

# #PD: Examining THE Intersection OF Twitter AND Professional Learning

CARLY BIDDOLPH AND JEN SCOTT CURWOOD

---

## INTRODUCTION

Learning is a life-long process—it is essential for understanding and responding to the ever-changing world (Hammerness et al. 2005). It is particularly important for teachers, who are not only expected to instil the value of life-long learning in their students, but who are also faced with the challenges of developing their pedagogy in response to the rapidly changing social, cultural, and economic environment in which they live and work (Duncan-Howell 2010). For this reason, it is essential that teachers update their skills and knowledge through professional learning and development (Organisation for Economic Co-operation and Development 2009). For the purpose of this chapter, we draw a distinction between *professional development*, which understands learning as a progression through stages and a series of learning opportunities designed and administered by an “outside-the-school” expert, and *professional learning*, as an active, self-directed, iterative, and ongoing process based on a learner’s needs (Easton 2008).

Professional development is perceived as a high priority in schools, and a substantial financial investment is made each year in school inservice development and external conferences (Australian Institute for Teaching and School Leadership 2012; The New Teacher Project 2015). It is considered particularly important within Australia, and the recent implementation of the *Great Teaching, Inspired Learning Initiative* (Board of Studies Teaching and Educational Standards NSW 2013) has placed increased pressure on schools to enhance teacher

quality. However, despite this investment, compulsory school-funded professional development has long been described as “boring” (Wilson and Berne 1999: 176), “ineffective” (Walshe and Hirsch 1998: 11), and “irrelevant” (Lieberman and Mace 2009: 77).

Scholars and teachers alike have criticised traditional approaches to professional development for being decontextualised, didactic, and failing to provide teachers with opportunities to interact and collaborate with their colleagues or actively participate in the construction of knowledge (Walshe and Hirsch 1998). The prevalence of teachers seeking their own professional learning, separate from their school and not required as part of accreditation, suggests that there is a need to re-think the way professional development is approached in schools, so that it is more relevant to the individual needs and interests of teachers (Forte, Humphreys and Park 2012). The social media platform Twitter has given rise to new ways of engaging in professional learning and has become increasingly popular among teachers around the world (Alderton, Brunsell and Bariexca 2011; Forte, Humphreys and Park 2012; Grosbeck and Holotescu 2011).

While there has been a growing body of scholarship on the participation of teachers in online communities (Duncan-Howell 2010; Forte, Humphreys and Park 2012; Mills and Chandra 2011), there is limited research into how teachers learn within these spaces. This is particularly the case with social media like Twitter. Consequently, this presents opportunities for further research into how content area teachers use Twitter for professional learning. In response to this gap, we drew on multiple data sources, including a survey, interviews, and tweets, to explore the intersection of Twitter, English teaching, and professional learning. Specifically, we asked: How and why are English teachers using Twitter for professional learning? In what ways does participating in professional learning through Twitter influence teachers’ professional practices?

## THEORETICAL FRAMEWORK

Theoretical and empirical studies in the field of education have highlighted the situated and social nature of learning (Brown, Collins and Duguid 1989; Greeno 1997; Vygotsky 1978; Wenger 1998). This has challenged previous theories that conceptualised cognition as an individual and internal process of knowledge acquisition (Greeno 1998). For many people, learning is synonymous with schools and universities, conjuring up images of classrooms and lecture halls, yet sociocultural and situated perspectives emphasize that learning is an integral part of everyday life and influenced by an individual’s social and cultural context (Wenger 1998). For this reason, it is important that learning occurs through authentic activities within real-world contexts (Lave and Wenger 1991). For instance, teachers may find it difficult

to sustain engagement when reading an academic article on pedagogical approaches, yet they will readily engage in discussion about the strategies they use in the classroom because it is personally meaningful and situated in an authentic setting.

This theoretical framework has influenced the way many educators support the learning of their students. However, despite the shift away from passive, teacher-centred approaches to student learning toward more interest-driven, collaborative and interactive forms, these theories are often not applied to the education of teachers themselves (Putnam and Borko 2000). In recent years, scholars have drawn attention to the importance of applying a sociocultural approach to teacher professional development. For instance, Wenger (1998: 4) described learning as a process of “social participation” within various “communities of practice.” These same kinds of communities are evident in spaces of teacher professional learning, as teachers engage in authentic dialogue to develop their knowledge and practice (Curwood 2013; Desimone 2009).

Putnam and Borko (2000) argue that professional learning is most effective when it is situated in a specific context, social in nature, and distributed across people, resources, and tools. This perspective recognises that professional learning occurs in multiple contexts that include formal conferences and meetings, brief conversations with colleagues, and interactions in online spaces. Borko (2004: 4) suggested that in order to understand teacher learning, “we must study it within these multiple contexts” and acknowledge both the individual teachers and the social environments in which learning takes place.

Our study examined Twitter as a context of professional learning. Taking a sociocultural and situated approach was particularly relevant for this study due to the interactive, participatory, and social nature of Twitter (Cho, Ro and Littenberg-Tobias 2013; Fuchs 2014). Moreover, as social media sites are a part of everyday life for many teachers, Twitter situates professional learning in an authentic context (Forte, Humphreys and Park 2012).

## LITERATURE REVIEW

Much of the scholarship related to the professional learning of teachers takes a sociocultural and situated perspective by considering the way an individual’s context influences what, how, and why they learn (Lankshear and Knobel 2007). Here, we examine this scholarship to place our study within the wider context of the academic literature and identify critical gaps in this knowledge base. This literature review firstly investigates research on effective professional development and the move towards more collaborative and participatory models. It then examines teacher professional learning in online communities. Finally, it considers the ways that Twitter can be used for professional learning.

## Professional Learning

A substantial body of literature suggests that effective professional learning has five core features: a focus on content, opportunities for active learning, coherence with previous professional experiences, involvement with colleagues from the same subject area, and significant contact hours (Borko 2004; Curwood 2011; Darling-Hammond 1997; Desimone 2009; Wilson and Berne 1999). Despite the importance of interaction, collaboration, and active participation for effective professional learning, many scholars have drawn attention to the prevalence of traditional models of professional development in schools (Butler et al. 2004; Curwood 2014a; Duncan-Howell 2010; Wilson and Berne 1999).

Recent studies have argued that traditional models, such as in-school workshops, are often decontextualized, of short duration, and typically are run by outside experts who spend a relatively brief amount of time interacting with teachers and have little knowledge of the school (Avalos 2011; Hur and Brush 2009; Little 2012). Darling-Hammond and Sykes (1999), writing over fifteen years ago, argued that this model of professional development is problematic because it does not provide teachers with the opportunity to engage in dialogue, collaboration, or curricular innovation, all of which are critical components of effective professional learning. More recently, Butler and colleagues (2004) conducted a two-year case study across four Canadian schools and found that, at the time, in-school workshops still favoured a top-down, one-size-fits-all approach to learning. Likewise, Duncan-Howell (2010) argued that these compulsory, school-based workshops often have limited impacts on pedagogy.

Prior studies highlight that there is often a disjunction between sociocultural theory, which advocates for conceptualising learning as social and contextual, and the professional development offered in schools (Cochran-Smith and Zeichner 2010; Curwood 2014b; Roth and Lee 2007; Webster-Wright 2009). They emphasise the importance of re-thinking the way professional development is approached, so that it is more relevant and tailored to the needs of individual teachers and local schools (Borko 2004). While these studies provide valuable insight into compulsory, school-based professional development, interest-driven, technology-mediated, and self-directed forms of professional learning are generally under-researched. This presents an opportunity for further research into contemporary forms of professional learning that draw on sociocultural and situated theories of learning.

## Learning in Online Communities

The proliferation of digital tools in the 21st century has affected the way information is produced and the way people engage with knowledge (Fuchs 2014; Jewitt 2008). New technologies, such as online forums and social media, have created new spaces

for professional learning (Grosbeck and Holotescu 2011). Professional learning in these spaces may be formal, such as master's degrees or accredited courses, or informal, such as reading or commenting on another teacher's blog (Desimone 2009).

In an online survey, Duncan-Howell (2010) found that teachers generally regarded participation in online communities as a meaningful and relevant form of professional learning. The survey provided insight into the positive attitudes of participants towards online learning communities, as these spaces encourage conversations between like-minded teachers from different schools. Alderton, Brunsell, and Bariexca (2011) suggested that the support teachers receive when engaging in dialogue online may give them the confidence to try new and innovative strategies in their own classrooms. Skulstad (2005) examined the interactions of pre-service teachers in an asynchronous forum. As part of a compulsory task, the pre-service teachers posted their work online to be critiqued by their peers. The study found that by giving advice and praise, the participants utilised the online forum to improve their writing by learning from and with each other. Similarly, Mills and Chandra (2011) researched pre-service teachers in an Australian university and found that using the social networking platform Edmodo to collaborate on assignments established a supportive community of learners within this particular online space. Hur and Brush (2009) conducted a case study of eight K-12 teachers in three online forums, which were created specifically to support and encourage collegiality. Through interviews and an analysis of archived posts to the forums, they discovered that teachers were motivated to participate in these online communities because they provided a space to explore ideas, share emotions, and establish a sense of camaraderie (Hur and Brush 2009).

This body of research suggests that online communities provide a space for teachers to share resources and explore ideas (Hur and Brush 2009), overcome isolation by providing support and guidance for each other (Alderton, Brunsell and Bariexca 2011; Mills and Chandra 2011; Skulstad 2005), and can be a meaningful and relevant form of professional learning (Duncan-Howell 2010). While these studies have described some of the reasons teachers participate in online communities, there has been limited investigation into how teachers use these spaces for professional learning. Much of the research is also concerned with forums that were specifically created for professional discussions rather than social media, like Twitter. For this reason, the implications of online learning communities for teachers have yet to be extensively explored, which presents a critical gap in the literature.

## Twitter and Professional Learning

Social media sites have become popular among educators as a complement to more traditional forms of professional development (Lloyd and Duncan-Howell 2010). Social media refers to online applications that include, but are not limited

to, Facebook, Twitter, Instagram, and Tumblr (Grimes and Fields 2012). Scholars have suggested that Twitter, in particular, has the potential to foster opportunities for authentic professional learning (Cho, Ro and Littenberg-Tobias 2013; DeCosta, Clifton and Roen 2010; Khan 2012). O'Connell (2008: 23) described Twitter as a "powerful, ongoing learning community" that encourages collegial interaction, reflection, and sharing. Cho, Ro, and Littenberg-Tobias (2013) and DeCosta, Clifton, and Roen (2010) suggested that the interactive nature of Twitter allows teachers to engage in personalized and distributed professional learning with colleagues from around the world, both asynchronously and in real time.

While the impacts of Twitter on professional learning have been relatively unexplored, there have been some small-scale empirical studies of Twitter as a tool for developing teachers' practice. Forte, Humphreys, and Park (2012) conducted a study of how teachers participate in Twitter chats as a form of professional learning. Twitter chats are public conversations that take place at a designated time by using a common hashtag. Hashtags categorise messages about specific topics and are searchable within Twitter (Cho, Ro and Littenberg-Tobias 2013). A study by Forte and colleagues (2012) triangulated findings from a survey, interviews, and the content analysis of 2,000 tweets with the American-focused hashtag #edchat and found that many teachers regarded Twitter as a valuable platform for discussing classroom practices and sharing resources.

Alderton, Brunsell, and Bariexca (2011) examined the way a group of American teachers used Twitter to communicate and collaborate with each other. An analysis of their tweets and the data collected from a survey revealed that 62 per cent of the group's tweets provided evidence of dialogue between teachers, and nine out of ten participants provided examples of how they used Twitter as a tool for collaboration. At the same time, the study found that the 140-character limit per tweet restricted communication, with teachers explaining that they moved to other platforms such as Facebook and email for more in-depth discussions. Khan (2012) agreed that while Twitter chats encouraged professional dialogue, the constantly updating stream of information could be overwhelming, making it difficult for some teachers to engage in discussions in depth.

Although there have been some studies into why teachers use Twitter for professional learning, these were primarily with American teachers and focused on Twitter chats across multiple subject areas. Consequently, studies looking at how and why content area teachers use Twitter for professional learning in international contexts would be a beneficial addition to the current knowledge base, as research has shown that professional learning is most effective when it is situated and discipline specific (Darling-Hammond 1997; Desimone 2009).

## METHODOLOGY

### Context

Our study draws on data from the popular social media platform Twitter.com. Launched in 2006, Twitter allows users to read and write 140-character messages, called tweets, to communicate both in real time and asynchronously. Tweets can contain text, images, and links to external pages, articles, and websites (Greenhow and Gleason 2012). In addition, tweets can be linked to or shared on other social networking sites, as well as through email. Figure 10.1 provides a screenshot of the standard website interface of Twitter. Running across the top is a navigation bar that includes icons for Home, Notifications, Messages, and a search bar that can be used to search keywords, usernames, and hashtags.

The top left corner of the screen shows the profile information of the user, including their name, profile picture, number of tweets, number of followers, and the number of people they are following. Followers are people who subscribe to a user's tweets. In other words, a user chooses to see a person's tweets by "following" them. These tweets appear as a constantly updating list down the centre of the interface and can be replied to, favorited or retweeted (Cho, Ro and Littenberg-Tobias 2013). A "favorite" is used to like or praise another user's tweet and can also save the tweet for access at a later time. A retweet refers to the reposting of another user's tweet to demonstrate agreement with it or provide validation (Khan 2012). Users can write and post tweets by clicking on the button in the top right corner.



Figure 10.1: Twitter Interface.

## Participants

The participants were recruited for our study by posting a link to a survey we had designed, using the English teaching hashtags #engchat and #ozengchat, as well as via Facebook, where the link was posted to the English Teachers Association of New South Wales, National Council of Teachers of English, and Australian Association for the Teaching of English pages. Despite the global audience of Twitter and Facebook, the 64 survey respondents were primarily from an Australian context. Table 10.1 further illustrates the survey demographics.

Table 10.1: Survey demographics

Number of participants		
Country	Australia	49
	USA	12
	New Zealand	1
	Singapore	1
	Ireland	1
Age	20–24	5
	25–30	8
	31–35	5
	36–40	14
	41–45	10
	46–50	7
	51–55	8
	56–60	6
	61–65	1
Years Teaching Experience	Pre-service	3
	1–5	8
	6–10	15
	11–15	16
	16–20	7
	21–25	7
	26–30	2
31–35	6	



Survey respondents were given the opportunity to express interest in participating in an interview. These eight self-nominated teachers were selected as representative of #ozengchat, as they were varied in terms of their years of teaching experience and their activity on Twitter. All participants worked in secondary schools with students in Grades 7 to 12, with the exception of Leah, who worked as a university lecturer. All were Australian and based in New South Wales, with the exception of Hannah, who taught in South Australia, and Leah, who taught in Queensland. Table 10.2 summarises the relevant demographic information and shows the participants' varied degrees of Twitter use, including the number of tweets they have posted, number of followers, and number of people they were following at the time of data collection.

Table 10.2: Interview participants

Name*	Role	Age	Years of teaching experience	Years using Twitter	Number of tweets posted	Number of followers	Number following
Jackson	English teacher	25–30	4	6	37K	1,495	1,259
Whitney	English and ESL teacher	36–40	16	3	21K	1,885	1,461
Kat	English teacher and Head of Professional Learning	31–35	10	6	49.9K	4,428	1,316
Hannah	Head of Library, and an English teacher prior to this study	36–40	13	3	8,585	413	213
Elise	Head of English	36–40	11	3	2,726	1,036	1,722
Jill	Head of English	51–55	30	5	12.8K	1,627	1,132
Ryan	Head of English	31–35	10	6	570	104	444
Leah	University lecturer of English Curriculum	31–35	10	6	10.7K	3,044	2,633

\* All names are pseudonyms

## Data Collection

To answer our research questions concerning English teachers and their use of Twitter for professional learning, we collected multiple data sources. This included: (a) an online survey of 64 teachers about their professional learning and Twitter use, which included Likert scale and open-ended questions; (b) hour-long semi-structured interviews with eight focal participants that were conducted via Skype; and (c) an analysis of the content of 530 tweets that included the #ozengchat hashtag. These tweets were taken from four archives that were identified by the creator of #ozengchat as representative of the hashtag. Tweets were collected from #ozengchat because all of the interviewees had used it and because of its Australian focus.

Hashtags are created by including the # symbol before a word or phrase. They are searchable within Twitter, and, as such, can be used to broaden the scope of a tweet by reaching a larger audience that extends beyond one’s “followers” and can serve to highlight a particular topic, and also turn a topic into a “trend” (a topic that is popular at a particular time). Some popular education-themed hashtags include #engchat, #edchat, and #aussieed. A screenshot of the #ozengchat hashtag is shown in Figure 10.2. This particular hashtag was created in 2012 for Australian English teachers to interact, share resources, and reflect on their practice. The chat is moderated by several members of the community, which assists in maintaining #ozengchat as a space for professional learning that is relevant to English teaching. While the hashtag can be used and accessed publicly at any time, a live chat occurs fortnightly on Tuesday nights.

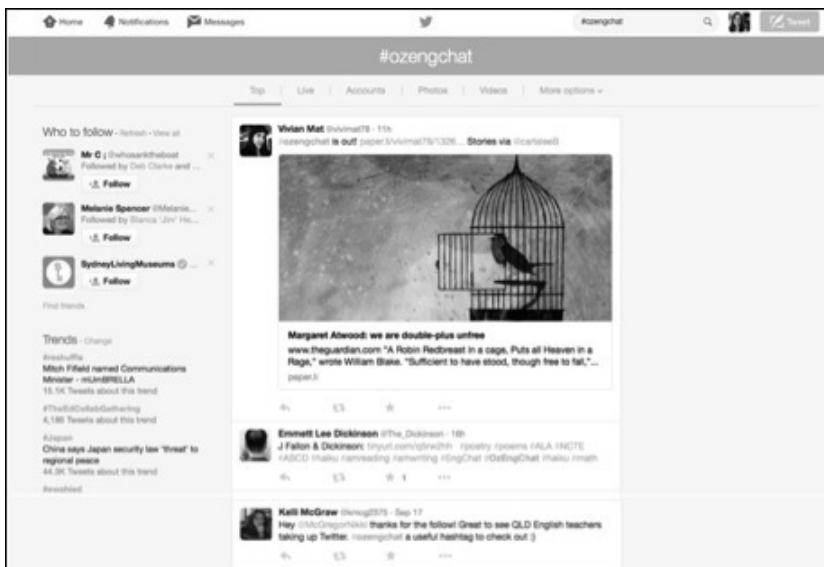


Figure 10.2: #ozengchat.

## Data Analysis

The interviews and tweets were analysed concurrently through a process of thematic analysis. This involved closely reading the data and separating it into salient fragments or themes, which were then used to infer meaning (Saldaña 2013). With the surveys, multiple-choice and Likert scale data were analysed quantitatively, and frequently used terms were identified in the open-ended questions.

The interviews and tweets were analysed thematically using first-cycle and second-cycle coding methods (Miles, Huberman and Saldaña 2014). During the first cycle, we analysed the interview data line by line and labelled meaningful fragments with *in vivo* codes, which use the participants' own words as codes. This showcased the unique voices of the interviewees and situated the data within an authentic context. "On your own" is an example of an *in vivo* code we used to label data that described a perceived lack of support and instances of self-initiated learning. Each tweet was attributed a process code such as "sharing resources" to reflect *how* Twitter was used by educators by describing observable action (Saldaña 2013). Only one code was applied to each tweet, which are described in Table 10.3 below.

During the second cycle of coding, we identified patterns across data sources and reduced the number of codes by removing those that occurred less frequently, as well as those that shared the same meaning with another code. *In vivo* codes were changed to descriptive codes to summarise and clarify their meanings. For example, the *in vivo* code "on your own" became the descriptive code "self-directed learning." Codes were then cross-referenced with the quantitative data from the survey to highlight salient themes and determine key findings (Denzin and Lincoln 2000). By triangulating the data from the survey, interviews, and tweets, the study provided a holistic understanding of why and how eight teachers used Twitter for professional learning.

## FINDINGS AND DISCUSSION

Our study investigated how and why English teachers use Twitter for professional learning, and it also examined Twitter's influence on their professional practice. The findings are organised into four sections. We first explore the reasons for the popularity of self-directed and voluntary forms of professional learning. Second, we discuss Twitter as a global professional learning network. Finally, we describe participants' changing roles and varied levels of participation within the Twitter community before considering the implications for classroom practice.

## Trending: The increasing popularity of self-directed professional learning

We get told so much... sometimes it's nice for people to be able to pick. (Kat)

Agency was a recurring theme throughout our study, with participants emphasising the importance of having choice and control over what they learn and how they learn it. When asked in the survey to identify a valuable experience of professional learning, a significant number of teachers cited voluntary learning opportunities such as TeachMeets, Google Hangouts, and Twitter chats. Examples of these include the Literacy Research Association's Research to Practice Show via Google Hangouts, Sydney-based TeachMeets, and #ozengchat on Twitter. These professional learning opportunities provide teachers with a sense of agency over their own learning because they have the chance to select activities that are relevant to their classroom practice (Alderton, Brunsell and Bariexca 2011; Pluss 2008). With Twitter, teachers can join a Twitter chat that addresses a topic in which they are personally interested. For example, #pbl has a focus on project-based learning, while #ozengchat emphasises English curriculum and pedagogy. Interestingly, data from the survey suggested that school-based professional development often does not differentiate between teachers, with only 4 out of 64 respondents strongly agreeing that the professional development offered by their school was tailored to their individual needs and interests.

The perception among interview participants was that school-based professional development was often generic, repetitive, and provided teachers with limited agency over their own learning. Kat described her frustration with the decontextualised and pre-packaged approach to professional development in her school: "We don't really get a choice... it's just this thing that someone else implemented in another school and then it's been brought over to our school." Leah elaborated on the generic nature of school-based professional learning: "You would be doing something [in a professional development workshop]...really broadly, not specifically for that in the English classroom."

Issues of accessibility also influenced teachers' use of Twitter. While most survey respondents found external conferences to be a valuable form of professional learning, many of the interview participants expressed that due to cost and location, these conferences are often inaccessible. Whitney explained, "I enjoy going to conferences, but... my time to go to them is limited because of teaching commitments and because there is not enough funding." Jill described her difficulty in accessing "good professional development" in a rural setting, as "we don't have the money for travel and accommodation." Twitter, on the other hand, offers free, just-in-time professional learning that is not restricted by geography or money, as it can be accessed from any device with an internet connection (Cho, Ro and Littenberg-Tobias 2013). This is especially important for connecting teachers in schools with limited funds, as well as schools in rural or remote Australia.

Voluntary and self-directed forms of professional learning are becoming increasingly popular among teachers because they provide opportunities for interaction, collaboration, and active participation, all of which are core features of effective professional learning (Borko 2004; Darling-Hammond 1997; Desimone 2009). Hannah explained that she finds it “really useful to be able to talk to people... about areas that I’m passionate about,” and Jackson explained that he is motivated to participate in Twitter chats because of the “ongoing dialogue” with other teachers. This is in contrast to Kat’s experience of school-based professional development, where teachers had no choice or active involvement in their learning but instead “had this woman talking at us for two and a half hours. We were sitting at circular tables, which I thought was amusing, because at no point were we invited to talk to each other or to do an activity.”

This passive style of knowledge transmission is problematic considering the substantial research base that emphasises the importance of learning through social interaction (Gee 2004; Lave and Wenger 1991; Moll 1992; Street 2014; Vygotsky 1978; Wenger 1998). The attitude among several of the interview participants was that due to the lack of agency and the often repetitive, decontextualized nature of school-sponsored learning, teachers have a responsibility for pursuing their own professional learning. It is for this reason in particular, it seems, that self-directed and digitally mediated platforms such as Twitter are becoming increasingly popular among teachers. As Jill explained, “If you weren’t active in terms of finding your own [professional learning], then you wouldn’t learn anything new.”

### Follow me: Finding support within a global professional learning network

Twitter is the staffroom that you’d really like to have. (Jackson)

Twitter is unique because it enables teachers to freely access professional learning and to communicate at any time with colleagues from around the world (Cho, Ro and Littenberg-Tobias 2013). This means that professional learning networks are not limited to school staffrooms, as teachers are able to seek support and share their experiences with a global audience (Pluss 2008). Jackson explained that by expanding his professional learning network through Twitter, he can interact with “great educators.... that are willing to share ideas and resources... while in schools people aren’t that forth coming.” Elise further described the benefits of Twitter’s global reach: “Once you say, ‘Can I have help with this or does anyone have any ideas for this?’, you get retweeted a couple of times, and your audience ends up being unlimited.” At the same time, this unlimited access to information can be overwhelming. As Kat explained, “Sometimes there’s so many people in there, you can’t open all those links and you can’t favourite everything.” Leah conveyed

her frustration over resource sharing on Twitter that can become repetitive, as “everyone will share, share, share, and then the same question comes up again in six months’ time.”

Through Twitter, teachers are engaging in reciprocal learning as they share resources and ideas within a global professional learning network. Whitney explained that Twitter gives her access to innovators and experts in the field, and she also has the opportunity to see beyond her classroom “to other things that are happening in Australia and in the world.” Ryan further described the advantage of Twitter for networking and collaborating with people with different perspectives to his own: “I interact with the English teachers at my work all the time and we often think pretty similarly... if everyone in a school all thinks the same way... you can shut down opportunities to grow and improve.” In this way, knowledge and information are distributed across the Twitter community, with each member bringing diverse perspectives, skills, and areas of expertise. This, in turn, enables teachers to learn from and with each other (Gomez et al. 2010; Putnam and Borko 2000).

The analysis of tweets from #ozengchat highlighted how teachers use Twitter for professional learning. During analysis, we categorised each contribution to the hashtag into one of the following codes: sharing resources, reflecting on experiences, describing practice, asking a question, offering ideas, responding to a question, and networking. These codes are explained in further detail in Table 10.3.

Table 10.3: Tweet Codes

Code	Description	No. times code occurred
SHARING RESOURCES	Links to external resources such as websites and articles that inform teaching practices or can be used in the classroom. Example: “OK, straight off the bat is the top two Shakespeare links I give to my students: nfs.sparknotes.com & shmoop.com/shakespeare/#ozengchat”	122
REFLECTING ON EXPERIENCES	Reflecting on personal experiences they have had as a teacher. This can include sharing successes and failures and reflecting on their teaching philosophy. Example: “Hurley is interesting for me personally. I feel it’s a bit dry for students. Lots of interesting idea of disc. through #ozengchat”	77

Code	Description	No. times code occurred
DESCRIBING PRACTICE	Tweets that describe strategies that have been implemented in the classroom. Example: “#ozengchat I did a Macbeth/GoT lesson re: regicide + kingslayer, doubletrust + red wedding, and Lady Macbeth + Cersei ...”	75
ASKING A QUESTION	These were in the form of open questions that were directed towards everyone, as well as direct questions that were specifically targeted towards individual users. Example: “#ozengchat I need some help Language, Learning and Literacy Does anyone have any information that’s not on the intranet?”	71
OFFERING IDEAS	Suggestions and inspiration for classroom practice. Example: “Engaging with poetry - get students to illustrate a selected poem #ozengchat”	70
RESPONDING TO QUESTION	Directly responding to or answering a question posed by another user. Example: “we do insults as well! And idioms that we use today from Shakespeare #ozengchat #greatminds”	51
NETWORKING	Networking includes making plans to collaborate with other users and personal conversations unrelated to professional practice. Example: “We should do some collaborative projects w my ESL classes then! :) #sokeen #ozengchat #authenticlearning”	47

We found that teachers most commonly contributed to the #ozengchat hashtag by sharing resources, reflecting on their experiences, and describing their classroom practice. This was consistent with the survey data, which indicated that teachers use Twitter predominantly for professional purposes. Notably, while the code “sharing resources” occurred most frequently, 57 out of 122 of these instances occurred outside of the designated time of #ozengchat. In fact, the overwhelming majority of tweets that occurred asynchronously were links to resources. This suggests that asynchronous participation on Twitter is more about sharing ideas and resources than about seeking advice or expecting a response. This idea was supported by data from the interviews. For example, Elise explained that the benefit of asynchronous communication is that “you can go back and look at

the conversations and add to it later.” However, Jackson expressed that this can be problematic, because without understanding the context of a tweet, “you can really misinterpret other people’s tone.” Jill agreed that it can be difficult to communicate your ideas clearly “without going over 140 characters... so sometimes it’s really nice to talk face-to-face.”

Of further interest was the acknowledgement and social validation of teachers’ ideas, which was apparent in both the interviews and the tweets. Several of the interview participants indicated the importance of having their learning and contributions acknowledged by other teachers, yet this was often absent within their schools. As Kat explained, “We don’t get report cards, and we don’t get test results that say we’ve done well.” We found evidence of teachers affirming the contributions of others within the #ozengchat tweets. These affirmations were either direct in the form of praising someone through a reply or indirect by a favourite or a retweet. From 530 tweets, we counted 228 favourites, 143 retweets, and 12 instances of direct praise. This means that on average, 72 per cent of the contributions to #ozengchat received some form of validation. This finding reinforces teachers’ perception of Twitter as a supportive and collegial network where their learning and contributions are socially recognised. As Kat elaborated, “Twitter was about establishing myself within a community of educators who value me.”

### From lurker to leader: Changing roles and the importance of participation

When you think of birds up in a tree going tweet, tweet, tweet, if they’re not actually tweeting, if they’re not actually saying little 140 things to each other quite quickly and continuously, nothing is twittering. (Leah)

A community of practice refers to a group of people with common interests and goals who learn from each other by sharing information, knowledge, and experiences (Lave and Wenger 1991). Studies related to adolescents’ contributions and interactions in affinity spaces and online forums, reflected the importance of participation within communities of practice (e.g., Ito et al. 2013; Margerison 2013). Our survey asked several questions related to the way teachers participate in professional learning through Twitter. Respondents were asked to identify how often they read, retweet, and post original tweets related to their professional practice. The results are illustrated in Figure 10.3.



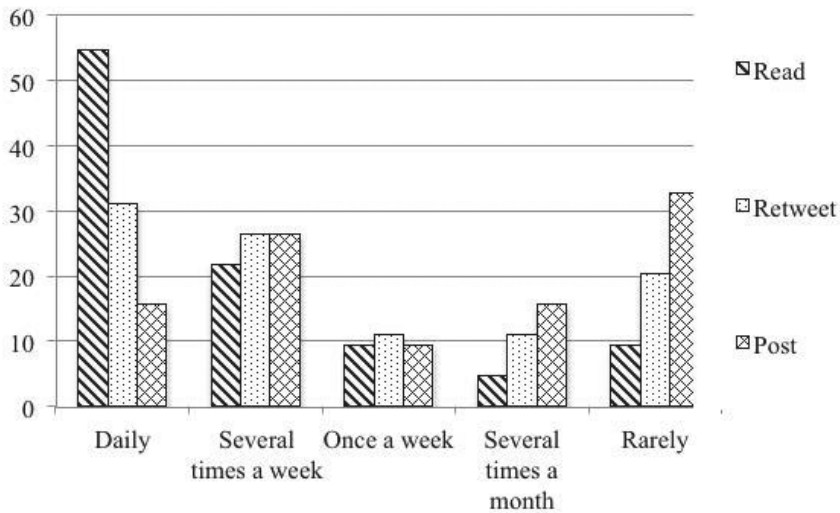


Figure 10.3: Frequency of participation.

While the majority of participants indicated that they read tweets on a daily basis, only 15.6 per cent reported that they post original tweets daily. We explored this idea further by asking interview participants how they use Twitter for professional learning. We found that participation takes multiple forms, including posting an original tweet, retweeting or favoriting another person's tweet, and reading what other people have contributed. With this in mind, the survey highlights that teachers are largely participating on Twitter by reading, which arguably is a valid and often under-valued form of participation (Wenger 1998).

Jackson considered the multiple possible types of participation as one of the advantages of Twitter over other forms of professional learning. This is because participation “doesn't necessarily mean you have to be present. It's the nature of Twitter that you can be an observer...you can just watch... you aren't forced to participate.” Hannah explained that she only participates directly when the topic is something she is passionate about or when she feels she can add something of value to the conversation. This quality of Twitter is something that Ryan, a self-described “lurker,” also finds advantageous. He elaborated, “I lurk a little bit sometimes and read through a few discussions that happen on #ozengchat, but I rarely contribute.”

The concept of lurking describes the process of being present in the Twitter community through observation rather than actively contributing to the conversation. This idea is consistent with Lave and Wenger's (1991) theory of legitimate peripheral participation, whereby participation includes both active involvement and observation. Moreover, legitimate peripheral participation holds that

newcomers to a community of practice need the opportunity to participate in low-risk ways. As individuals become more familiar and experienced within the community, they often move from the periphery to take on a more central and active role (Lave and Wenger 1991). Jill described her changing level of participation in this way. “In the first few months you just sit back and you take, you favourite and you follow the links. Then you become brave and start sharing what you know.” Similarly, Jackson began using Twitter as a pre-service teacher mostly to find resources and ideas that he could implement in the classroom. As he gained more experience as a teacher, his role and use of Twitter changed from seeking advice and resources to sharing resources and ideas of his own. He explained, “When I first started I was desperate for any ideas... But now that I’ve been teaching for a couple of years, I’m starting to feel like I can offer something.”

These changing degrees of participation also provide opportunities for teachers to establish themselves as leaders within the community. Both Whitney and Leah assumed leadership roles within the #ozengchat community. Whitney is the creator and moderator of the chat, while Leah also assists with moderation. Leah and Whitney described the responsibility of leading the chat as more challenging than simply participating in it; according to Whitney, the role of the moderator is to “keep the flow going.... Asking the questions and responding to what people are saying.” Interestingly, Whitney explained that despite her role, she does not consider herself “the provider of professional development.” Instead, she believed that as a moderator, she facilitates the conversation in which educators learn from and with each other.

On the other hand, Kat and Ryan explained that as they become more experienced in their careers, they are contributing less often to Twitter. While Kat acknowledged the importance of having more experienced teachers on Twitter “to help the new people,” she explained that she is not interested in having that role. Ryan believed that ultimately, the ideas and resources shared on Twitter are “superficial,” because while they provide inspiration, they need to be adapted for the unique context of his classroom and school. For this reason Ryan prefers to learn through self-selected workshops, conferences, and research, and he uses Twitter to complement and support this learning. These varied degrees of participation on Twitter are a reflection of the agency teachers have over their learning within this online space. This again suggests that Twitter is not a provider of professional development per se but, rather, is a valuable tool that can be used by teachers to support their professional practice and complement other forms of professional development.

## IMPLICATIONS FOR PROFESSIONAL PRACTICE

Our survey found that 81 per cent of respondents believed that participating in Twitter chats was a meaningful form of professional learning. The interviewees

elaborated on this belief by providing examples of how Twitter influenced their practice as English teachers. Two prominent influences emerged: Twitter as a source of inspiration and Twitter as a tool for learning.

The resources and ideas shared on Twitter seem to inspire teachers. As Jill stated, they influence “day-to-day activities, assessments, and the way technology is used to engage students in the classroom.” Elise explained that through Twitter she was provided with “links, programmes, and examples” that assisted her implementation of the flipped classroom strategy with her students. Jill stated that a “key part of her work with iPads” was inspired by an idea she found on Twitter, where students create movie trailers for books they are studying in class. She also explained that from a link on Twitter she learned about new feedback models, which influenced her implementation of a student reflection task. Similarly, Jackson described the “medals and missions” feedback strategy that was shared by a colleague on Twitter and how it “has totally changed” the way he approaches marking.

Twitter is also a valuable tool for supporting teachers’ and students’ learning. Hannah, who teaches in an all-girls’ school, described tweeting authors to engage students in the novels they were studying. “When I was reading Claire Zorn’s book to Grade 8, I was tweeting her the responses the girls were having, and she was tweeting back... I would then share that with the students.” Kat used Twitter in her classroom to provide an authentic audience for her students to share their work. She explained that this significantly changed her practice because it allowed her to “see that my students are composers, more than just responders.” She said, “Twitter has made me a better English teacher” because, rather than asking her students to write about texts that other people have created, she also encourages students to create their own. She further shared her plans, as head teacher of professional learning, to embed Twitter within her programmes as a way of encouraging her colleagues to share their learning with an “audience outside of the school.” Elise also used Twitter for this reason, as she believed that retweeting, favouriting, and sharing her experiences with a global audience influenced her practice as a teacher, because they allow “me to reflect on my ideas, values, what I teach, how I teach... and this is really important.”

Despite this rich evidence to suggest that Twitter influences the practice of English teachers in positive ways, many teachers are reluctant to embrace Twitter as a platform for professional learning. As Jackson put it, “They think it’s Justin Bieber talking about combing his hair... they have got no idea.” The attitude among the interview participants was that there is a need for a shift in the way Twitter is perceived by educators, so that instead of viewing it as a social media platform for celebrity gossip, it is seen as a valuable and authentic space for professional learning. As Jill emphasised, “I have learned more about my craft and my subject in the six years I’ve been on Twitter than I did in the 24 years of teaching before then.”

## CONCLUSION

Previous studies considered the potential of Twitter for professional learning (Alderton, Brunsell and Bariexca 2011; Cho, Ro and Littenberg-Tobias 2013; Forte, Humphreys and Park 2012; Grosseck and Holotescu 2011; Pluss 2008). Adding to the research, this study highlighted three key factors that influenced teachers' use of Twitter: *agency* in how, what, and why teachers engage in professional learning; *accessibility* in terms of funding and location; and *reciprocity* in how learning occurs and is socially validated. The findings indicate that Twitter is an effective form of professional learning because it is self-directed, and teachers can select Twitter chats that are relevant to their unique needs and interests, while school-sponsored professional development is often generic and decontextualised. Moreover, while professional development can be expensive and often requires teachers to travel, Twitter offers free professional learning that is accessible from any location and at any time. Scholars argue that teaching needs to move away from being a solitary activity and instead, emphasise the importance of reciprocal learning, dialogue, and collaboration (Kedzior and Fifield 2004). By sharing resources, reflecting on experiences, and engaging in dialogue with passionate and like-minded colleagues, learning through Twitter is social, distributed, and situated in an authentic context. In this way, Twitter fosters a supportive professional learning community, where teachers' ideas are acknowledged and valued. This was evident through the high frequency of favorites and retweets within #ozengchat.

Twitter also has a significant influence on pedagogy, with all teachers in the study providing examples of using Twitter as a source of inspiration, and as a tool for learning. However, the extent of Twitter's influence varied among study participants, with some becoming more active and assuming leadership roles and others becoming less engaged and seeking professional learning in other forms over time. This suggests that Twitter is most effective when complemented by other forms of professional learning and adapted to the social and cultural contexts of individual teachers and schools.

While this study provides valuable insight into how and why English teachers use Twitter for professional learning, there are several limitations. Due to the opportunistic sampling method of the survey, the participants were predominantly from Australia and primarily from New South Wales. For this reason, the findings are not representative of all English teachers using Twitter. Future studies can broaden the scope of the research to include teachers from more diverse contexts. The case study methodology bounded the research context within the #ozengchat hashtag. Future research could assess the transferability and repeatability of the findings by comparing a variety of educational hashtags through a multiple case study design (Merriam 2009). In addition, longitudinal or ethnographic studies that explore how content area teachers use Twitter over a substantial period

of their career would provide a more in-depth understanding of the long-term impacts Twitter has on their practice.

The findings clearly show that Twitter, as an online community of practice, embodies the characteristics of effective professional learning. This includes a focus on content, active participation, and an ongoing dialogue with teachers of the same subject area (Desimone 2009). Consequently, this study advocates for the acknowledgement of Twitter as a powerful complement to recognised and certified professional development. Furthermore, as agency and reciprocity were crucial factors that influenced teachers' use of Twitter, this study suggests that schools allow teachers to choose their professional development activities and incorporate the participatory, interactive, and reciprocal attributes of Twitter into the professional development programs they offer to teachers. In doing so, school-based professional development can become more relevant, engaging, and have a long-lasting influence on the practice of teachers. We know that our students are motivated when they have agency and when they have access to an interest-driven community; it is time we apply this knowledge to teacher professional development.

## REFERENCES

- Alderton, E., Brunsell, E. and Bariexca, D. (2011). The end of isolation. *The Journal of Online Learning and Teaching*. 7(3): 1–16.
- Australian Institute for Teaching and School Leadership (AITSL). (2012) Australian Teacher Performance and Development Framework. Available at: <http://www.aitsl.edu.au>. Downloaded 8 October, 2015.
- Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education*. 27(1): 10–20.
- Board of Studies Teaching and Educational Standards NSW. (2013) Great Teaching Inspired Learning. Available: <http://www.nswteachers.nsw.edu.au/great-teaching-inspired-learning> Downloaded 8 October, 2015.
- Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher*. 33(3): 3–15.
- Brown, J., Collins, A. and Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*. 18(1): 32–42.
- Butler, D., Lauscher, H., Jarvis-Selinger, S. and Beckingham, B. (2004). Collaboration and self-regulation in teachers' professional development. *Teaching and Teacher Education*. 20(1): 435–455.
- Cho, V., Ro, J. and Littenberg-Tobias, J. (2013). What Twitter will and will not do: Theorising about teachers' online professional communities. *LEARNing Landscapes*. 6(2): 45–62.
- Cochran-Smith, M. and Zeichner, K. (eds) (2010). *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education*. Washington, DC: Routledge.
- Curwood, J. (2011). Teachers as learners: What makes technology-focused professional development effective? *English in Australia*. 46(3): 68–75.
- Curwood, J. (2013). Applying the design framework to technology professional development. *Journal of Digital Learning in Teacher Education*. 29(3): 90–97.

- Curwood, J. (2014a). Between continuity and change: Identities and narratives within teacher professional development. *Teaching Education*. 25(2): 156–183.
- Curwood, J. (2014b). English teachers' cultural models about technology: A microethnographic perspective on professional development. *Journal of Literacy Research*. 46(1): 9–38.
- Darling-Hammond, L. (1997). *Doing What Matters: Investing in Quality Teaching*. New York, NY: National Commission on Teaching and America's Future.
- Darling-Hammond, L. and Sykes, G. (1999). *Teaching as the Learning Profession: Handbook of Policy and Practice*. San Francisco, CA: Jossey-Bass.
- DeCosta, M., Clifton, J. and Roen, D. (2010). Collaboration and social interaction in English classrooms. *English Journal*. 99(5): 14–21.
- Denzin, N. and Lincoln, Y. (2000). *Handbook of Qualitative Research*. Beverly Hills, CA: Sage.
- Desimone, L. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*. 38(3): 181–199.
- Duncan-Howell, J. (2010). Teachers making connections: Online communities as a source of professional learning. *British Journal of Educational Technology*. 41(2): 324–340.
- Easton, L. (2008). From professional development to professional learning. *Phi Delta Kappan*. 89(10): 755–759.
- Forte, A., Humphreys, M. and Park, T. (2012). Grassroots professional development: How teachers use Twitter. *Proceedings of the International Conference on Weblogs and Social Media*. Presented at the International Conference on Weblogs and Social Media, Dublin, Ireland: Association for the Advancement of Artificial Intelligence, 106–113.
- Fuchs, C. (2014). *Social Media: A Critical Introduction*. London: SAGE.
- Gee, J. (2004). *Situated Language and Learning: A Critique of Traditional Schooling*. New York, NY: Routledge.
- Gomez, M., Schieble, M., Curwood, J. and Hassett, D. (2010). Technology, learning, and instruction: Distributed cognition in the secondary English classroom. *Literacy*. 44(1): 20–27.
- Greenhow, C. and Gleason, B. (2012). Twitteracy: Tweeting as a new literacy practice. *The Educational Forum*. 76(4): 464–478.
- Greeno, J. (1997). On claims that answer the wrong questions. *Educational Researcher*. 26(1): 5–17.
- Greeno, J. (1998). The situativity of knowing, learning, and research. *American Psychologist*. 53(1): 5–26.
- Grimes, S. and Fields, D. (2012). *Kids Online: A New Research Agenda for Understanding Social Networking Forums*. The Joan Ganz Cooney Center at Sesame Workshop. Available: <http://www.joanganzcooneycenter.org> Downloaded 8 October, 2015.
- Grosbeck, G. and Holotescu, C. (2011). Teacher education in 140 characters: Microblogging implications for continuous education, training, learning and personal development. *Procedia - Social and Behavioral Sciences*. 11(1): 160–164.
- Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., McDonald, M. and Zeichner, K. (2005). How teachers learn and develop. In L. Darling Hammond and J. Bransford (eds), *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do*. San Francisco, CA: Wiley & Sons, 358–389.
- Hur, J. and Brush, T. (2009). Teacher participation in online communities: Why do teachers want to participate in self-generated online communities of K-12 teachers? *Journal of Research on Technology in Education*. 41(3): 279–303.

- Ito, M., Gutiérrez, K., Livingstone, S., Penuel, B., Rhodes, J., Salen, K., Schor, J., Sefton Green, J. and Watkins, S. (2013). *Connected Learning: An Agenda for Research and Design*. Irvine, CA: Digital Media and Learning Research Hub.
- Jewitt, C. (2008). Multimodality and literacy in school classrooms. *Review of Research in Education*. 32(1): 241–267.
- Kedzior, M. and Fifield, S. (2004). Teacher professional development. *Education Policy Brief*. 15(21): 76–97.
- Khan, S. (2012). Getting started with Twitter: A “why and how” for teachers. *English Australia Journal*. 28(1): 55–60.
- Kress, G. (2003). *Literacy in the New Media Age*. London: Routledge.
- Lankshear, C. and Knobel, M., (eds) (2007). *A New Literacies Sampler*. New York, NY: Peter Lang.
- Lave, J. and Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge, UK: Cambridge University Press.
- Lieberman, A. and Mace, D. (2009). Making practice public: Teacher learning in the 21st century. *Journal of Teacher Education*. 61(1–2): 77–88.
- Little, J. (2012). Professional community and professional development in the learning centered school. In M. Kooy and K. van Veen (eds), *Teacher Learning That Matters: International Perspectives*. New York, NY: Routledge, 22–46.
- Lloyd, M. and Duncan-Howell, J. (2010). Changing the metaphor: The potential of online communities in teacher professional development. In J.O. Lindberg and A. Olofsson (eds), *Online Learning Communities and Teacher Professional Development: Methods for Improved Education Delivery*. Hershey, PA: IGI Global, 60–76.
- Margerison, J. (2013). Online discussion forums in the classroom: Can the principles of social media benefit literacy and enhance engagement with learning? *Literacy Learning: The Middle Years*, 21(2): 19–28.
- Merriam, S. (2009). *Qualitative Research: A Guide to Design and Implementation*. San Francisco, CA: Jossey-Bass.
- Miles, M., Huberman, A. and Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. Thousand Oaks, CA: Sage.
- Mills, K. and Chandra, V. (2011). Microblogging as a literacy practice for educational communities. *Journal of Adolescent & Adult Literacy*. 55(1): 35–45.
- Moll, L. (1992). *Vygotsky and Education: Instructional Implications and Applications of Sociocultural Psychology*. Cambridge: Cambridge University Press.
- The New Teacher Project. (2015). *The Mirage: Confronting the Hard Truth About Our Quest for Teacher Development*. Available at: <http://ntp.org/publications/view/the-mirage> Downloaded 8 October, 2015.
- O’Connell, J. (2008). What’s that sound? Tweet: New perspectives on leadership and learning. *Access*. 22(4): 23–25.
- Organisation for Economic Co-operation and Development (OECD). (2009). Creative Effective Teaching and Learning Environments: First Results from TALIS. Available: <http://www.oecd.org> Downloaded 8 October, 2015.
- Pluss, M. (2008). Twitter: Viral professional development and networking. *Teacher: The National Education Magazine*, November: 58–60.
- Putnam, R. and Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*. 29(1): 4–15.

- Roth, W. and Lee, Y. (2007). "Vygotsky's neglected legacy": Cultural-historical activity theory. *Review of Educational Research*. 77(2): 186–232.
- Saldaña, J. (2013). *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage.
- Skulstad, A. (2005). Competing roles: Student teachers using asynchronous forums. *International Journal of Applied Linguistics*. 15(3): 346–363.
- Street, B. (2014). *Social Literacies: Critical Approaches to Literacy in Development, Ethnography and Education*. New York, NY: Routledge.
- Vygotsky, L. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press.
- Walshe, J. and Hirsch, D. (1998). *Staying Ahead: In-service Training and Teacher Professional Development*. Paris, France: OECD.
- Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of Educational Research*. 79(2): 702–739.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, Identity*. Cambridge, UK: Cambridge University Press.
- Wilson, S. and Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. *Review of Research in Education*. 24(1): 173–209.