EAL teachers' professional learning about digital literacies: a socio-material perspective

Edwin Creely
Ekaterina Tour
Monash University
Australia
edwin.creely@monash.edu
katrina.tour@monash.edu

Abstract: It is widely acknowledged that to be able to teach digital literacies as an integral part of second language (L2) education, teachers need to engage in relevant professional learning. However, there appears to be lack of understanding as to what counts as relevant professional learning (PL) for L2 contexts, which has its own specificities. In response to this problem, this paper draws on the survey data and explores how 33 English as an Additional Language (EAL) teachers in Victoria (Australia) perceive their needs in terms of professional learning related to digital literacies. Utilising a sociomaterial theoretical perspective, this study found that EAL teachers engage in professional development (PD) about digital literacies in a number of ways. However, they believed the provision of PD was inadequate because there was an apparent disconnect between what they perceived they need and the current provisions especially in terms of the materiality of teaching digital literacies and its specificity for EAL settings. The paper concludes with implications for professional bodies and future research.
Keywords: EAL, L2, digital literacies, materiality, sociomaterial theory, professional learning

Introduction

Digital literacies need to become an integral part of L2 education in order to equip learners with relevant capabilities to participate successfully in activities mediated by technologies (Hafner, Chik, & Jones, 2015; Dudeney & Hockley, 2016). However, recent research suggests that there is insufficient focus on digital literacies across different geographical contexts. In Australia, it has been found that EAL students have limited opportunities to learn digital literacies in formal learning contexts (Centre for Multicultural Youth, 2017). Similarly, in the U.S., English as a Second Language (ESL) teachers are often reported to use technologies sparingly and at basic levels (Andrei, 2017; Yang & Walker, 2015).

Teaching digital literacies represents a significant challenge for many practitioners and one approach to address this problem is to explore what professional learning L2 teachers receive in relation to digital literacies. This focus is one of the key directions for creating the conditions for successful integration of digital literacies in L2 contexts (Chick, 2011; Lotherington & Jenson, 2011). While the issue of professional learning has been raised in previous research (Dooly, 2009), little is known about how language teachers engage in professional learning about digital literacies.

Exploring L2 teachers' experiences of professional learning (PL) related to teaching digital literacies and their perceptions of their learning needs can be especially generative. This research focus is of particular importance because there is a need to understand how to support teachers' professional learning: as digital technologies continue to develop, 'without further training or education, any teachers five years out of college will find themselves hopelessly behind the times' (Hanson-Smith, 2016, p. 287).

This paper draws on a part of a larger study on digital literacies in EAL contexts in Victoria (Australia) and reports what 33 EAL teachers think about their professional learning. It is informed by the following question: What are EAL teachers' professional learning needs in relation to digital literacies and how are they supported?

Literature review

The concept of digital literacies is often defined differently, depending on theoretical perspectives and educational purposes. This study was informed by a socio-cultural theory of literacy, which views literacy as multiple and connected to socio-cultural practices (Barton & Hamilton, 2012; Pahl & Rowsell, 2005). There are socially and culturally situated ways of reading and writing or multiple literacy practices. Meaningful participation in these practices requires relevant literacy capabilities comprising of skills, competencies, socio-cultural understandings and knowledge (Green & Beavis, 2012). This perspective also takes into account that digital technologies shape how people engage in literacy practices and conceptualises digital literacy as a new form of literacy. Digital literacy practices are participatory, interactive, collaborative, ongoing, non-linear,

highly multimodal and creative (Jones & Hafner, 2012). Digital literacy practices are complex and require 'not just technical skills, but perhaps more importantly, an awareness of the social practices that surround the appropriate use of new technologies' (Dudeney & Hockley, 2016, p.167).

The inclusion of digital literacies in language teacher education and professional learning has been advocated for some time now (Chick, 2011; Lotherington & Jenson, 2011). However, empirical research about in-service L2 teachers' professional learning is scarce. This is not surprising given the comparative novelty of digital literacies in L2 learning (Towndrow & Pereira, 2018). Recent research on digital literacies within mainstream EAL contexts suggests that little improvement has been made over many decades and that traditional forms of professional learning such as workshops and conferences tend to prevail (Jacobson, 2016). System-initiated one-off expert-run professional development events are often 'closely tied to a mono-modal, print focussed paradigm' (Gardiner, Cumming-Potvin & Hesterman, 2013, p. 357) or 'functional grammar' (Honan, 2012, p. 83) implying that teachers have limited opportunities to learn how to effectively teach digital literacies. This is despite a body of research which provides clear recommendations about potentially useful professional development approaches and formats for in-service teachers that focus on digital literacies (Hanson-Smith, 2016; Summey, 2013).

Theoretical framework

In order to understand the professional learning experiences and perceived needs of EAL teachers, concepts from socio-material theory are employed. Sociomaterial theory is about understanding the relationships and intersections between the social and material worlds (including technologies), especially as enacted in everyday life in institutions and organisations (Orlikowski, 2010).

As such, materiality must be accounted for in terms of the construction of networks and practices that are inhabited by human and are often dependent on the design of spaces in which material objects (artefacts) and humans interact (Cruickshank & Trivedi, 2017). Technologies, for instance, are relationally central to both social and institutional processes and to the creation of significance and meaning for humans (Barad, 2003, 2007). In effect, technologies and the materiality of being in the world are not separate but integral to the meanings that humans construct and to their agency in creating knowledge (Orlikowski & Scott, 2008). This deep and interactive set of connections is schematised in Figure 1, with the material being at the centre (or the pivot) of the meaning-making and communicative exchanges.
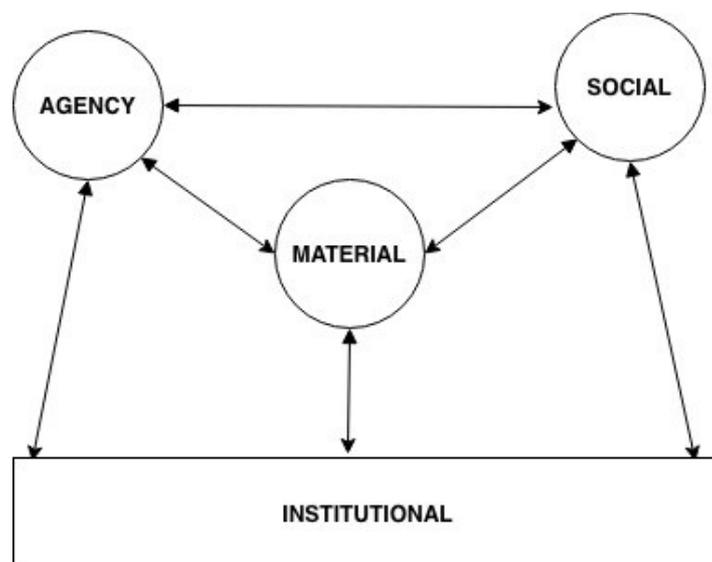

Figure 1: Core aspects of sociomaterial theory

Put simply, people interact with and form meaning from with the 'stuff'' of their worlds, including tools, technologies, bodies, actions and objects, texts and discourses (Fenwick, Edwards, & Sawchul, 2011). This 'stuff' has significance and presence in the so-called digital age in which there is an expectation that

technologies will be employed in teaching and learning in innovative ways that enhance learning. It is also connected to the outcomes and productivity of institutions.

Methodology

The participants of this study were 33 EAL teachers across a range of schools from Victoria (Australia) who completed an online survey. This survey contained 23 items in five sections, including multiple choice, Likert-type questions, and open-ended qualitative items. This paper analyses the data generated in Section 5 of the survey about professional learning, which consisted of three items outlined in Table 1.

Table 1. Items in survey section 5 (Professional learning)

	Item	Response format
1	Do you feel you have received adequate formal professional development on digital literacies?	Yes/no
2	Describe the professional learning you have received on digital literacies (formal and informal)	Open-ended
3	What help would you like to receive on teaching digital literacies in EAL contexts?	Open-ended

Item 1 was adapted from a prior study by Hutchison and Reinking (2011) on technology use in literacy and language arts. Additional two open-ended items were added to gain further insights into teachers' experiences with relevant professional learning and their professional needs associated with teaching digital literacies in EAL contexts.

Survey analysis and findings

In this section we offer description and analysis of selected survey data about EAL teachers' understandings of what is provided in different forms of professional learning, the quality of these provisions, and also their perceptions of their professional learning needs. The analysis is framed around the core aspects of sociomaterial theory discussed above. This theory is also used as an interpretive lens to understand the data.

1. Materiality and engaging in forms of professional learning

Most of the 33 participants in this study, reported that they engaged in professional learning related to digital literacies and they shared a number of examples in their responses. The analysis of the data through a sociomaterial lens identified three main forms of professional learning: (1) institutional learning, (2) social learning, and (3) self-directed learning (driven by teacher agency) - with the material dimension conceived as being central to all forms.

Institutional learning

The examples of institutional professional learning were the most evident in the data set (14). This form of learning is usually associated with formal learning typically generated by either an outside authority as registered training organisations (RTOs) that provide PD or by the participants' schools.

The data suggests that there was considerable focus on digital literacies in terms of what institutions provided, with a number of participants mentioning this specifically. One participant noted the ongoing nature of PL apparently supported by the teacher's school: "I have received formal... training and participated in a number of professional development sessions on digital literacies throughout my teaching career".

Clearly there is a perception of overt institutional support for PD. There was also considerable focus on competence with digital technologies and particular apps and software, though there is little indication that this is EAL specific. However, other participants pointed to the lack of PD: "I have had very little PD in this area", "a few PDs" and experienced "a few workshops only". Evidently, PD provision could be characterised as generally in place, though uneven across different school contexts.

In terms of the materiality of these institutionally driven PD offerings, there was considerable reference to quite specific digital objects and resources in the survey. Responses included the following:

I attended a PD on differentiation through digital literacies. I have been shown how to use the interactive whiteboard and google classroom.

[PD on] using Kahoot for quizzes.

OneNote, blogging (one lesson).

PD for using Blackboard, Canvas, Google Docs, Padlet (participant 14)

These responses point to awareness of specific digital material resources that might be applicable to an EAL classroom. However, there is no indication of the pedagogical framework needed to implement such resources and how they might be used effectively in an EAL context.

Social learning

The social aspect of understanding and learning about digital literacies is about connections with colleagues within institutional contexts and includes mentoring and sharing about digital literacies and the resourcing for teaching and learning in EAL classrooms.

One participant wrote about "Forums as well as in house sharing ", whilst others noted "some instruction from other teachers" and that they "learnt a lot from other teachers" or had received "informal snippets" about digital literacies. In terms of mentoring, another participant observed the following: "I have received... informal training… throughout my teaching career". This focus on the importance of mentoring practices around digital literacies is supported by another teacher, who wrote: "I am currently receiving one-to-one mentoring for approx 2 hours per week in class for 6 weeks". One teacher pointed to more formal mentoring and in-house teaching: "Usually from peers (in our own school) who conduct sessions in times that suit staff after school".

In these responses there is a focus on the provision of PD in the form of collegial practices. This did not include detail about the content of the learning or about the place of the material needs of EAL teachers.

Self-directed learning

Self-directed PD points to independent learning explorations or autonomous personal learning about digital literacies. Such self-directedness suggests the importance of agency and perception of need by EAL teachers. In the survey there is some indication of self-directed learning in terms of digital literacies. The range of responses to the survey included the following:

I am completely self-taught as I'm an early adopter.

My own professional reading.

I expand on this in my own time.

Most of it is self-taught as there is just never enough time for formal professional development.

Outside of the provisions of schools and peer-to-peer learning within school, there is reasonable indication of self-learning and reflexivity about digital literacies. It is not fully clear whether this self-initiated learning is supplementary to more formal provisions. Nor is there any specificity about the content of the learning. There were two responses that pointed to non-educational industries as the source of self-initiated PL.:

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I have attended my own sessions (digital camera classes and use of digital literacies for students with learning difficulties).

All my digital learning was brought with me from my prior work in the printing industry.

In these cases, prior learning seems important in these teachers' understandings of what digital competencies they bring to the EAL teaching space, though the specificity of the digital skills and understanding can only be inferred from the responses.

2. Quality of professional learning

Another aspect of the survey were perceptions about the quality of the professional learning provided for EAL teachers. Three-quarters of participants did not feel that their formal profession learning about digital literacies is adequate. The reasons given for this apparent dissatisfaction with the quality of the PL included the following: (1) quantity of PL allocation and (2) specificity of the PD.

For examples, participants wrote about having "very little PD in this area" and that there was "just never enough time for formal professional development." The last quote suggests an issue with the allocations of time release for teachers to do PD about digital literacies. A lack of specificity appears to be a general concern in this data set. Two participants noted this by writing the following:

Presentation from DEECD employee - general information

Not specifically for EAL learners

This feedback suggests that PD provisions, especially formal institutional provisions, may lack the highly specific and discipline-oriented focus needed by EAL teachers.

On the other hand, there were also some positive comments about the quality of the provisions for PD. One participant wrote: "At our large organisation we have workshops and introducing new tools into the classroom. They are helpful and I adopt them as quickly as possible". And another noted that "inhouse at school - very good pd esp with Google suite". As in previous descriptions of PD offerings the specific application of this learning about digital technologies to the classroom needs of teachers is not spelt out.

3. Teachers' perceived needs

A second focus of the survey was about EAL teachers' perceptions of what they needed in terms of PD about digital literacies (as seen in Item 3, Table 1). One of the more significant needs as reported by teachers in this survey is about practical strategies and supporting teaching resources orientated to EAL classrooms. One respondent wrote: "I would like more real support for EAL teachers from DET [Department of Education and Training], not just "information" but real resources which are ready to use. There are very few EAL resources which actually suit the current curriculum". Other responses included the following:

Shared best practice and strategies

Pedagogical approaches

More examples of what others have used.

Recommendations from others with opportunity to practise

Examples how to teach would be good

Practical advice on actual lessons and their benefits.

Ideas. Articles. Worksheets. Recommendations of programs/apps and how they can be incorporated in EAL class.

New arrival specific apps and activities.

Clearly, in these examples, there is a considerable inclination to see PD not only in terms of the learning about digital literacies but also in regard to both material provisions and the accompanying pedagogical practices.

Another notable emphasis in what teachers perceive they need is more formal PD that is specific to digital literacy learning in EAL. There were a variety of responses in this regard, which ranged from "Short bite sized training", to "PD specific to digital literacy", "More specific PD on digital literacies and what should be covered" and "pd which is EAL specific". Several participant responses also identified the need for training in particular apps, summed up by the comment: "Training in using podcasts, Training in utilising useful tools on the mobiles." Another participant wrote: "Use of Active Inspire so I can re-fresh my skills with the IWB and flip charts to meet needs of students. Use of apps that are particularly suited (e.g. spelling programs). Also, software such as Boardmaker so I can design more games for my students." In these examples, the specificity of the needs of the teacher is quite pronounced.

Within this data set, whilst limited to short qualitative comments, there is a strong emphasis on the PD that is focused both on the specificity of the material offerings and, importantly, on the pedagogical underpinnings that accompany that material provision (Dudeney & Hockley, 2016). One participant points to the apparent dire nature of current provisions by writing the following: "As yet, l haven't come across any EAL classes that have incorporated "digital literacies". Another participant identified the following needs: "PD for using Blackboard, Canvas, Google Docs, Padlet". It is unclear if the reported needs were about pedagogy or simply about how to operate particular software or apps.

Discussion

The findings of this study suggest that EAL teachers mainly rely on formal professional learning opportunities provided by their institutions in relation to digital literacies. For them, it is an accessible and important form of professional learning. However, there was an apparent disconnect between what was currently provided or available in different forms of professional learning and what EAL teachers perceived they need to be able to teach digital literacies. While existing forms of professional learning allowed for developing some knowledge and understanding about digital literacies, they only partly catered for EAL teachers' learning needs in a generic sense. By contrast, EAL teachers reported more focused needs related to the materiality of teaching digital literacies and its specificity for EAL settings. In particular, there was a high demand for physical and digital resources together with supporting pedagogies.

While the importance of material resources cannot be underestimated, the teachers' limited reference to the role of their professional agency in using these resources is somewhat alarming. Of course, agency depends on material provisions and pedagogical understandings, and cannot be enacted without both. As Ávila (2013) argues: "engaging with digital literacies requires initiative; they do not simply land in your mind through completion of a simple list of what-to-do." (p.106). This call is even more important for EAL contexts which are multiple, diverse and thus, requiring careful adaptation and modification of learning materials and pedagogies.

Plainly, the need for specialised material provision and a greater focus on teachers' agency in the context of professional learning initiatives and offerings is crucial, supporting existing recommendations for professional development programs about digital literacies (Burnett, 2011; Dudeney & Hockley, 2016; Dutt-Doner et al., 2006; Chik, 2011; Karchmer, 2001; Tour, 2015).

Previous research has suggested that professional learning offerings need to teach practitioners how to integrate digital literacies in their language programs (Dudeney & Hockley, 2016). This study identified that EAL teachers need a combinations of material resources, social engagement, mentoring and pedagogical capacities to be able to teach digital literacies effectively.

Conclusion

Teaching digital literacies as part of EAL programs is critical to the contemporary needs of English second language learners. This study suggests that EAL teacher professional development is essential to all the efforts to enrich and improve learning about digital literacies across all sectors. Professional learning does not guarantee transformations in practice, but its importance cannot be underestimated. Also, highly important is the centrality of specific material resources to complement PD provisions by institutions, together with appropriate

pedagogical practices that support the resources. There is a clear need for further research, suggested by the lack of literature about EAL teachers professional learning about digital literacies. There is also a need for more specific and nuanced approaches to professional development about digital literacies for EAL practitioners.

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