Abstract: Globalisation, including rapid changes in technology, is an example of forces that are shaping the lives of teachers in higher education. Deliberately communicating with the global academic community in order to reflect on and construct knowledge of one’s own professional practice is a means of building teacher knowledge. This paper reports the email conversation of the authors over the previous eighteen months as we explored the practical concerns of teaching, generating and answering questions drawing on our individual and shared knowledge, perspectives and practice. The central purpose of this paper is to report a case study of non-formal professional learning, and provide an explanatory overview of building knowledge about effective teaching and learning through text- and web-based conversation. We identified three elements that enabled the conditions for non-formal professional learning. (1) Using email to create a space for making meaning. Email is an example of asynchronous communication that potentially support an active process of thinking and learning by enabling interactivity and, through the expression and discussion of individual ideas, the potential for the construction of knowledge. (2) Using tacit knowledge of teaching and learning to encourage collegiality and participation. Tacit knowledge is implicit knowledge about cultural values, rules and norms of day-to-day life that influence action. In the case of teachers, tacit knowledge includes pedagogical knowledge, particularly procedural knowledge of how to teach and respond to diverse and problematic situations that arise during the teaching process. (3) A deliberate and purposeful reflective processes. Practical reflection allows the gaining of knowledge and understanding about one’s own teaching practice, to take a position about practice and to increase self-knowledge about teaching. Writing, the primary means of our conversation, is an active reflective process. When two people are conversing using writing, reading and writing involve deconstruction and construction of ideas and meaning. We found that the writing process was fundamental to the professional learning experience. Writing a series of threaded or conceptually linked emails involved a process whereby each participant attempted to make sense of and interact with the idea being discussed. While writing can be thought of as a personal act, it was clear to us that our emails over time represented a structured, purposeful and reflective process of professional knowledge construction.

Keywords: Professional Learning, Writing as Learning, Tacit Knowledge, Asynchronous Communication

Introduction

Globalisation, including rapid changes in technology, is an example of the complexity, uncertainty and contestability that is shaping the lives of teachers in higher education. Learning spaces, for example, are no longer bounded by traditional time and space limitations (Caillier & Riordan, 2009). The widespread adoption of computer mediated communication means is relatively easy to seek out and engage
Email is an example of web-based technology that allows informal collaboration between individuals with shared interests to network and create information. Deliberately seeking critical perspectives by communicating with the wider academic community in order to reflect on and construct knowledge of one’s own professional practice is a significant component of building teacher knowledge (Trigwell, Martin, Benjamin, & Prosser, 2000). Technology allows those teaching in higher education to live Bakhtin’s (1986, p. 139) assertion that “The better a person understands the degree to which he is externally determined … the closer to home he comes to understanding his real freedom”.

This paper reports the email conversation of the authors over a period of twelve months. A total of twenty-six emails, approximately ten thousand words, were exchanged over this period. We have never met each other but correspond in an informal yet purposeful manner using email. We wrote mainly about the complexities of our own teaching practice and examined the assumptions and beliefs that influenced our practice (Kane, Sandretto, & Heath, 2002). We explored the practical concerns of teaching, generating and answering questions drawing on our individual and shared knowledge, perspectives and practice.

The central purpose of this paper is to report our experience of non-formal professional learning, and provide an explanatory overview of building knowledge about teaching and learning through text- and web-based conversation.

We present an “insiders” perspective in a case study of a non-formal way to convey, deconstruct and construct meaningful practices using email (Lankshear & Knobel). To frame this paper we have used the elements that enable conditions for non-formal professional learning in higher education: a space for making meaning; the encouragement of collegiality and participation; and purposeful reflective processes (Knight, Tait, & Yorke, 2006).

Finding Time and Space for Creating Shared Meaning

Email is an example of asynchronous communication that potentially support an active process of thinking and learning (Goh, Dexter, & Murphy, 2007). The space for working created by the use of email was not closed and formally controlled but open and fluid (Lankshear & Knobel). It allowed interactivity and, through the expression and discussion of individual ideas, the potential for the construction of knowledge (Hanlin-Rowney, et al., 2006; Williams & Jacobs, 2004).

Some researchers have challenged whether the disembodied environment of email is conducive to professional learning (Bell & Morris, 2009; Thomas, 2002). In this case the environment for professional learning emerged, not only when the authors wrote emails, but in their shared occupation of an imagined reflective space where discussion of each person’s experience built shared knowledge of teaching and learning. This is coherent with the notion that a text based virtual environment can support learning if cognitive (asking questions, critical thinking, commitment and participation), social (projecting the real person, adaption of writing behaviour to reflectively explore ideas) and teaching (each person’s presence online influences the conversation) elements are present (Garrison, Anderson, & Archer, 2000).

Shared Tacit Knowledge: The Basis for Collegiality and Participation

Tacit knowledge is implicit knowledge about cultural values, rules and norms of day-to-day life that influence action (Gerholm, 1990; Giddens, 1984). Tacit knowledge allows continuity
of ordered practice across time and space. In the case of teachers, tacit knowledge includes pedagogical knowledge, particularly procedural knowledge of how to teach and respond to diverse and problematic situations that arise during the teaching process (Grigorenko, Sternberg, & Strauss, 2006). An important point is that tacit knowledge is not just about teaching technique (theory) but also the how to practically use this knowledge (practice) in a specific context.

In this case, tacit knowledge about teaching pre-service teachers in a higher education setting allowed the establishment of a set of mutual knowledge. In other words, we were conducting the same social practices in order to teach our students, even though separated in physical space. This is how we have construed tacit knowledge here – as interactive continuity between our classroom practices. We didn’t need to see each other teaching, because our tacit classroom knowledge was bought to light through a process of textual interaction. In this way our shared tacit knowledge and experience of teaching in higher education provided a basis for ongoing communication. This was framed by the dynamic balancing of intrinsic curiosity about teaching and learning; and a sense of what Bakhtin (1986) called “outsideness”.

These text-based conversations are an example of Giddens’ discursive moments. “Actors are also ordinarily able discursively to describe what they do and their reasons for doing it. However for the most part these faculties are geared to the flow of day-to-day conduct.” (Giddens, 1984, p. 281). In other words there was immediacy in our discourse located in local experience. However, the development of expertise required that we go beyond mere description of our day-to-day professional lives. Bakhtin (1986, p. 7) commented that “A meaning only reveals its depths once it has encountered and come into contact with another, foreign meaning…” The dialogic process of describing our experience, asking questions and interpreting each others written text corresponds to Bakhtin’s notion of “responsive understanding”.

Although situated in different geographic contexts, there was a shared level of tacit knowledge about the day-to-day activity and institutional conventions of teaching in a pre-service teacher education program. This shared knowledge was the basis for us to make ‘valid arguments’, ‘telling objections’, ‘insightful questions’ and so on.” (Gerholm, 1990, p. 267). Although tacit knowledge allowed for establishing familiarity and credibility, the idea of “outsideness” provided impetus for asking considered questions of each other.

**Becoming Discursive through Writing**

The third element in creating conditions for non-formal learning is a reflective process. In this case reflection was intentional written discussion of our practice. This is coherent with Bengtsson’s (1995) view that reflection allows the gaining of knowledge and understanding about one’s own teaching practice, to take a position about practice and to increase self-knowledge about teaching. McAlpine and Weston (2000) refer to this process as practical reflection - building knowledge in order to improve a specific activity, based on experience.

Writing, the primary means of our conversation, is an active process “… of constructing, creating and making” (Badley, 2009, p. 211). When two people are using writing as a form of conversation, reading can be conceptualised as deconstructing and writing as a constructive process (Badley, 2009). In this way writing becomes the means to collaboratively and reflectively explore ideas.
Writing to communicate ideas in an online environment, where many communication prompts such as facial expression are absent, means the text has to convey the explicit sense of the writer. This is somewhat difficult, if not impossible, as each word is dense with meaning. Reaching a high degree of preciseness requires organisation and thinking through of ideas, using the record of ideas for revision and reflection, and active processing of ideas during the writing process (Applebee, 1984). Our writing balanced description with nuanced questioning and affective hints that form part of normal conversation. This involved planning, monitoring, revision and reflection; although this was in no way a purely technical or linear process.

To communicate skilfully and credibly one needs not just writing strategies but to draw upon tacit knowledge, to become discursive. That is, to show how knowledge can be applied, questioned, created or developed in specific contexts. As the writing continues, some sense of shared meaning becomes clearer although many more questions and possibilities for conversation emerge.

Interaction between the Three Elements of the Model

Several extracts from our emails are examined here. Viviana was looking for somebody to discuss teacher education and learning, and trawled online through different universities and countries. When looking at Australian universities, she located Craig’s details. Viviana sent an initial email asking for some collaborative discussion about knowledge construction and teaching practices. Her questions set the scene for the discussion:

Have you some topics of interest like those?
(Viviana, email 1)

What do there your students? Can we talk about our results?
(Viviana, email 4)

A key conversational thread, quickly established, was about how to move students from passive to active participants. These examples show how the three elements of the model interacted.

It is difficult to get students to deeply involve themselves in ideas about learning. They tend to be more strategic, and want to complete the task as soon as possible…
(Craig, email 3)

I’m interested too on changing their conceptions about learning.
(Viviana, email 4)

From a broader perspective, the use of the internet challenged the idea that expertise may only be located within an individual or institution. In the space we created we assumed that expertise was distributed (Lankshear & Knobel), although relatively equal and available for sharing.

Emails created a space for creating shared meaning. In this case it was the immediacy and informality of email that allowed ideas to be described, questioned and consolidated across
different time zones and geographic space. The informality allowed a certain freedom to think through words and to respond selectively to concepts being developed over time. Emails capture to an extent, the immediacy of physical interaction, by mediating the impact of time and space. The sense of being in a meaningful and focused community of practice emerges from the email transcripts.

These initial emails established a focus for subsequent communication and the dominant thread of conversation. It established that the problem being examined was the students’ conceptions of learning. In particular, the students’ acceptance of a traditional style of teaching, where the student passively completed required tasks. Using emails to communicate provided a non-threatening and technologically simple means of overcoming the problem of geographical distance.

The students are not that keen on taking on too much control, they would rather the lecturer tell them what to do.
(Craig, email 7)

As you say, the student teachers have some very conservative ideas about teaching, learning… They say “We are not accustomed to do the control of ourselves” … We are talking about those meanings in a class session.
(Viviana, email 8)

In your email you said you were talking with your students about understanding learning as a constructive process. What were some of their comments and ideas?
(Craig, email 9)

Many students came to classes only for fulfilling the requirements, and then they sit in their chairs and wait that teachers tell them what to say, believe and think. This is the initial idea they bring to university, never before I found it so clearly, probably because I wasn’t looking for it. In our conversation students said that knowledge construction is a ‘utopia’…
(Viviana, email 10)

Matthew and Sternberg (2009) argue that practical ability to learn from experience involves cognitive processes through which tacit knowledge is applied to and modified by experience. The reflection cognitive process immediately alters the perception of the experience through interpretation and emphasis. These extracts demonstrate how we questioned each others comments, leading to questions about our own practice.

Asking each other questions was important to engage us in mutual reflection. Without the questioning process the emails were only a collection of facts.

Let me know what you think?
(Craig, email 5)

What did their ideas make you think about your teaching?
(Craig, email 7)
But, which are the ideas of your students? I want to know?
(Viviana, email 8)

Let me know your thoughts?
(Craig, email 9)

What is your conception?
(Viviana, email 17)

Our written conversation about our experience of student responses to methods of teaching was the basis for processes of reflection and critique, leading to the re-shaping of our practice. This indicates that it was the writing process that was fundamental to the professional learning experience described here. Writing a series of threaded or conceptually linked emails involved a process whereby each participant attempted to make sense of and interact with the idea being discussed. While writing can be thought of as a personal act, it was clear to us that our emails over time represented a structured, purposeful and reflective process which signalled “… without ambiguity the nature of conceptual relationships” (Emig, 1977, p. 126) involved in our teaching and learning.

To me this means we need to give the students more opportunity to reflect on what they have done, and to see what this means for them as new teachers.
(Craig, email 11)

My students tell me they feel our conversation … was the first step to change their beliefs about learning…
(Viviana, email 12)

Like you I think I need to more seriously provide a structure for reflection about the way knowledge is constructed…
(Craig, email 14)

Professionals adapt their practice in response to what they learn from experiences (Matthew & Sternberg, 2009). Experience based knowledge is context specific and develops in response to an action-learning type process. In this case, although we each had local contextual experiences, our mutual knowledge about teaching and learning was sufficiently connected through time and space to allow a common discursive process. As Giddens (1984) might argue, our text-based communication about our individual experiences made sense because of our mutual knowledge, and language, about working with pre-service teachers.

We argue that our learning was based on our attempts to discursively interpret our separate yet shared experience about the application of technical knowledge in our own context. It was the process of explaining our practical experience to each other, with the intention of finding possible solutions, which provided a method of purposefully engaging in building pedagogical knowledge and skills.

These communications opened an opportunity to resolve each individual’s local difficulties. This is clearly noted in the emails from Craig where he talks about the challenge of involving students in collaborative online learning, and where Viviana talks about the problems asso-
ciated with having a reflective conversation with her students. Then, both of us use subsequent emails to discuss possible strategies to resolve our concerns. One idea, involving both our students in a common technology-based project, did evolve over time. With the emergence of this idea, the email conversation not only served as a mechanism for reflecting on our teaching, but it increasingly allowed the achievement of individual purposes through a shared activity.

I found that I do very little effort dealing to reflection probably needed for changing. But the next time I want to probe another step.
(Viviana, email 12)

It seems that while we both have separate projects there are a common set of ideas that we have been developing.
(Craig, email 15)

I have been thinking about 2010. I would like to put an idea to you. At this stage it is an idea only – let me know what you think of this?
(Craig, email 22)

Let’s do it. It’s a very good study.
(Viviana, email 26)

With this planned activity, where our students will share their learning experiences in a wiki. This experience will attempt to overcome the limits of time, space and introduce the ideas of outsideness and social learning communities as a basis for building our students’ professional knowledge of teaching and learning in different contexts.

In this case, the written emails provided a record of agency unfolding over time (Giddens & Pierson, 1998). Agency implies power, meaning the ability to exercise choice (Giddens, 1984). The capacity to take action increased over time as the authors defined, questioned and made suggestions to resolve the question of how to increase student involvement in the learning process.

Concluding Comment

This case provides a contemporary example of the shared building of professional knowledge based on diverse, individual, tacit and situated experience. What we have reported here is a dynamic process of non-formal learning. What intrigued us, particularly as we kept writing to each other, was why did it appear to work? Our explanatory frame draws upon the conditions for non-formal teacher learning identified by Knight et al. (2006). These conditions included creating a space for making meaning, a collegial and participatory approach by participants, and a focused reflection process. In addition to meeting these conditions, we also each had to be sensitive to each others context, be prepared to share and discuss personal experiences using the effortful and somewhat clumsy means of text-based communication, and to perceive some value emerging from the process.

Mathieu (2009) asserts that agents power rests in exploring opportunities in the gap between practical and discursive knowledge; between our day-to-day activity and articulation of
meaning and possibility associated with these actions. Mathieu (2009, p. 189) argues that we ‘rarely see transcripts of what we say and do in the flow of interaction’. Writing about experience potentially allows both practical and discursive knowledge to be connected by the participants. By exploring the idea of different approaches to learning and teaching, we were asking and answering the question of what possibilities existed for change.

This process helped us to see our practice differently, to reframe our experience (Schon, 1983). It allowed us to collaboratively and reflectively make sense of the density of meaning inherent in the reports of our own ideas and activity. This is significant, as professional learning occurs when we go beneath the surface of practical knowledge, to examine our assumptions, beliefs and arguments for our activity (Kuhn, 1992).

Seeking alternative perspectives in order to reflectively construct knowledge requires time, effort and active involvement of participants (Garcia & Roblin, 2008; Ross & Bruce, 2007). In addition, being collaborative is challenging, particularly in higher education where there is a culture of the individual (Garcia & Roblin, 2008). Perhaps it is also fair to argue that there are limited opportunities for teachers in higher education to seek out and engage, in informal though purposeful ways, conversations about their practice with other like-minded colleagues. We acknowledge that our case presents a limited snap-shot of our perspectives. However, our experience is offered as an example of how text-based online communication offers one environment where educators can make personal efforts to practice the skills of being an authentic reflective practitioner.

It is reasonable to argue that when a model of teacher development includes critical reflection on experience as its basis, the participants in this process need to make strategic decisions about investing effort and energy. This case demonstrates that non-formal, although purposeful, engagement through an email conversation is a worthwhile investment in building teacher knowledge and expertise.

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**About the Authors**

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