and access readings before the official beginning of the Summer School. Many people started interacting socially and wrote about how excited they were to be attending the two-week intensive in Geelong during January. Facilitators were also keen to support participants and acknowledged problems and frustrations while providing a calming influence for those users who were having difficulties. While there was a large group of people, the face to face contact and interaction at the intensive may have helped participants feel more comfortable after returning home to continue interacting in the space. A participant commenting on the functionality of the space explained:

“It was particularly useful to 'meet' people before the conference began, and then keep in touch with people afterwards.”

Those teachers selected to participate in the Summer School were regarded as high achieving change makers within their faculty, school or school community. The participants were thus highly likely to be good communicators with a preparedness to experiment, and an interest in developing and maintaining national networks with fellow participants. To a large extent this was proved correct but not all participants were willing or felt comfortable in interacting via the online environment. This study doesn't provide answers to why some people had difficulty in engaging in this way, but as discussed later, some comments indicate reasons such as a lack of time and confidence and poor Internet access.

4. Outcomes and Research results

The longer the Summer School went on, the more I noticed that there seemed to be a high level of interaction and a sense of positive outcomes. Having had some experience of, and interaction in spaces such as the DEST Drupal, I became interested in finding out if the site/space had facilitated this perceived success. I was interested in determining how the online environment facilitated the engagement of the participants and encouraged a sense of collegiality. Previous studies have explored the intersections between on and off line teaching and learning, participants' perceptions, and claims of connectedness and community fostered by online sites (Jones, 1998; Rheingold, 1995; Soderstrom, 2006).

An online survey was developed as the instrument to gather data for a small research project intended to determine; the ways the site was used, the relationship between different parts of the site and their relative usage, the relationship between the online site and the physical activity around which it was built, and in what ways the site worked to develop a community of practice. It was important to determine whether the 'space' had the ability to support the learning and activity required as part of the teachers work in the modules undertaken as part of their professional development. Participants were asked if they thought the website was suitable in supporting them during the Summer School and their response was positive. (see **Table-1**)

Q.15 The website was suitable for supporting this professional development activity.			
Strongly Agree			39
Agree			29
Neither Agree or Disagree			7
Disagree			2
Strongly Disagree			1
Mean score on scale of 1-5 where 5 = strongly agree. N=78			4.32

Table-1: Suitability for supporting professional development activity

Participants reflected their pleasure that the website was still being actively used seven months after the initial face to face intensive and that there was ‘continual support on a professional level’. Other participants recognised that time pressures affected their ability to engage as much as they would have liked and that they felt some participants could have contributed more. Overall there seemed to be an acknowledgment that the functionality and tools of the website were definitely useful to support and sustain professional learning for this group of participants.

While some learners are able to access the affordances of new ways of learning, any number and range of impediments hold others back. When participants were asked what aspects of the site that they found frustrating, most responses included technical problems like; ‘login and password problems’, ‘links not working’, ‘difficulty downloading and uploading’, ‘time wasting threading’, ‘navigation and logic unclear’ and ‘inexperience’. This indicates that there was a level of frustration that would provide a negative experience that might influence how a participant might feel about using the site. Great effort went into rectifying these types of problems quickly and because the majority of people had no problems, I made an assumption that those who had these problems were less confident and competent in understanding and navigating online environments. David Jonassen identifies three major roles for facilitators to support students in constructivist learning environments; modelling, coaching, and scaffolding (Jonassen 1999). The project team was cognisant of this and attempted to provide positive reinforcement, we developed a help section and an FAQ for guidance and I was able to fulfill a role of guide and mentor to ensure participants felt comfortable, listened to, and acknowledged without feeling inadequate when learning how to use the space.

5. Implications for the future

Participants comment as to how their experience has changed their practice indicate that it has encouraged them, given them a confidence to try things. Their comments indicate that they have shared their new knowledge and taken a leadership role with regard to the implementation of social software tools at their school. It may be suggested that the use of an online learning environment could support the rate at which new technologies might be adopted. It’s worthwhile considering the technology adoption lifecycle (Moore 1991, Rogers 2003) and thinking about how to provide a mechanism to cross the chasm between the early adopters and the early majority. Can using professional development activities such as the Summer School provide an added benefit of learning how the online space works? Does it create a method for crossing the digital divide through immersion in a space that is a supported and safe environment? Homes & Gardener (2006, Figure 9.1, p. 169) illustrate this idea with an image of those participating in e-learning doing so across a ravine of constraints from those (without any facilitating technology) looking on.

As well as many participants indicating that they had learned new skills and were keen to implement them, one participant was able to comment as follows:

I have learned how to submit comments on-line, follow links to gain further information, download material and print it, but most importantly I am no longer very nervous about using the computer and what's more I'm really enjoying it and I am learning by making

communication (discussion /boards /forum /forums), *activity* (use/ using/ used/ practice), *online space* (blogs/ wiki/ website), *physical place* (school/ classroom/ class) and *people* (students/ teachers/ colleagues/ children). While these 'themes' don't appear as words in the diagram, they highlight the interaction between people using collaboration & communication technologies in place & spaces for learning. They encapsulate the factors involved for meaningful learning to take place. The themes provide sufficient evidence that teachers were able to incorporate their new understandings of using appropriate technologies into their professional practice. This can be argued to be a 'side', or 'value added' benefit to being a participant of the Summer School as the main focus of participating was to complete a professional development module. Participants were able to define what peripheral or ancillary learning they had gained through using the online environment.

6. Reflections

Is it time to reconsider the form we use when delivering professional development, work place training, regular learning and teaching? Could professional development take the form of an extended program that allows participants to get to know other participants and facilitators, establish relationships, learn the (new) tools, and develop a better understanding of the learning process? I think it would be fair to say that teachers and academics don't necessarily want to attend a generic training session, they would much rather participate in an authentic, value adding learning experience

"It is often stated that the introduction of technology into learning and teaching has by-products that are as important as the benefits of the technology itself: practitioners exploring new possibilities become more critically aware of their practice in general, and more conscious of the importance of planning." (Knight 2009, p. 49)

During the initial discussions regarding the delivery and support for the Summer School, the project team was aware of the need to focus on the purpose of the site and not the technology itself. The technology enabled the purpose and ensured a level of success for the intended outcomes. Through an effective technology enhanced practice, with constructivist focus, learners can use technology tools to build understanding rather than just gather information. Providing both face-to-face and online environment set up a blended learning activity may be most effective when compared with completely online and face-to-face teaching as recent report (Means et. al., 2009) suggests. This could have significant implications for the way we think about, and understand learning and teaching.

My participation in this project has helped me come to see the significance of Vygotsky's (1978) zone of proximal development (ZPD) and has improved my pedagogical practice in how I think about developing professional development activities. I've interpreted the idea of ZPD, as providing learners with activities and challenges that are just out of their reach and understanding. Through having to stretch themselves and move out of their known comfort zone, learners build new knowledge and understandings. Having discussion forums can enable learners to actively construct knowledge through the testing of their ideas and receiving feedback from the facilitators and other participants.

7. Conclusion

Parallels may be drawn between the length of this professional development (PD) activity and what might be the TAFE or university semester (or recently trimester). This study would suggest that the benefit of a learning space such as the Summer School Drupal could be an appropriate model for adoption in day-to-day TAFE and university teaching, as well as for staff PD. One factor for the success of the Summer School was the number of facilitators (one for each Module) and the presence & input of external experts as well as some instructional design, administrative and technical support. It may be useful to consider some of these factors as useful aspects of a teaching or PD format. Using team teaching, access to external industry experts & 'gurus', and access to a resource pool of other support that can be called on when required, would add value to everyone's experience. There may be risks inherent in 'opening' up the learning space by inviting new (external) participants to be involved, but if care is taken in establishing the online environment with appropriate resources and scaffolding, high levels of success are possible. Significant benefits may be realized with learners

building on not only their content knowledge but also their knowledge of learning. This benefit of 'value added' learning where participants may come to understand more than just content knowledge but are also able to come away from a learning activity having gain some experience and understanding in the tool and/or process of learning, that may not have been an intended outcome. Further studies could help to determine the most appropriate models/places/spaces for, and extent and type of peripheral learning for this type of value added experience where participants get more than they bargained for.

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