

Online Reflections: The Implementation of Blogs in Language Teacher Education

Elaine Riordan

Department of Languages, Literature, Culture and Communication,

University of Limerick,

Ireland

Abstract

It has been pointed out that ‘today’s technologies can serve as a catalyst in their efforts to create a community of scholarship (reflection) around the practice of teaching that extends well beyond the geographic confines of any given school of education or teacher preparation institution’ (Gomez et al. 2008: 128). Technology thus allows teachers to interact in ways that previously were not possible, and teacher education should undoubtedly draw on such a resource. Indeed, research indicates that apposite technologies have the capacity to enhance teachers’ practices by promoting reflection (Pryor and Bitter 2008), and the asynchronous modes of communication in particular are reported to foster this type of metacognitive activity (Kunz et al. 2003; Preece and Moloney-Krichmar 2003; Riordan 2011).

To this end, the present chapter investigates the use of blogs as reflective diaries with student teachers on an MA in English Language Teaching programme. A corpus-based discourse analysis of student teacher reflections is provided in order to delve into the possible merits such a tool may hold for the promotion of reflective practice (Schön 1991). Further analyses based on the student teachers’ perceptions of this online application are also included. The chapter then closes with a discussion of the pedagogical implications of such research findings for the teacher education arena.

Keywords

Language teacher education

Blogs

Reflective practice

Corpus linguistics

Discourse analysis

Online Reflections:

The Implementation of Blogs in Language Teacher Education

Introduction

The implementation of technology within education is rapidly expanding, and keeping at the fore of technological advancements should be essential for language teachers and language teacher educators alike. Research indicates that apposite technologies have the capacity to enhance teachers' practices by promoting reflection (Pryor and Bitter 2008), and the asynchronous modes of communication in particular are reported to foster this type of metacognitive activity (Kunz et al. 2003; Preece and Moloney-Krichmar 2003; Riordan 2011). To this end, one specific online application being dealt with in this chapter is blogging, and the role that blogs play as reflective diaries within language teacher education (LTE).

The main aims of this research are therefore, in the context of an initial teacher education programme, to investigate the integration of blogs, to examine the use of blogs as reflective diaries, and to gain empirical evidence on student teachers' perceptions of such a tool for their personal and professional development. The key questions stemming from these aims are thus:

1. Can blogs be used as reflective diaries, and if so, to what extent do they promote reflective practice?
2. How can we capture evidence of reflective practice within this mode?
3. What levels of reflection (descriptive, comparative and critical reflection as put forward by Jay and Johnson 2002) are present within the student teachers' blogs?
4. Is there evidence of any other activity or discourse type present within the blogs?
5. Do the student teachers feel/believe they can reflect effectively within this mode?

6. What are the student teachers' perceptions/reactions towards the use of blogs?

These aims are deemed important, firstly, as the present world we live in is saturated with technology, and accordingly, it been suggested that 'the energy and intelligence students invest in these new technologies is much too valuable for the language teaching profession to ignore' (Lafford and Lafford 2005: 702). The introduction of online technologies to student teachers is therefore vital, as it is only fair to impart upon them the complete skill sets they may need to utilise as future teachers. Furthermore, there is consensus that the potential of various technologies in LTE has not been fully exploited (Barton and Haydn 2006; ChanLin et al. 2006), and this research aims at filling this gap not only by providing data regarding student teachers' use and perceptions of blogs for language pedagogy, but also by presenting an insight into the possibilities that blogs offer in aiding reflective practice (Schön, 1991: 179). Accordingly, teacher educators can draw on information concerning the use of online tools in LTE to promote student teachers' professional development, while simultaneously preparing them to employ technology in their future careers. Lastly, the notion of reflective practice is something which is difficult to define as well as depict, therefore this study endeavours to build on our understanding of reflection, to identify possible indicators of reflection, and to investigate levels of reflective activity.

A corpus-based discourse analysis of the student teacher reflections while blogging is thus employed in order to delve into the possible merits such a tool may hold for the promotion of reflective practice (Schön 1991). Further analyses emanating from questionnaires based on the student teachers' perceptions of this online application are also included. The following section deals with these areas in more detail.

Background

Technology in LTE

What is clearly relevant to this research is that ‘today’s technologies can serve as a catalyst in their efforts to create a community of scholarship (reflection) around the practice of teaching that extends well beyond the geographic confines of any given school of education or teacher preparation institution’ (Gomez et al. 2008: 128). Technology thus allows teachers to interact in ways that previously were not possible, and teacher education should undoubtedly draw on such a resource. Online technologies are increasingly making their way into LTE programmes to support teachers in initial education for a variety of reasons; current technologies can promote interaction and collaboration, and through this they can minimise student teachers’ possible feelings of isolation (Kamhi-Stein 2000; Arnold and Ducate 2006). They can also foster the formation of communities of practice (Arnold et al. 2005; Wenger et al. 2005; Hanson-Smith 2006) whereby teachers can share information, offer support and advice, and inevitably, learn from each other and from experienced teachers.

Online mentoring can also be facilitated, and one particular study on the promotion of peer mentoring was implemented by McLoughlin et al. (2007) as a result of pre-service teachers gaining only face-to-face models of teaching, which they believe causes problems when one thinks about the emphasis currently put on technology integration. Within this particular study, the novice teachers used a collaborative blog to communicate with one another, and content analysis on the blog postings indicated some recurring themes from their exchanges. These included their teaching practice (TP) experiences and reflections, issues surrounding their students, topics regarding pedagogical theory and practice, giving support and advice, sharing information, and expressing future intentions (ibid). Although their study utilised a collaborative blog, in contrast to the personal blogs being employed within this

study, the aforementioned themes arising from the discourse, and the affordances that blogs can offer are very similar, as will be seen later in the analysis section.

Reflective practice and professional development

With particular reference to this research, the use of online communication technologies are said to improve reflective practice, and professional development (Kunz et al. 2003; Coffman 2005; Murray and Hourigan 2006; Margalef García and Roblin 2008; Murray and Hourigan 2008; Pryor and Bitter 2008; Yang 2009; Riordan 2011), and while reflective practice is difficult to define (Jay and Johnson 2002; Mena-Marcos et al. 2008), it is an important feature within education contexts (Lloyd and Bahr 2010; Farr and Riordan forthcoming).

Although there are many descriptions of reflective practice (Dewey 1933; Schön 1991), the framework drawn upon here emanates from the work of Jay and Johnson (2002). Their typology of reflective practice, which derives from the work of teacher educators on the University of Washington's Teacher Education Programme, comprises three dimensions. The first, *Descriptive Reflections*, 'involves the intellectual process of 'setting the problem;' that is, determining what it is that will become the matter for reflection' (Jay and Johnson 2002: 77). This is where the student teacher describes the issue (a problem in class, a feeling, an experience, a theory etc.), so it sets the scene for the metacognitive activity. The next dimension is *Comparative Reflections*, and this involves thinking about the issue from a number of different perspectives in order to understand it more fully. This is an important step as '[w]hen we consider alternative perspectives or varying ways to approach a problem, we discover meaning we might otherwise miss' (ibid: 78). The final dimension, *Critical Reflections*, is the end result of deliberating on the issue from a number of varied perspectives, whereby 'one makes a judgement or a choice among actions, or simply integrates what one has discovered into a new and better understanding of the problem' (ibid:

79). The above three dimensions work together, and thus evolve from dealing with an issue, to looking at the issue from ‘multiple perspectives’, to gaining an overall appreciation and understanding of the issue (ibid: 78).

To this end, the notion of reflective practice within this study is seen to encompass the student teacher in a constant cycle of thinking and deliberation, with an aim to mediate action or change in their practice or understanding. This may involve student teachers thinking about themselves, and their roles as teachers; their students; classroom issues; their own practice and the general concept of pedagogy, and in doing this, they negotiate meaning, evaluate, draw conclusions, and act upon their thoughts to make informed decisions. Accordingly, it has been pointed out that ‘[t]he crucial goal of a teacher education programme is to develop teachers who can independently contemplate and critically assess their own performances to mediate judicious change’ (Farr 2005; 2011: 73). It is acknowledged that further research is needed to more fully understand reflective practice, and although Akbari (2007) finds that there is no evidence to suggest improved teacher performance through reflective practice, Farr (2011: 13) cautions that ‘[...] to say that this means that it is not an effective tool, among others, is perhaps taking it a step too far’. Indeed as Morrison (1996: 328) reveals ‘[w]here reflection prospers it is seen by many students as a major significant feature of their development in all spheres. [...] it can promote self-authentication, existential self-realisation, empowerment and transformation’.

In an attempt then to promote reflective practice, the teacher educator or peer mentor can coach the student teacher using tools such as discussions or journals (Ferraro 2000), the latter of which have had long tradition in LTE, as they are deemed useful for teachers for reviewing their values and their reasons for teaching (Richards et al. 2005). In this digital age, there has been a shift from the use of diaries and journals to that of blog writing (Margalef García and Roblin 2008; Higdon and Topaz 2009; Yang 2009), as blogs, despite their

perceived limitations, are ‘versatile in their application’, and have a lot of potential as online journals (Kunz et al. 2003: 286).

A blog or weblog is a website which is ‘usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video’ (WikiPedia 2011). Blogs are easy to create and maintain, and are therefore very attractive to the education arena (Coffman 2005). They have been used with language students and teachers alike and are said to promote reflection, self-expression and to aid student writing skills (Murray and Hourigan 2006). In research conducted by Murray and Hourigan (2008), with the use of blogs for language and technology students, their findings suggest that blogs allowed their students another means of communication, while also promoting reflection. Moreover, they observed that higher level language students reflected on a more critical plane, while the lower levels were more descriptive in their reflections (Murray and Hourigan 2008), something echoed in other similar studies (Lucas and Fleming 2011).

Furthermore, a study by Yang (2009) details the use of a collaborative blog for reflective practice with forty-three English as a Foreign Language (EFL) student teachers stemming from two teacher education programmes. Within his study, the course instructors set up the blog and the student teachers were required to reflect weekly on their teaching experiences. They were also encouraged to comment on one another’s posts to promote collaboration. When analysing the blog contents, he sorted the postings into the following five categories: theories of teaching; instructional approaches and methods; teaching evaluation methods and criteria; self-awareness; and questions about teaching and requests for advice (Yang 2009: 15), which are somewhat similar to those outlined by McLoughlin et al. (2007). Yang’s overall findings suggest that the student teachers were often more descriptive in their reflections than critical, however, he asserts that the instructors played a

role during the process in that they posted questions in order to encourage more critical deliberations (Yang 2009).

In summary, it is therefore believed that online communication is a cost-effective method of promoting professional development, without time and space restrictions (Anderson and Kanuka 1997; Kanuka and Anderson 1998). A diversity of asynchronous devices are hypothesised to facilitate metacognition, reflection, support, and collaborative problem-solving (Hawkes and Romiszowski 2001; Han and Hill 2006; Montero et al. 2007; Margalef García and Roblin 2008; Higdon and Topaz 2009), and research indicates that if student teachers use technology in their teacher education programmes, they perceive its use as learners, which may aid them in evaluating the technology when they themselves begin their careers, thus expanding their knowledge and expertise and, in turn, possibly increasing integration (Arnold and Ducate 2006). The following section moves on to the details surrounding the study in question.

Methodology

This research makes up part of a larger project, using a variety of data collection techniques, such as questionnaires, interviews, and face-to-face as well as online discussions within three modes (blogs, chatrooms and discussion forums). However, for the purposes of this chapter, data emanating from the blogs and interviews is analysed and presented.

Data Collection

The data was collected in the Autumn Semesters from September to December 2007¹, 2008 and 2009 from three cohorts of students enrolled in a one-year University MA in ELT

¹ The first year was a pilot study which is included in the analysis here as only one student blogged in 2008, as a result of participation being voluntary. The pilot study was very successful with regards those who used blogs therefore is deemed important for inclusion within the analysis. The methodology employed for the pilot study and the main study was similar, in fact the only minor change was a rewording of some questions, for reasons of clarity, on the questionnaire. The methods of data collection techniques remained constant. Similarly, others

programme. Prospective participants were briefed on the project and those who volunteered to partake were offered a one-hour training session where they were introduced to the different tools that would be used. The participants were then invited to join activities for the duration of the semester. They used www.blogger.com to set up their personal reflective online journals, and were given topics that could be used to focus their reflections, however, they were free to add their own. Some suggested topics for consideration included their feelings about teaching and being observed, opinions on lesson planning, relationships with their students, what they feel their students gain from their classes, and any unexpected situations that arise in class and how they are dealt with. Although no training in reflective practice was given to participants for this study, there is a strong culture of reflective practice running through their MA programme, so they are indeed familiar with the process.

The student teachers were asked to commence their blogs in Week 7 of the fifteen-week semester and were invited to blog until the end of the semester or as long as they wished. The researcher/peer mentor was the only other person reading the reflections, and she did not post comments directly to the blogs, in order to maintain as much privacy for the participants as possible. A final, albeit significant, point to note is that these blogs were unassessed, in formal summative terms. Participation was voluntary and not proposed or encouraged by a lecturer, and this may have had an impact on the interpersonal meanings created and divulged within the discourse of the blogs, something which will be returned to in later sections.

The Data

A total of twelve students completed blogs (four in 2007, one in 2008 and seven in 2009), and the content varied from very lengthy and frequent posting to minimal posting, however for the purposes of this chapter, all are included for the linguistic analysis. Once all

accept the inclusion of pilot study data if it offers valuable data, and if the research design remains stable (Altman et al. 2006; van Teijlingen and Hundley 2001).

student teachers had completed their blog entries, a corpus was compiled, following the criteria set out by Farr et al. (2004) for the Limerick Corpus of Irish English (L-CIE), and was analysed using Wordsmith Tools (Scott 2008). The BLOG corpus thus consists of approximately 31,000 words in total, and is analysed for indications of reflection using a corpus-based discourse analysis approach.

Methodological Issues

The main methods used for this analysis are corpus-assisted discourse analysis/studies (CADS – Partington 2003), as well as content analysis. Corpus-based discourse analysis is seen as beneficial in that it adds a quantitative dimension to a qualitative framework (McCarthy 2001), and is utilised here to obtain an overview of the blogs and to illustrate what is present within them. Therefore frequency and keyword lists², as well as the manual examination of concordances are generated for the analysis. Content analysis is then used to get further behind the discourse, and to categorise the recurring themes within the blogs in order to expand on the analysis. Finally, data from semi-structured interviews administered after the student teachers had participated in the blog writing are dealt with in order to depict their perceptions on the use of blogs for the purposes of reflective practice.

In addition, although it has been pointed out that ‘[q]ualitative researchers have no “golden key” to validity’ (Silverman 2005: 211), several measures were taken to maximise validity. Namely, the data and methods utilised in this study are triangulated, for example, questionnaire data, interview data, and blog data, as well as quantitative, qualitative and corpus-based methods, thus this combination of different types of data and types of methods aims to reduce threats against validity (Berg 2009). Moreover, the interviews were recorded and transcribed, and follow the format of informal interviews, a technique, which Jorgensen highlights, allows for systematic questioning where the researcher has a ‘definite sense of

² A frequency list is a list of the words that appear in a corpus with their frequencies and the percentage they contribute to the corpus as a whole. A keyword list compares a chosen corpus to a general corpus in order to illuminate words which are ‘unusually frequent’ compared to their frequency in other texts (Scott 2008).

precisely what questions are relevant' (1989: 89). These are also known as standardised open-ended interviews, and the consistent wording of questions is said to reduce bias and minimize variation and probing (Quinn-Patton 2002).³ The researcher was therefore very aware of her interview techniques (i.e. not leading the participants, not asking more than one thing of them at a time, allowing participants to get clarity on questions, and asking internal checking questions).

Furthermore, the researcher adhered to considerations set out by practitioners to maximise validity during data analyses. For example, Silverman (2005) considers looking at all possible interpretations of the data rather than making assumptions that appear logical or easy, looking for and analysing deviant cases, and using comprehensive data sets to ground the analysis, and Quinn Patton (2002: 544-66) suggests the following:

1. Testing rival explanations: looking for things that oppose findings
2. Negative cases: investigating something that does not fit the pattern
3. Triangulation (in this case, there is triangulation of methods (quantitative, qualitative, and corpus-based), as well as triangulation of data (questionnaires, interviews, blog interactions))
4. Keeping data in context and not making generalisations.

The results obtained from the data are presented in the following section.

Analysis

Quantitative and qualitative corpus-based analyses are presented in the first two sections here as a means of obtaining an initial overview of the BLOG corpus, and the following section then moves into a more content analysis approach in order to identify connections or yield new findings without losing the richness of the blogs data. These are the

³ It must be noted that for this study, there was slight variation in what questions were asked, as not all questions were relevant to all participants, due to the mixed participation within the study as a result of it being voluntary and non-assessed.

first steps taken in order to provide some framework to capture aspects of reflection within the data, however it is acknowledged that more detailed analyses will be needed in future in order to establish the full extent of critical reflection. This section then closes by examining interview results with the aim of getting behind the discourse by investigating the student teachers' perceived efficacy of blogs in promoting reflective practice.

Word Frequency and Keyword Analysis

The generation of frequency lists was utilised as this type of analysis is considered a useful starting point for corpus investigations (Baker 2006), and it has the capacity to 'give very strong clues about the communicative function and nature of specific contexts' (Farr and Riordan forthcoming). Table XXX therefore shows the top fifty most frequent items from the BLOG corpus compared to the Limerick Corpus of Irish English (L-CIE), a one-million word corpus of spoken, casual conversation (Farr et al. 2004), and to the written component of the British National Corpus (BNC) sampler corpus of one million words (1999).

Table XX: Top 50 most frequent words across corpora⁴

F.	BLOG	L-CIE (Spoken)	BNC (Written)
1	THE	THE	THE
2	TO	I	OF
3	AND	YOU	AND
4	I	AND	TO
5	A	TO	A
6	OF	IT	IN
7	IN	A	FOR
8	IS	THAT	IS
9	THAT	OF	THAT
10	IT	IN	WAS
11	NOT	YEAH	IT
12	AT	WAS	ON
13	MY	IS	BE
14	FOR	LIKE	WITH
15	AS	KNOW	AS
16	BY	HE	BY
17	WAS	THEY	I
18	HAVE	ON	AT
19	ON	HAVE	ARE
20	BE	BUT	HE
21	THIS	NO	FROM
22	YOU	THERE	THIS
23	WITH	WHAT	HAVE
24	ARE	FOR	NOT
25	BUT	BE	BUT

⁴ Words highlighted are those which may signify reflection and are therefore worthy of discussion.

26	STUDENTS	SO	YOU
27	THEY	DO	HIS
28	AM	WE	AN
29	ME	IT'S	WHICH
30	DO	AH	HAD
31	ABOUT	SHE	OR
32	WHAT	NOW	THEY
33	SO	ALL	WERE
34	WOULD	OH	WILL
35	GOOD	ARE	ALL
36	OR	AM	WE
37	AN	JUST	ONE
38	ONE	ONE	HAS
39	HOW	THIS	THEIR
40	CAN	AT	BEEN
41	CLASS	WITH	THERE
42	FROM	OR	SAID
43	THINK	NOT	SHE
44	THERE	WELL	HER
45	HAD	THAT'S	WOULD
46	ALL	DON'T	IF
47	WE	IF	UP
48	LANGUAGE	GOING	MORE
49	THEM	THEM	CAN
50	WHEN	GO	WHO

There are words which fall into five main categories here. These appear to suggest reflection and include personal narration, metalanguage, affective engagement, cognitive engagement and evaluation. These are somewhat similar and based upon those found by Farr (2007a; 2011), who analyses reflection within a corpus of spoken and written teaching practice feedback. What is first apparent here, is the use of items which reflect personal narration, *I*, *my*, *was*, *am*, *me* and *we*. Words such as these may indicate that the student teachers are using this mode to give personal recounts, or simply personal information, and it may be proposed that a focus on the self is somewhat evident of introspection and reflection. What is also noteworthy is that *my* and *me* are unique to the BLOG corpus top fifty (relative to L-CIE and the BNC), and this may again indicate the intended personal nature of this mode. Further qualitative analysis through a random sample of concordance lines of *I* indicates that much of the data refers to the student teachers introducing themselves online, possibly creating a web presence and an online voice (Stevens 2003). Also relevant here, is that they are thinking about their pedagogical experiences. From the selected examples in

Figure XXX, we can see that the student teachers focus their thoughts on themselves as novice teachers (see lines 1, 2, 4, and 10 for example) while also on their students and their lessons (lines 7 and 8), and the art of teaching (lines 6 and 9), which is what we encourage novice teachers to reflect upon so that they can get a better understanding of their practice. If we then attempt to map these against the dimensions put forward by Jay and Johnson (2002), it appears that the student teachers are being mostly descriptive in their reflections, although in lines 6 and 9 they may be veering more towards comparative reflection as the examples point to issues of outside knowledge (methods of language teaching), and therefore the teachers are drawing on research (using multiple perspectives) to further their understanding of certain issues.

Figure XX: I concordance

N Concordance
 1 If only I would have realized earlier that I could have challenged myself in the
 2 the first time I was formally observed. I was nervous, about everything. Even
 3 pointed out. never mind. i do know that i have lots and lots of faults and i have
 4 plan your lessons? Why/why not? Yes! I am a natural planner by nature (and at
 5 becoming confused and uninterested. I think teaching is difficulty enough
 6 than skim over three or four things, and I think students prefer that too. I think
 7 so I hope the students did too. Also I had built up a nice rapport with the two
 8 of their school publications. certainly, i do not consider myself to be a "good"
 9 far is the community learning method. i like the fact that learners can be in a
 10 I really want to hang in there. I guess I will have good and bad days so with the

Furthermore, the use of *we* may indicate their feeling of belonging to a community of practising teachers (Lave and Wenger 1991; Wenger 1998), and indeed a concordance search of this item proves that this is the case, with approximately 60 per cent of occurrences of *we* referring to the participants themselves as a group of novice teachers. Additional examination of the other features signifying personal narration might illuminate this idea further.

The second group of items highlighted in Table XXX is the metadiscourse surrounding teaching: *students*, *class*, and *language* being specific to the top fifty BLOG corpus, as anticipated. From the salience of this metadiscourse, we may assume that the student teachers are referring to, and therefore thinking about, the art of teaching, and

reflecting to some degree on their practice. The last three groups of words specific to the BLOG corpus include those representing affective engagement, cognitive engagement and evaluation. For example, *think* may signify both affective opining or cognitive activity, *about*, *how* and *when* may indicate self-inquiry where the teachers are posing questions based on their teaching, and *good* may denote evaluation, all of which may suggest, albeit tentatively, metacognition and reflection. These items will be returned to in more detail in the next section.

Following the compilation of frequency lists, it was considered necessary to generate a keyword search in order to further examine the corpus. For this, the BLOG corpus was compared against L-CIE, and also against the BNC sampler corpus. What became apparent when compared against both reference corpora was that the items found to be key to the BLOG corpus often fell into the aforementioned categories. Therefore, keywords in the BLOG corpus include items possibly representing personal narration (*me*, *I* and *am*), metadiscourse (*teach*, *lessons* and *students*), cognitive engagement (*think*) and affective engagement and/or evaluation (*feel*). What is found here again resonates somewhat with Farr's (2007a: 2011: 76) findings, as she notes that

Searching through and extracting from the top 200 most frequent items in POTTI and POR⁵, reflection is suggested primarily through the high occurrences of interrogative/relative pronouns, verbs of reflection/cognition/perception, and narrative verbs especially in past tense forms.

The brief examination of the frequency and keyword lists above therefore suggests reflection within the corpus, although additional analysis is necessary in order to explore this in more depth.

⁵ These are corpora compiled in the teacher education context in Ireland. POTTI (Post Observation Trainer Trainee Interactions) is a spoken corpus of feedback delivered after teaching practice sessions, and POR (Post Observation Reports) is a written corpus consisting of written reports compiled by tutors and subsequently returned to the student teachers after their teaching practice.

Indicators of reflection

In order to get a more comprehensive representation of possible reflection within the data, it was decided to analyse the blogs in terms of personal narration, cognitive engagement, affective engagement (Farr 2007b; 2011), and evaluation. These can be assessed through the investigation of the presence of stance which, expressed through grammatical, lexical, and paralinguistic devices (Biber et al. 1999), ‘is generally understood to have to do with the methods, linguistic and other, by which interactants create and signal relationships with the propositions they utter and with the people they interact with’ (Johnstone 2009: 30-1). The framework for this section of the analysis is thus similar to that utilised by Farr and Riordan (forthcoming), which was also undertaken for the same purposes of investigating reflective practice. In this case, the categories of verbs and adjectives were chosen for the analysis, and Table XXX depicts the most frequent verbs having the potential to indicate reflection (all forms of the verbs have been included in the frequencies and have been normalised to words per million). It must firstly be noted that only verbs used in the first person were selected for generating statistics in order to focus on the use of these verbs from the student teachers’ individual perspectives, because although 2nd and 3rd person speaker contributions ‘express some kind of attitude or evaluation, they do not necessarily reflect the personal stance of the speaker/writer’ (Biber 2006: 91). Secondly, all other functions other than those expressing stance have been disregarded from the investigation (for example, the use of the hedge *you know*). The results can be seen in Table XXX.

Table XX: Verbs as indicators of reflection

<i>Verbs</i>	<i>W/pm</i>
THINK* ⁶	3131
FEEL*	1677
KNOW*	999
TRY*	806
LIKE*	742

⁶ * denotes that all forms of the verbs were searched for (i.e. think, thinks, thinking, thought etc.)

FIND*	581
HOPE*	419
BELIEVE*	387
WISH*	258
UNDERSTAND*	258

What is noteworthy here is that the cognitive verb *think* is the most frequent (as was also demonstrated in both frequency and keyword analyses in previous sections), and within the same category of possible cognitive items are *know*, *believe* and *understand*. These types of mental processing verbs are exactly what we hope to find in a corpus of reflective activity, and as can be seen in the examples in Figure XXX below, *think* is being used by the student teachers to focus on themselves (lines 4, 5 and 10), and their teaching and students (lines 1, 2, 8, and 9), thus possibly implying consideration and reflection. What becomes evident here, is that the levels of reflection appear to fall into the dimensions of both descriptive and possibly comparative (in line 3 the teacher uses some previous experience to inform her knowledge about herself as a teacher) (Jay and Johnson 2002). Added investigation, which lies outside the scope of the present analysis, is needed here to fully depict the levels of reflection.

Figure XX: *Think concordance**

N Concordance
1 Yes I do. Sometimes it may not be much but I do *think* students always learn something. This is
2 information about Ireland while i was doing the tp. I *think* that was good but at the end of the lesson, the
3 matter what the teacher does. everything is lost. i *think* i should not teach in groups where there are
4 because I know it is a result of my own efforts. I *think* my strengths are my ability to empathise with
5 I was never aware of up until then (and now). I *think* I'm a good teacher, and I've had lots of
6 better than i do mine.) i came over to ul because i *think* i am not a good teacher and i need/ed to
7 to be tactful while still getting their point across. I *think* that most student teachers don't have a big
8 WEDNESDAY, OCTOBER 24, 2007 1. I *think* my teaching is improving. My nerves are
9 rather than skim over three or four things, and I *think* students prefer that too. I think that the
10 something from my classes? Yes, absolutely. I *think* I'm pretty good at knowing how much to teach

Furthermore, as seen in Table XXX, the category of emotive/affective verbs *feel*, *like*, *find*, *hope* and *wish*, make up a large part of the overall frequencies, and can express opinions, affect, and add to the personal narrative of the corpus. The examples taken for *feel* in Figure XXX demonstrate how the student teachers express their personal feelings and

attitudes (lines 4 and 6), how they feel about their teaching (lines 5 and 9), and their students (lines 1 and 10), and all of the examples here appear to indicate, yet again, descriptive reflections (Jay and Johnson 2002).

Figure XX: *Feel concordance**

N Concordance
 1 stress level. When I start teaching I will certainly **feel** sympathetic to students when they don't get the
 2 has an effect on teachers and students? Yes I do **feel** this. I feel that when the class is arranged in a
 3 TUESDAY, OCTOBER 27, 2009 How do I **feel** about student teachers being observed? I think
 4 I'm looking forward to the weekend away but I **feel** very guilty for going away the weekend before
 5 not feeling very positive. Though it is early days, I **feel** my progress hasn't been as good as it should
 6 everything else college related. In a nut-shell, I **feel** that college so far is just that of teaching. I
 7 by limerickladyee at 10:46 AM 0 comments How I **feel** about my own teaching... At the moment I am
 8 before hand and I practiced the transcribing. I **feel** I didn't get the chance to diosplay what I know,
 9 like my science and maths. Well thats how I **feel** about teaching! Gotta go FRIDAY, OCTOBER 2,
 10 by limerickladyee at 11:28 AM 0 comments Do I **feel** students learn something from my class... I like

Finally, the verb *try* adds to the evaluative aspect of the blogs. The student teachers are retelling events and expressing what they themselves have done or strived to do in a classroom, and most of the data (see Figure XXX) suggests that they are very much focussed on themselves, which is not surprising as they are novice teachers. It may be interesting to point out that although the reflections appear to indicate descriptive narratives, line 9 may fall into the critical reflection dimension (Jay and Johnson 2002), whereby the student teacher translates experiences from previous actions into a new understanding of something.

Figure XXX: *Try concordance**

N Concordance
 1 method by putting sentences on the board and **trying** to elicit the rules on the modal verbs from
 2 hanging over your head, finding when to do them and **trying** to organise them around your own time table.
 3 a particular lesson to a particular student, and I don't **try** to give them too much at one time. I prefer to cover
 4 my take on it. Just wait until next semester when I **try** student teaching and I'll be eating my words.
 5 i do not consider myself to be a "good" teacher but i **try** to accept myself with all my faults and i love them
 6 experiences and what they can bring to the class. I **try** to balance between being professional as a teacher
 7 and thoroughly understand. I don't see much point in **trying** to "trip them up" with unexpected exam
 8 useful one. Google itself is not the problem, and it is **trying** to become part of the answer with initiatives
 9 and i was not observed. i had taken the decision to **try** something "new" and i did it. it took me quite a
 10 is good, then i get some energy for the next day, to **try** again. i am not a perfectionist and i do not believe

The next section of the analysis moves on to investigate adjectives as indicators of reflection as they can often mark stance and evaluation (Farr and Riordan forthcoming). As

with the verbs above, only items indicating stance are included, and are presented in Table XXX.

Table XX: Adjectives as indicators of reflection

<i>Adjectives</i>	<i>W/pm</i>
GOOD	3099
GREAT	710
IMPORTANT	613
BAD	581
HARD	548
EASY	355
DIFFICULT	322
POSITIVE	322
BETTER	290
HAPPY	225

Firstly, *good* appears as the most frequent item, which is not surprising as it emerged as a prominent feature from the frequency list analysis discussed earlier. What may be interesting to note here is the divide between positive and negative evaluative items. Some of the items within the examples below, which at first glance appear as being positive, indicate that not only do the student teachers use these words to indicate positive evaluations (*good, great, important, better* and *happy*), but they also evaluate negative or less positive situations (*easy* and *positive*). Nevertheless, these evaluations encompass the area of teaching and pedagogy.

1. I think I'm a *good* teacher
2. I have had some *great* and some awful lessons
3. Relating to students is *important*
4. With adults, however it isn't as *easy* to gauge how things are going
5. At the moment I'm not feeling very *positive*
6. It [a lesson] couldn't have gone *better*
7. I felt *happy* and excited at the same time [after a lesson]

While investigating the examples of negative evaluative items, it was found that the student teachers are focussing on what they perceive as challenging for them as teachers.

8. I guess I will have good and *bad* days
9. I have improved on the *bad* stuff [re. teaching]
10. [...] it is very *hard* to judge how you did or what grades you are getting
11. I just find it so *hard* to distinguish between all the different word classes
12. Also I am finding it *difficult* judging their [students] previous knowledge
13. At first I found it *difficult* to relate to ERASMUS students

In summary, the use of adjectives within the corpus suggests that regardless of whether the student teachers are being positive or negative about certain situations, they appear to be focussed on discussing their teaching and their students, albeit in a rather descriptive manner. This, along with the analysis of the verbs, therefore leads us to believe that they are reflecting on some level about their experiences in their newfound practice. There are, however, similar reservations here to those expressed by Farr and Riordan (forthcoming) regarding the quality of these reflections and whether they are indeed critically reflecting or talking about reflecting, and more extensive analysis, which lies outside the scope of this present chapter, will illuminate this further. The following section now turns to some themes that arose from exploring the content of the blogs in order to get a fuller picture of the data.

Recurring themes

As was mentioned previously, the student teachers were given questions they could use to focus their blog postings, although they were free to blog as they wished, and different participants chose varied routes. From a more content analysis approach, the blogs were explored and recurring features found within them are now presented. Although, this may appear a rudimentary endeavour, the analysis of recurring themes is considered worthwhile in order to build upon previous assumptions, or indeed generate further insights. What needs to be forwarded here is the fact that although the blogs were to encourage reflective practice, they were un-assessed, and read only by the researcher, who was not in an authoritative role.

This may have had an impact on what the student teachers blogged about, and how the interpersonal meanings within the blogs may differ from those when interacting with a lecturer, for example.

What is noticeable, firstly, is the student teachers often expressed their personal problems and anxieties with regards their teaching as well as their students, and the two examples below illustrate this clearly:

14. I have no idea how I could make my classes more successful

15. I hope I can be a good teacher

These examples also relate back to the issue of affective engagement mentioned in earlier sections. Furthermore, the student teachers appeared to use the blogs as somewhere they could vent and complain. They did so about their students, their classes, their lecturers and often their own teaching. These complaints may be due to a number of factors. As was previously mentioned they were very much aware that the peer mentor/researcher was not in an authoritative role therefore they may have felt more at ease expressing their true feelings, and secondly the blogs were private and confidential, so they knew they could be as honest as they wished. Another factor that may have influenced the frequent expression of complaints was that they were online rather than face-to-face so they were possibly more open, something also expressed in research on distance learning (Kostina 2011). This is also something Farr (2011: 89) suggests as she notes ‘Any confrontational tendencies they may have often surface in their own written reflections which come in their TP diaries’. Again this may relate to issues of affective engagement in that the student teachers may find it easier to express their feelings and attitudes in written form (blogs) than in face-to-face interactions.

Something which also emerged was that the blog postings were very personal, and sometimes centred on subjects outside the realm of teaching, and this may be due the confidentiality factor discussed earlier. There was also a lot of humour being displayed within

the blogs, and as the researcher was familiar with all students outside of this project, she noticed that often quite shy students in a face-to-face setting were those who came out of their shell within the online setting, something which has been indicated in other research on chatrooms discussions (Beauvois 1998). The humorous example from the student below concerns a lecturer who appeared to reprimand the student teacher in front of her peers, and she notes:

16. The whole class seemed to be structured around my weaknesses, which did nothing to lower my affective filter, Mr. Krashen.

What is most interesting here is that, while she is in fact complaining about something, she does so through the use of humour (possibly softening the effect), but she also uses her prior knowledge of Krashen's (1985) Affective Filter Hypothesis (a theory they cover as part of their MA programme) to create the effect. This suggests that she is indeed using the content of what she was learning on the course (the aforementioned cognitive aspect), and inputting the information into her blog by reflecting on what she knows and how she interprets it (the aforementioned evaluative aspect), and this may be thus aligned with the dimension of comparative reflection.

The final major theme arising from the analysis of the blogs was the student teachers seem to be contemplating a number of elements: their students, themselves as teachers, their MA course and their classes. As was seen also in the previous sections, these postings were both positive and negative, and they mainly fall under both descriptive and comparative reflections rather than moving into the critical plane.

17. <\$> I think I'm pretty good at knowing how much to teach in a particular lesson to a particular student

18. <\$> After thinking about it, I decided that I used poor strategy planning for the exam

19. <\$>I obviously hope students do learn from my classes but between my lack of experience and the structure of the book I sometimes feel they are just going through the motions of the class and not actually taking anything from it

Additionally, some keywords appear, for example, affective items (*feel, hope*), and cognitive items (*think, know*) are often recurring tokens.

What can be surmised from this analysis is that the blogs offered the student teachers a place to voice their opinions on various subjects, and the possibility of evaluating and thinking about certain pedagogical areas, which may lead to deliberation and reflection. What has also been observed is that the topics divulged by the student teachers (the strong focus on their teaching, areas connected to pedagogy, evaluation, and their own self-awareness) are somewhat similar to those categorised by previous researchers (McLoughlin et al. 2007; Yang 2009). Furthermore, the themes of sharing personal information, divulging personal anxieties, complaining, expressing humour, and deliberating on their teaching and their students, which dominate the BLOG corpus may be a result of the fact that no power relationships existed between the student teacher, and the researcher, thus possibly allowing more honesty and freedom to express true opinions and judgements. Overall, the deliberations of the student teachers appear very much descriptive. This may not mean that the student teachers are not critically reflecting, but the ‘framework’ outlined above may be more suitable at capturing evidence of descriptive reflections and further analyses may indeed bring more critical reflections to light.

Student teacher perceptions

This final section now moves away from the reflective aspect of the language and into the student teachers’ perceptions of blogs for reflection. Although in total twelve student teachers created blogs, only eight of those were available for an interview, and despite this being quite a small number, the results should offer an insight into general reactions towards the tool for those involved. The data presented here does not attempt to suggest that the perceptions are universal, nor does it attempt to provide evidence of reflective practice

through blogging, but it is merely used to add further qualitative data to examine attitudes towards blogs.

During the interview, each participant was asked whether they liked using blogs, and all reported to enjoying the use of such a tool. As was mentioned earlier, this was part of a larger research project also involving the use of chat and discussion fora, hence the participants were asked which online application they preferred, and 62.5 per cent preferred the use of blogs above the other applications. Reasons set out for this included that they felt blogs were easy to set up and maintain, the process provided them with ideas for the use of this tool in their future lessons, the blogs gave them a space to express their thoughts and opinions (as is demonstrated from the sections above where personal narration, opining, and affective engagement are evident), and the asynchronicity of the mode offered more of an opportunity to think about what they were writing and therefore reflect more. However, one student commented that he did not reflect much on his teaching but reflected merely on a personal level (which is evident from previous examples, and is possibly a result of the blogs being un-assessed). Another student teacher, aptly, pointed out that those who fully participated in this specific project might be the students who reflect more anyway.

Bearing this in mind, the use of blogs within this project appear to be looked upon favourably by the participants for a diversity of reasons, and while they feel they had the opportunity to reflect within this mode, they seem to be descriptively reflecting rather than critically reflecting, something which warrants further investigation. The final section offers a discussion of the key findings as pertaining to the original research questions.

Conclusions and recommendations

As previously underlined, blogs have been described as a 'promising candidate' for encouraging online reflection (Kunz et al. 2003: 286), and what becomes apparent from the

analysis above is that from a corpus-based linguistic investigation, there is some evidence of reflection through the presence of specific language occurring within the BLOG corpus, and this type of reflection is quite descriptive (Jay and Johnson 2002). If we return to our original research questions as set out in the first section, we may get a better representation of what blogs offered in terms of reflective practice:

1. *Can blogs be used as reflective diaries, and if so, to what extent do they promote reflective practice?*

It appears that blogs do have the potential to be used as reflective diaries, the asynchronicity of the mode fosters reflection, and there is evidence of reflective discourse within the blogs, albeit on a descriptive plane, rather than a critical plane. Further analysis is required to examine the extent to which they promote critical reflective practice.

2. *How can we capture evidence of reflective practice within this mode?*

Frequency and keyword analyses, and concordance analysis of possible indicators of reflection indicate that elements set out by Farr (2005; 2007a; 2011), pertaining to evaluation, affective engagement, cognitive engagement and personal narration, are visible in the corpus, therefore tentatively suggesting the presence of reflection. The language emerging from these proposed indicators of reflection demonstrate that the student teachers are using such devices to talk about themselves as teachers, their students, and the art of teaching. Moreover the themes recurring from the content analysis (personal problems and anxieties with regards teaching and students; complaining; being personal; centring on subjects outside the realm of teaching) allow further aspects of the discourse to emerge.

3. *What levels of reflection (descriptive, comparative and critical reflection as put forward by Jay and Johnson 2002) are present within the student teachers' blogs?*

The reflections appear to be generally descriptive, findings which are indeed similar to other research (Murray and Hourigan 2008; Yang 2009). However, it has been suggested that

‘[j]ust because reflection is not critical does not mean it is unimportant or unnecessary’ (Brookfield 1995: 8), and therefore it is surmised that although they are not reflecting on the critical dimension, their descriptive reflections are still worthwhile, and possibly over time they can make the transition. Furthermore, it may also be worth a note that the student teachers in question here did not have the guidance of a TP tutor/lecturer to promote critical reflection, and therefore this could have had an impact on the levels of reflection found, something that will be focussed on in future analyses. What is necessary now is to move forward with a framework to investigate critical reflective practice, and to uncover features or items that may indicate this level of reflection.

4. *Is there evidence of any other activity or discourse type present within the blogs?*

The blogs appeared to offer the student teachers a space for other activities, which lie outside the realm of professional reflection, in that they often complained and expressed very personal information, often without a focus on their teaching or their students, and this is possibly something which warrants further investigation. The role of the researcher as a peer mentor may also have an impact here as the interpersonal meanings may shift depending on the type of activity (an un-assessed task), and type of interaction (student teacher and peer mentor).

5. *Do the student teachers feel/believe they can reflect within this mode?*

The student teachers reported that they did believe they got the opportunity to reflect within this mode, however it must be acknowledged that firstly they might be the ones who reflect more (as was pointed out by one participant), and also they may merely be reporting on the basis of what they know the researcher was looking for.

6. *What are the student teachers' perceptions/reactions towards the use of blogs?*

The participants appeared to be positive about the use of blogs for reflective practice, and indeed some highlighted that they would like to use such a tool in their future teaching. The notion of technology integration is also something to be expanded upon in future analyses.

What therefore comes to the fore is that there does appear to be evidence of descriptive reflection throughout the BLOG corpus. The items discussed appear to demonstrate this level of reflection, and the students overall generally favoured writing on their blogs, and saw the benefits of doing this. What is vital for ongoing research in this area is a focus on the depth of reflection being executed and any other factors that may influence such reflective practices. As was stated previously, the depth and quality of reflection has not been truly investigated in this chapter, but is very worthy of scrutinisation for the purposes of evaluating the levels of thinking and metacognition on the part of the student teachers. Therefore, subsequent research needs to concentrate on frameworks for evaluating critical reflection and what its possible outcomes are. What this current chapter does offer to this area is an insight into the value of blogs, in that they are perceived in a positive light by the student teachers in question, and that they also have the potential to promote some degree of reflective activity, and it is surmised that if teachers begin their career on a path of reflective activity, this may give them a better understanding of themselves and their students, which can only serve to benefit them in their future careers.

References

- Akbari, R. (2007). 'Reflections on reflection: A critical appraisal of reflective practices in L2 teacher education', *System*, 35, 192-207.
- Altman, D., Burton, N., Cuthill, I., Festing, M., Hutton, J. and Playle, L. (2006). 'Why do a pilot study?' *NC3Rs Experimental Design Working Group*.
<www.nc3rs.org.uk/downloaddoc.asp?id=400> accessed 20 February 2012.

- Anderson, T. and Kanuka, H. (1997). 'On-line forums: New platforms for professional development and group collaboration', *Journal of Computer Mediated Communication*, 3 (3) <<http://jcmc.indiana.edu/vol3/issue3/anderson.html>> accessed 17 June 2009.
- Arnold, N. and Ducate, L. (2006). 'Future foreign language teachers' social and cognitive collaboration in an online environment', *Language Learning and Technology*, 10 (1), 42-66.
- Arnold, N., Ducate, L., Lomicka, L., and Lord, G. (2005). 'Using Computer-mediated communication to establish social and supportive environments in teacher education', *CALICO Journal*, 22 (3), 537-565.
- Baker, P. (2006). *Using Corpora in Discourse Analysis*. London: Continuum.
- Barton, R. and Haydn, T. (2006). 'Trainee teachers' views on what helps them to use information and communication technology effectively in their subject teaching', *Journal of Computer Assisted Learning*, 22, 257-272.
- Beauvois, M.H. (1998). 'Conversations in slow motion. Computer-mediated communication in the foreign language classroom', *Canadian Modern Language Review*, 54, 198-214.
- Berg, B. L. (2009). *Qualitative Research Methods*. Boston: Pearson Education.
- Biber, D. (2006). *University Language. A Corpus-based Study of Spoken and Written Registers*. Amsterdam: John Benjamins.
- Biber, D., Johansson, S., Leech, G., Conrad, S., and Finnegan, E. (1999). *Longman Grammar of Spoken and Written English*. London: Longman.
- BNC (1999). *The BNC Sampler Corpus*. Oxford: Oxford University Computing Services.
- Brookfield, S. (1995). *Becoming a Critically Reflective Teacher*. San Francisco: Jossey-Bass.
- ChanLin, L. J., Hong, J. C., Horng, J. S., Chang, S. H., and Chu, H. C. (2006). 'Factors influencing technology integration in teaching: A Taiwanese perspective', *Innovations in Education and Teaching International*, 43 (1), 57-68.
- Coffman, T. (2005). 'Weblogs and wikis in the classroom', *Virginia Society for Technology in Education Journal*, 19 (2), 2-8.
- Dewey, J. (1933). *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. Boston: DC Heath and Company.
- Farr, F. (2005). 'Reflecting on reflections: The spoken word as a professional development tool in language teacher education'. In R. Hughes (ed.), *Spoken English, Applied Linguistics and TESOL: Challenges for Theory and Practice*, pp. 182-215. Hampshire: Palgrave Macmillan.
- Farr, F. (2007a). 'Spoken language as an aid to reflective practice in language teacher education: Using a specialised corpus to establish a generic fingerprint'. In M.-C. Campoy and M.J. Luzón (eds), *Spoken Corpora in Applied Linguistics*, pp. 235-258. Bern: Peter Lang.
- Farr, F. (2007b). 'Engaged listenership in spoken academic discourse: The case of student-tutor meetings'. In W. Teubert and R. Krishnamurthy (eds), *Corpus Linguistics: Critical Concepts in Linguistics*, pp. 67-85. London: Routledge.
- Farr, F. (2011). *The Discourse of Teaching Practice Feedback: A Corpus-Based Investigation of Spoken and Written Modes*. London: Routledge.
- Farr, F., Murphy, B., and O'Keeffe, A. (2004). 'The Limerick corpus of Irish English: Design, description and application', *Teanga* 21, 5-29.
- Farr, F. and Riordan, E. (forthcoming). 'Third level student participation in reflective tasks: An investigation of academic corpora', *Classroom Discourse*.

- Ferraro, J. M. (2000). 'Reflective practice and professional development', *ERIC Clearing House on Teaching and Teacher Education*, <<http://searcheric.org/digests/ed449120.html>> accessed 03 June 2008.
- Gomez, L. M., Sherin, M. G., Griesdorn, J. and Finn, L. (2008). 'Creating social relationships: The role of technology in preservice teacher preparation', *Journal of Teacher Education*, 59 (2), 117-131.
- Han, S. and Hill, J. R. (2006). 'Building understanding in asynchronous discussions: Examining types of online discourse', *Journal of Asynchronous Learning Networks*, 10 (4), 29-50.
- Hanson-Smith, E. (2006). 'Communities of practice for pre- and in-service teacher education'. In P. Hubbard and M. Levy (eds), *Teacher Education in CALL*, pp. 301-315. Amsterdam: John Benjamins.
- Hawkes, M. and Romiszowski, A. (2001). 'Examining the reflective outcomes of asynchronous computer-mediated communication on inservice teacher development', *Technology and Teacher Education*, 9 (2), 285-308.
- Higdon, J. and Topaz, C. (2009). 'Blogs and wikis as instructional tools: A social software adaptation of just-in-time teaching', *College Teaching*, 57 (2), 105-110.
- Jay, J. K. and Johnson, K. L. (2002). 'Capturing complexity: A typology of reflective practice for teacher education', *Teaching and Teacher Education*, 18, 73-85.
- Johnstone, B. (2009). 'Stance, style, and the linguistic individual'. In A. Jaffe (Ed), *Stance: Sociolinguistic Perspectives*, pp. 29-52. Oxford: Oxford University Press.
- Jorgensen, D. L. (1989). *Participant Observation. A Methodology for Human Studies*. London: Sage Publications.
- Kamhi-Stein, L. D. (2000). 'Looking to the future of TESOL teacher education: Web-based bulletin board discussions in a methods course', *TESOL Quarterly*, 34 (3), 423-455.
- Kanuka, H. and Anderson, T. (1998). 'Online social interchange, discord, and knowledge construction', *Journal of Distance Education*, 13 (1) <<http://cade.athabasca.ca/vol13.1/kanuka.html>> accessed 25 November 2006.
- Kostina, M. (2011). 'Three surprising ways that students view distance learning: Distance education hot topics', *Effective Online Teaching and Training* <<http://effectiveonlineteaching.org/2011/09/07/3-surprising-ways-that-students-view-distance-learning/>> accessed 12 December 2011.
- Krashen, S. (1985). *The Input Hypothesis: Issues and Implications*. London: Longman.
- Kunz, P., Dewstow, R., and Moodie, P. (2003). 'A generic tool to set up metacognitive journals and their serendipitous use', *The 20th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE)*, Adelaide, Australia, ASCILITE.
- Lafford, P. A. and Lafford, B. A. (2005). 'CMC technologies for teaching foreign languages: What's on the horizon?', *CALICO Journal*, 22 (3), 679-709.
- Lave, J. and Wenger, E. (1991). *Situated Learning. Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Lloyd, M. and Bahr, N. (2010). 'Thinking critically about critical thinking in higher education', *International Journal for the Scholarship of Teaching and Learning*, 4 (2), 1-16.
- Lucas, P. and Fleming, J. (2011). 'Critical reflection: Journals versus blogs', *New Zealand Association for Co-operative Education Conference*, Eastern Institute of Technology (EIT). Napier, Hawkes Bay, New Zealand: EIT, 29-33. <http://www.nzace.ac.nz/conferences/papers/Proceedings_2011.pdf> accessed 21 September 2011.

- Margalef García, L. and Roblin, N. P. (2008). 'Innovation, research and professional development in higher education: Learning from our own experience', *Teaching and Teacher Education*, 24, 104-116.
- McCarthy, M. (2001). 'Discourse'. In R. Carter and D. Nunan (eds), *The Cambridge Guide to Teaching English to Speakers of Other Languages*, pp. 48-55. Cambridge: Cambridge University Press.
- McLoughlin, C., Brady, J., Lee, M. J. W. and Russel, R. (2007). 'Peer-to-peer: An e-mentoring approach to developing community, mutual engagement and professional identity for pre-service teachers', Paper presented at the *Australian Association for Research in Education (AARE) Conference*, Fremantle, Western Australia, <www.aare.edu.au/07pap/mcl07393.pdf> accessed 25 November 2009.
- Mena-Marcos, J. J., Sánchez, E., and Tillema, H. (2008). 'Teachers reflecting on their work: Articulating what is said about what is done', *Teachers and Teaching. Theory and Practice*, 14 (2), 95-114.
- Montero, B., Watts, F., and García-Carbonell, A. (2007). 'Discussion forum interactions: Text and context', *System*, 35 (4), 566-582.
- Morrison, K. (1996). 'Developing reflective practice in higher degree students through a learning journal', *Studies in Higher Education*, 21 (3), 317-332.
- Murray, L. and Hourigan, T. (2006). 'Using micropublishing to facilitate writing in the foreign language'. In L. Ducate and N. Arnold (eds), *Calling on CALL: From Theory and Research to New Directions in Foreign Language Teaching*, pp. 149-179. San Marcos: CALICO.
- Murray, L. and Hourigan, T. (2008). 'Blogs for specific purposes: Expressivist or socio-cognitivist approach?', *ReCALL Journal*, 20 (1), 82-97.
- Partington, A. (2003). *The Linguistics of Political Argument*. London: Routledge.
- Preece, J. and Moloney-Krichmar, D. (2003). 'Online communities: Focusing on sociability and usability'. In J. Jacko and A. Sears (eds), *Handbook of Human-Computer Interaction*, pp. 596-620. Mahwah: Lawrence Erlbaum.
- Pryor, C. R. and Bitter, G. G. (2008). 'Using multimedia to teach inservice teachers: Impacts on learning, application, and retention', *Computers in Human Behavior*, 24, 2668-2681.
- Quinn-Patton, M. (2002). *Qualitative Evaluation and Research Methods*. London: Sage Publications.
- Richards, J. C., Sylvester, T., and Farrell, C. (2005). *Professional Development for Language Teachers: Strategies for Teacher Learning*. Cambridge: Cambridge University Press.
- Riordan, E. (2011). 'Assessing the integration and quality of online tools in language teacher education: The case of blogs, chat and discussion forums'. In T. Hourigan, L. Murray and E. Riordan (eds), *Quality Issues in ICT Integration: Third Level Disciplines and Learning Contexts*, pp. 94-119. UK: Cambridge Scholars Publishing.
- Schön, D. A. (1991). *The Reflective Practitioner. How Professionals Think in Action*. Aldershot: Ashgate.
- Scott, M. (2008). *Wordsmith Tools Version 5.0*. Liverpool: Lexical Analysis Software.
- Silverman, D. (2005). *Doing Qualitative Research*. London: Sage Publications.
- Stevens, V. (2003). 'Teacher professional development in online communities of practice: How does this impact on language learning?', Paper presented at the *Computer Assisted Language Learning Symposium*, Cairo, Egypt, <http://www.vancestevens.com/papers/egypt/tpd_online.htm> accessed 14 July 2008.
- van Teijlingen, E.R. and Hundley, V. (2001). 'The importance of pilot studies', *Social Research Update*, Department of Sociology, University of Surrey (Winter). <<http://sru.soc.surrey.ac.uk/SRU35.html>> accessed 20 February 2012.

- Wenger, E. (1998). *Communities of Practice. Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Wenger, E., White, N., Smith, J. D., and Rowe, K. (2005). 'Technology for communities', *CEFRIO*, <http://technologyforcommunities.com/CEFRIO_Book_Chapter_v_5.2.pdf> accessed 28 April 2008.
- Wikipedia (2011). 'Blog', *Wikipedia*, <<http://en.wikipedia.org/wiki/Blog>> accessed 10 January 2011.
- Yang, S. H. (2009). 'Using blogs to enhance critical reflection and community of practice', *Educational Technology & Society*, 12 (2), 11-21.