

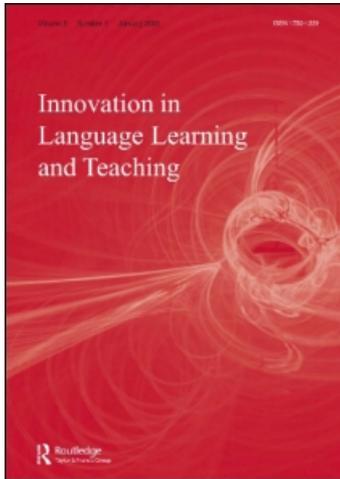
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### Teacher education in CALL: teaching teachers to educate themselves

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## Teacher education in CALL: teaching teachers to educate themselves

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The issue of teacher education in computer assisted language learning (CALL) has been receiving an increased amount of attention in the literature over the past few years, including as the focus of a recent book (Hubbard and Levy 2006). This attention is indicative of greater recognition of the importance of CALL practitioners having sufficient grounding in CALL theory and practice, as well as knowledge of what technologies are available to them in order to be able to effectively implement CALL in their specific language learning environments. While some institutions provide such training for their teachers (e.g. Leahy 2006), the reality is that only a small proportion of people who plan to use – or are already using – technologies in language learning contexts have access to this training; for the majority, the burden of learning how to best use CALL in the classroom falls upon the teachers themselves. This paper describes a procedure through which teachers may educate themselves regarding how to introduce CALL into their given language learning contexts. Teachers of English at a private university in Japan were given a two-hour seminar at the beginning of the semester outlining the considerations to be kept in mind when introducing technology into their learning environment. Data collected during and at the end of the semester reveal teachers' reflections on the procedure as well as on their own efforts to use technology for the first time. The results are discussed in terms of the challenges encountered by teachers in educating themselves to use CALL and the factors affecting their success.

**Keywords:** computer-assisted language learning; teacher education; self-directed learning; CALL training; technology

### Introduction

Without the support and guidance that CALL teacher education programmes may provide (e.g. Son 2002, 2004), becoming familiar with CALL is a very daunting task indeed. Given that even teachers with CALL training find it difficult to keep up with the rapid developments in the field (Hanson-Smith 2006), those without any training at all are in a most unenviable position. Faced with this challenge, many who are new to CALL try to seek out new technologies as the first course of action, but are often disappointed with the results they achieve. Turning to new technologies as an automatic 'fix-it' is not particularly surprising: CALL has frequently been regarded in many ways as a techno-centric discipline (Levy 1997; Stockwell 2007), where some feel, albeit usually mistakenly, that new technologies should be able to do anything they need them to do in their teaching contexts (Bax 2003). Technology is obviously

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more visible than the underlying pedagogy, which may cause some teachers to focus more on the technology itself rather than on developing a pedagogy which is facilitated by the technology. In addition to this, we are now seeing a generation of learners who are far more technologically aware than many learners have been in the past, where the 'wow' factor associated with using technology in language learning situations is far less of an attraction than it might have been a decade or so ago. Learners themselves now bring with them certain expectations regarding technologies that place greater pressure on teachers to be not only familiar with but also competent with a widening range of technological tools that learners are using both inside and outside the classroom. Coupled with this is a growing awareness among educational institutions of the importance of having skilled CALL practitioners, which is increasing demand for qualified teachers with technological experience, thereby placing greater pressure on teachers to possess technical skills to set themselves aside from potential competitors for jobs or promotions.

There are, of course, more opportunities for teachers to learn about CALL than in years gone by. CALL education can take a range of shapes and forms, including department or faculty-wide training (Iskold 2003), institution-wide CALL training (Leahy 2006), cross-institutional groups (Murray 1998), or other formal courses for pre-service and in-service teachers, such as university or other professional courses (e.g. Rilling et al. 2005; Son 2002). In saying this, however, the reality is that it is still difficult to access CALL education for many, leaving the responsibility to fall upon these teachers to educate themselves. This may be due to a lack of policy regarding CALL at a faculty or institutional level, a lack of awareness of the existence of professional courses, or even a lack of financial resources or linguistic skills to take part in such courses.

### **A road to self-direction**

While the recent literature is not devoid of pointers regarding what needs to be kept in mind when undertaking the task of introducing technology into a language learning context, there appears to be still very little that amounts to a concrete list of suggestions that would benefit a teacher or administrator faced with such a task and little clue of how to go about it. Thus, I would like to collate three particular examples from the literature to compile a list of strategies that may be helpful in being able to introduce and effectively use CALL independently.

The first of these is by Robb (2006) who outlines, among other things, the need for a solid knowledge base of functions of available technologies, confidence to attempt to use new technologies, and an awareness of available resources to assist with understanding technologies. The points listed by Robb here clearly identify the importance of having sufficient knowledge of and confidence in using both new and existing technologies, however, the orientation is a rather technology-focussed one and fails to take into consideration other factors that play a critical role in the successful implementation of CALL. Equally important is the fact that while confidence in using technology for language learning may open up a wider range of options, it does not necessarily entail 'innovative and integrated use' (Kessler and Plakans 2008, 277). In fact, their study showed that those teachers with the highest amount of confidence were the least likely to integrate technology into their teaching environments; rather, it was those with only a moderate amount of confidence that were the most likely to use CALL in an integrated and varied manner. Thus, it is

important to look beyond the technology, and view the learning environment from a more balanced perspective.

The second example approaches the issue from a rather different standpoint. Levy and Stockwell (2006) outline the need to have a clear idea of learning objectives, knowledge of the technological options and the pedagogical implications, and knowledge of students' abilities, goals, and perceptions related to different types of CALL. The importance of pedagogy is stressed here in terms of learning objectives and how different technological options may inherently bring with them the aspects that affect how these technologies can be used in the achievement of particular pedagogical goals. In addition, Levy and Stockwell also remind us that different learners possess varying and variable skills and ideas about different types of technology for language learning, and may also have different goals in using a particular type of CALL. These are essential points to bear in mind, but this list is also problematic in that the suggestions are broad and therefore potentially difficult to pin down for self-directed learners of CALL.

The third and final example is from Lewis (2006), who from reflection on his own experiences in learning about CALL suggests the need to develop teaching through critical reflection using a diary or log book, observation by an experienced mentor, and seeking feedback from students. Lewis's suggestions differ from the earlier two in that they do not specifically deal with the technology itself, but rather with the importance of teachers being aware of what they have used and how well it worked through observation either by themselves or by someone with experience in using technology, or through directly asking the students.

It is very clear that each of these examples introduces a rather different way of looking at the issue of how CALL should be introduced, and a combination of the three approaches provides a more balanced view from which to build the list of suggestions, which is described below.

### **CALL self-direction strategies**

Based on the three examples above, the following strategies were devised to assist teachers who are in an environment where they must take responsibility for their own learning regarding using CALL. They are divided into five main categories, each of which includes a number of more specific strategies for CALL implementation. There are intentional overlaps between sections as it was expected that certain strategies may play a role in achieving more than one objective. The strategies are outlined forthwith:

1. Critically examine the environment
  - Be aware of what the specific teaching goals are.
  - Find out what students' abilities are with technology.
  - Identify close-at-hand sources of support (technical and non-technical support).
  - Determine availability of technology and CALL rooms.
2. Seek sources of information
  - Identify sources of books and academic journals (e.g. libraries or the internet).
  - Track down discussion lists pertaining to different technologies.

- Look for communities of support (i.e. conferences or special interest groups).
3. Keep up with technological developments
    - Identify local conferences or special interest groups.
    - Read associated journals or books (e.g. libraries, bookshops, catalogues).
    - Find out what different technologies can and cannot do (i.e. get access to technologies and try them personally).
  4. Set and adhere to learning goals
    - Decide on the pedagogical objectives of the course first (check with programme and institutional goals).
    - Decide whether technology is indeed necessary to achieve this, and if so, what the best technology is.
    - Continually monitor whether technology is causing a diversion from the learning goals (i.e. the technology is taking precedence over pedagogy).
  5. Track your progress
    - Keep a journal of what worked and what did not.
    - Note any modifications made, along with the reasons and the outcomes.
    - Identify someone who can observe how you are using technology.
    - Check with the learners (i.e. through surveys, interviews, etc.).

The strategies were designed to give teachers and administrators a starting point from which they could take the first steps towards being able to use CALL in a given environment, but at the same time are of relevance to even more experienced CALL users in evaluating and revising their current usage. The focus of the current study, however, was to specifically look at new users of CALL to determine whether they would be able to teach themselves how to use CALL with no assistance apart from the above list of CALL self-direction strategies to assist them in achieving this. Specifically, the study sought to answer the following research questions:

1. Are teachers with little or no experience of CALL able to introduce CALL into their language teaching environment?
2. If so, what types of activities do these teachers adopt, and what affects their decisions in choosing these activities?
3. What are the factors affecting the success or failure of these teachers in introducing CALL?

## **Methodology**

### ***Participants***

At the end of the previous academic year, part-time teachers at a private university in Tokyo were invited to take part in a two-hour seminar conducted by the author which provided them with an overview of CALL. The seminar was explicitly intended for those who had little or no experience using technology for language teaching. Seven teachers participated in the seminar. It was explained to them at the beginning of the seminar that it was hoped that they would use CALL during the first semester of the upcoming year; they were also told they would be responsible for their own support during this time, and would be asked to report back on their experiences at the conclusion of the semester. Teachers were also informed that they were free to

take part in the seminar only without any obligation if they preferred. Three teachers decided that although they would like to participate in the seminar, they would rather not take part in the later study, leaving four participants in the study.

### ***Introductory seminar***

The introductory seminar was hosted in a workshop format on completion of the survey with seven participants. The seminar was not intended as a replacement to a full course on CALL or as a training seminar, but only as a very brief introduction as to what CALL is, to give some simple examples of its use, and then to equip teachers with strategies to educate themselves in using CALL in their language teaching environments.

As such, the broad objectives of the seminar were:

1. To introduce fundamental concepts of CALL.
2. To demonstrate some example CALL applications.
3. To provide strategies to facilitate self-directed use of CALL.

The seminar was broken down into three sections addressing these objectives in turn. As the purpose of the study was to see how teachers would act in an environment where they were predominantly teaching themselves how to use CALL rather than as part of an institution-based programme or formal course of study, the initial idea was to only provide teachers with the strategies for self-directed learning of CALL usage from the third section. However, this was considered impractical and unrealistic, especially as the teachers were asked to come together in their own time on a volunteer basis. As a result, it was felt that it was only fair to provide them with at least an overview of CALL before asking them to go out on their own and attempt to use it. The first two sections were, however, kept quite short and broad.

In the first section, essential aspects were outlined, such as describing the nature of CALL in terms of some of the technologies used, how to evaluate CALL resources, some of the constraints facing CALL practitioners with regard to integration at a curricular and institutional level, and so forth. This explanation lasted for approximately 30 minutes. In the second section, some examples of CALL resources were introduced, including commercially available CD-ROMs, freely available websites such as Randall's ESL Cyber Listening Lab ([www.esl-lab.com](http://www.esl-lab.com)) and Dave's ESL Cafe ([www.eslcafe.com](http://www.eslcafe.com)), and some commonly used authoring tools including *Hot Potatoes* and *Moodle*. While the teachers were given the opportunity to try to use some of the tools, they were not shown how to install them, and the focus was more on making them aware of their existence so that they could attempt them for themselves if they so desired at a later date. In addition, the teachers were shown some freely available bulletin board system (BBS) and blog sites, as well as *Skype*, *Yahoo! Messenger*, and other computer mediated communication (CMC) tools. These were shown to the teachers over a period of around 60 minutes. The final section was dedicated to providing the teachers with the range of strategies outlined in the earlier part of this paper to assist them in educating themselves regarding using CALL, and lasted for approximately 30 minutes.

Examples given during the seminar intentionally did not include specific names of organisations, and assistance was not offered to the teachers during the semester, who were asked to deal with problems independently as if in a self-learning

environment. Despite this, during the study, two participants did contact the researcher for information about local groups that they may get involved with.

### ***Data collection***

Data were collected through a pre-usage questionnaire, a strategy journal, a post-usage questionnaire, and structured interviews. Regardless of their intentions to participate, all seminar attendees were administered with a questionnaire regarding their language teaching backgrounds, their experience with technologies, the types of materials generally used when teaching (i.e. non-CALL), methods used (if any) for finding out about CALL in the past, and their reasons for wanting to use CALL and their expectations. Given the small number of respondents and that collected information was to be collated with data gathered later, it was decided not to make the survey anonymous, and all attendees agreed to provide this information for the purposes of the study.

The four participants in the study were also asked to complete a strategy journal where they recorded all of their experiences in following the self-direction strategies during the semester, and to submit it to the researcher at the end of the semester. This strategy journal was different from the CALL usage journal that was outlined in the strategies. On completion of the semester, the participants were administered with a second questionnaire, which asked them to outline the degree to which they used CALL, the skills they taught with CALL, the specific technologies they used, the details of tracking and observation they used, and a list of the strategies that they did or did not find useful. Finally, they were asked to provide further suggestions for new CALL users.

All four of the teachers who agreed to participate in the study returned the completed questionnaires and agreed to take part in an interview, which was held a few days after the questionnaires were received. Each of the interviews lasted for around 15–20 minutes, and was audio recorded with the permission of the teacher.

It should be noted that the study provided a different environment from one in which teachers are completely self-directed, but logistically it was not possible to collect data without some intervention from the researcher. Accordingly, while the current study took place with minimal input from the researcher, it is likely to have affected the outcomes of the strategy use to some degree.

### **Results**

The pre-survey results revealed that the four teachers who participated in the study were varied in their ages and in their experience with both teaching and technology. As shown in Table 1, the teachers each fit into a different age group, and majored in either linguistics or literature. Teaching experience was relatively proportional to their ages, with the youngest teacher (Subject A) having the least amount of experience (less than three years), and had not used self-made handouts at the time the questionnaire was administered. In contrast, the eldest teacher (Subject D) had over 10 years of teaching experience (this was chosen from a list of options where this was the highest option), and had used the greatest variety of materials in their teaching. The skills that were to be taught were dependent upon the subjects that they would be teaching at the university in the upcoming semester, and classes taught elsewhere were not included here.

Table 1. Pre-survey results regarding personal backgrounds of participants ( $n=4$ ).

	Subject A	Subject B	Subject C	Subject D
Age range	26–35	36–45	46–55	Over 55
Major	Linguistics	Literature	Linguistics	Literature
Teaching experience	>3 years	4–5 years	<10 years	<10 years
Materials used	Commercial textbook, videos/ DVDs, audio cassettes/CDs	Commercial textbook, videos/ DVDs, self-made handouts	Commercial textbook, videos/ DVDs, self-made handouts	Commercial textbook, videos/ DVDs, audio cassettes/CDs, self-made handouts
Skills to be taught	Listening, speaking	Reading, writing, listening, speaking	Reading, writing, listening, speaking	Listening

General technology experience was self-rated on a 10-point scale where a score of zero indicated no experience whatsoever and a score of 10 indicated a great deal of experience (see Table 2). The youngest teacher (Subject A) gave the highest rating and the eldest teacher (Subject D) gave the lowest. Only Subject B indicated on the survey that he had used technology in teaching before, writing that he had used PowerPoint for presenting material. Subject A wrote on the survey that she had not used technology for teaching, but later in the interview remarked that she had used the internet for searches in class on a couple of occasions. All four subjects indicated that they had considered using CALL beforehand, but only Subjects A and B had actually taken action to find out more information regarding CALL.

The subjects' expectations regarding the use of CALL are shown in Table 3. As the table shows, the reasons given for wanting to learn how to use CALL were varied,

Table 2. Pre-survey results regarding technology experience of participants ( $n=4$ ).

	Subject A	Subject B	Subject C	Subject D
General technology experience	7/10	5/10	5/10	3/10
Comfortable doing with technology	Writing documents, spreadsheets, email, searching internet	Writing documents, spreadsheets, email, searching internet	Writing documents, email, searching internet	Writing documents, email
Used technology for teaching	No	Yes, PowerPoint	No	No
Considered CALL before	Yes	Yes	Yes	Yes
Actions taken to learn about CALL	Tried to find information on the internet	Asked colleagues for help	Nothing	Nothing

Table 3. Pre-survey results regarding participants' expectations of CALL ( $n=4$ ).

	Subject A	Subject B	Subject C	Subject D
Reasons for wanting to use CALL	For future career	Heard from a colleague that it was useful	Focus more on grammar of each learner	Make classes more interesting
Expected CALL usage	50%	80%	30%	50%
Anticipated benefits of CALL	More personalised learning	Make learning more fun	Individual practice	Motivate students
Types of tasks possible with CALL	Vocabulary drills, internet searches	Listening, chat	Grammar and vocabulary drills	Grammar practice
Desired skills to teach with CALL	Vocabulary	Reading, listening	Reading, grammar	Grammar

and included preparing for their future career, wanting to try on the basis that colleagues had found CALL useful, a desire to focus more on each individual learner, and a wish to make classes more interesting.

How much CALL was expected to be used was also quite varied, ranging from 30% of classes (Subject C) through to as much as 80% of classes (Subject B). When asked what teachers saw the anticipated benefits of their using CALL to be, two of the teachers cited a desire to improve the learning environment (Subjects B and D), while the other two indicated that they wished to personalise learning (Subjects A and C). As the table shows, the types of tasks that were thought possible included vocabulary, grammar, listening, chat, and internet searches. Two teachers wished to focus on grammar, two on reading, one on listening and the other on vocabulary, but this largely followed the types of courses they were to teach in the upcoming semester.

At the end of the semester, the teachers completed a post-survey and submitted their strategy journal to the researcher, regardless of whether they ended up using CALL in their classes or not. The main results of the post-survey are shown in Table 4. The survey revealed that three out of the four teachers attempted to use CALL in some capacity, ranging from 20% of classes through to as much as 50% of classes. Subject D responded that he had not used CALL at all. Skills that were taught were similar to those predicted in the pre-survey, but some differences were also evident.

Further information regarding the responses to the post-survey was found in the strategy journal and in the interviews. The strategy journals were designed to allow

Table 4. Overview of post-survey results regarding CALL usage ( $n=4$ ).

	Subject A	Subject B	Subject C	Subject D
Actual CALL usage in class	20%	50%	40%	0%
Skills taught using CALL	Vocabulary	Listening	Writing, Grammar	–
Types of CALL activities used	Website	Website	Had students send emails	–
Classes observed?	No	No	No	–
Student feedback obtained?	No	No	Yes (survey)	–

teachers to record their own experiences in trying to use CALL, and revealed some interesting details. All three of the teachers who ultimately used CALL (Subjects A, B, and C) tried internet searches as their first means of finding information. Subject D, on the other hand, went to the local bookshop to locate any books on the topic, but being unsuccessful gave up on using CALL from the outset. Subjects A and B contacted the university about technology and support available to them. The teachers who used CALL noted difficulties in finding resources to match their pedagogical goals, and ended up using CALL in a way that differed from their original plan, or abandoned using it for some or all of the tasks they had intended.

Only one of the teachers (Subject B) located a special interest group, which he joined and even attended the annual conference. He wrote that he found great benefits from doing this, stating that the information obtained was ‘invaluable for developing new CALL tasks in the future’, as he was able to ‘see CALL being used and researched, and find out more about what other possibilities are available’. He also pointed out that such a forum allowed him to ask questions about how to actually set up certain technologies, and to network with others to exchange information.

It is important to note, however, that all of the teachers who participated in the study indicated that books and journals were difficult to access. It was pointed out that bookshops do not carry a wide variety of books on the topic, and they felt buying online was risky given the high costs of the books, particularly when it was not possible to look inside them to see if the level was appropriate to their needs. Journals also proved to be difficult to attain. Two teachers complained that as they were part time, they did not have access to the university library. Online journals provided some information, but as Subject C wrote:

I could find some journal resources online, but it was difficult to tell what I could trust. I found myself referring more to the major publishers, but was somewhat taken aback at being charged US\$75 per year to subscribe to a journal, or US\$15 for a single article!

The interviews took place a few days after the post-surveys and the strategy journals were submitted, and were designed to focus more specifically on the strategies than the way in which CALL was actually used (although some discussion about CALL usage was also included). Comments were both positive and negative in tone, examples of which are given below. Two positive comments were:

The strategy list was very helpful in getting me to think about my learning environment and whether CALL is really the best option. Some things I planned to use CALL for in the beginning turned out to be better done without it when I analysed things more carefully.

Not knowing where to start from, the strategies really gave me a foot in the door to a field that is very daunting for people who have little knowledge about computers in education.

In contrast, two comments that were a little more negative in tone were:

The strategies take a long time to incorporate. While I see that they are all necessary, it will take me at least 2–3 semesters using CALL to be able to use most of them effectively.

Reading books and journals would be helpful once I had a better understanding of what CALL actually is. I started with a few books, but found them very difficult to get into and to imagine the immediate practical application to my own classes.

The results of the surveys, strategy journals and interviews give some insight into the complexities involved when teaching oneself about using CALL, providing information regarding the range of factors that must be taken into consideration. This is considered in more depth in the following section.

### Discussion

This study outlines the experiences of teachers getting started in using CALL where they needed to teach themselves how to do this without the support of peers or formal training. The results indicated that of the four participants who agreed to take part in the study, three were successful in using CALL in their teaching environments. Of these, two teachers indicated that they used CALL less than initially planned, and only one responded that they used CALL more than they had expected to. The types of CALL materials that were used by the teachers also differed somewhat from their original plans, with all of the teachers opting to use free ready-to-use web-based resources, and one supplementing this with email. Given that authoring software such as *Hot Potatoes* or *Moodle* require a certain degree of skill, in addition to access to and knowledge of how to upload files to a server, it is perhaps not surprising that all of the teachers chose to use existing sites. Two of the teachers used sites that were introduced in the initial seminar, and the third was able to locate further information through internet searches they performed themselves. The decision to use an existing generic tool – in this case email – is also a fairly natural choice, given that the teacher was already familiar with using it, and that all of the students had email accounts provided to them by the university. There was no need to introduce anything new to the environment in a technical sense, but rather just to explain to students how to use the existing tool. In the current study, the teacher who used email asked the students to write a short report twice during the semester, and submit these to him by email. These were subsequently printed out, corrected, and returned to the students manually.

There is a danger, however, in an approach where technological resources are used on the grounds of convenience. It becomes easier to be led by the technology rather than a sound pedagogy, and teachers may end up settling on using certain CALL resources because of availability, cost, and ease of use rather than on applicability to the learning environment. In saying this, testing out existing resources can also be a short-cut way to seeing what actually does and does not work in a classroom environment, and provide opportunities for identifying necessary or desirable features of CALL technologies. To be effective in achieving this, however, teachers must be diligent in keeping records, and be constantly viewing the learning environment with a critical eye. This is where the importance of maintaining a CALL usage journal is the most evident, and gives teachers the power to benefit from existing and accessible tools and resources, either in terms of designing new ways of using them to achieve different learning goals, or to help in deciding on alternatives or developing new ones.

Teachers in the study generally avoided seeking feedback, with none choosing to be observed by a mentor, and only one teacher administering a student survey. When asked further information about this in the interview, two of the teachers responded that they felt that they weren't confident enough with using the technology before having a chance to try it out by themselves first, and indicated that observation of a teaching approach which was still largely unknown to themselves was potentially embarrassing. The third teacher attempted to locate an experienced CALL user to observe his classes (Subject C), but was unable to find someone with sufficient skills to

be able to act as a mentor who was available at the time that the class was held, so used student surveys instead. When asked about the student surveys, Subject C replied that he felt that they were very informative, and that he would instigate some changes in the way in which he conducted the CALL component of his classes based on comments made by the students. The two teachers who did not use student surveys in the current study felt that now they had had a chance to run through one semester using the CALL materials, they would definitely use student surveys in later semesters. In saying this, they still expressed reserve at having their classes observed by a mentor in the short term, but said they might consider it as a possibility in the future.

The difficulties associated with class observations are noteworthy, but not entirely unexpected. Peer observation of classroom teaching has been identified as a potentially effective means of development for language teachers (e.g. Mann 2005), but it has also been noted that having classes observed by a third person can be threatening and leave teachers feeling vulnerable (Wajnryb 1992). While Cosh (1999) offers suggestions as to how to alleviate this anxiety to a degree, few would argue with the fact that many (if not the great majority of) experienced teachers have little opportunity to have classes observed, and would feel reluctant to have their teaching practices observed for fear of losing face in the eyes of not only the observer, but perhaps also in the eyes of students. There are, of course, many teachers who would welcome observation if possible, but the study did suggest that availability of suitable observers is also a potential hurdle.

Another issue of importance was that of the value of books and journals to the participants in the current study. The teachers seemed to indicate that as complete novices, the books and journals that they could access had limited value to them, arguing that it was difficult to know what to read, and that it would be far more meaningful to see actual examples of CALL in practice rather than just reading about them. This coincides with a pointed observation from Garrison and Anderson (2003) who argue that while there is an ‘an abundance of craft “know how” books offering guidance on how to conduct an e-learning experience’ (74), these methods cannot replace actual hands-on training and experiential learning. Added to this is the difficulty in accessing journals and books. Resources are not uniformly available to teachers in all regions, or even within all teaching situations within a single region, where part-time teachers often have restricted or no access to materials that might be of assistance to them. The same may be said of books, the costs of which may be prohibitive when considering that several books may be required at one time in order to get up to speed with using technology effectively in a teaching environment in a short amount of time.

How then, can teachers who are novices with CALL and working in a self-directed environment find out more about how to use CALL, and get feedback from other, more experienced users? One possible solution is to locate appropriate ‘communities of practice’ (Hanson-Smith 2006), where teachers are able to network with others to seek advice, as has been done in both CALL (e.g. Ryymin, Palonen, and Hakkarainen 2008) and non-CALL contexts (Ryan and Scott 2008). In such communities, teachers have a forum through which they may discuss with other teachers how they plan to use CALL in a given environment, and ask more experienced users about whether or not it is appropriate, or even to seek solutions for difficulties that are encountered. One such example is cooperative development via *Instant Messenger* such as that suggested by Boon (2007) and Edge (2006). In this type of environment, teachers may openly discuss areas of their teaching that are of

concern to them with one teacher assuming a role as ‘Speaker’ and the other as ‘Understander’, aiming to allow them to reflect on their own teaching practices through verbalising them in a non-threatening forum such as *Instant Messenger*, where the participants may or may not be aware of each others’ actual identities. Obviously, locating partners still remains a difficult issue, but as the practice becomes more widely known, it might be expected that forums for linking with partner teachers will become more readily available. Not all communities need to be entirely virtual, however, as Kolaitis et al. (2006) describe, where a team of teachers collaborated to improve the way that CALL was implemented through monthly meetings which occurred in conjunction with discussions over online forums.

## Conclusion

The current study gives us some insight into the challenges facing teachers who are in an environment where they must teach themselves about how to use CALL, without the benefit of pre-service or in-service programmes, or training from the institution. Even though the teachers here were provided with a brief seminar on the nature of CALL, and given a list of strategies to assist them in embarking on the goal of incorporating CALL into their teaching situations, there were a range of difficulties that were encountered along the way.

Success in introducing CALL appears to be dependent on a range of variables. The teachers in the study found that they were constrained by the difficulties in locating resources that would help to guide them in learning how to use CALL and where to find appropriate materials to achieve the learning goals that they had set. The teacher who was unable to find books on CALL quickly gave up, as he felt the task was too overwhelming without some kind of guide to assist him. Teachers settled upon materials that were available rather than those that matched their pedagogical needs, causing them to modify their plans when compared to their initial ideas for how they intended to use CALL. Being involved in a learning community appeared to be beneficial, and the teacher who participated in a local conference indicated it assisted him greatly in seeing CALL used, and allowed him to talk first hand to teachers who were using it and to learn from their experiences.

In terms of implications for self-direction, the current study has shown that there are a number of things that need to be kept in mind when undertaking self-directed CALL education. Firstly, and perhaps most importantly, learning to incorporate CALL takes time. As with any new experience, teachers are unlikely to be satisfied with the result the first time, and must realise that experimentation is essential. Trying resources out, seeing – and keeping a record of – what works and what doesn’t can go a long way towards getting a clearer picture of the best options for the individual teacher in their own context. Secondly, communities of support are essential. Learning from and building upon the experiences of others can be very empowering, and thus lead to wider ranges of possibilities. Finally, it is most essential to always bear in mind that learning to do anything new takes effort. Failures will always be a part of the learning process, and it is important to not give up, even if things don’t go to plan. While resources such as books and journals may be limited in their value in the early stages, with increased knowledge comes an increased skill of differentiating between that which is and is not appropriate to a given learning context. Keeping up with reading and attending workshops and conferences can provide teachers with new ideas, and allow them to view their own environments

more critically. In saying this, however, critical examination of the environment is not something that happens automatically, and it is here too that effort is needed.

The reality is that learning to use CALL in the absence of guidance or instruction is exceptionally difficult. Without some foundation knowledge of the types of tools that exist and how they may be used, introduction of CALL into a learning environment in a way that is satisfactory to both the teacher and the students is unlikely, and success hinges on actively examining and re-examining the environment, becoming familiar with the widening range of tools and resources, and through seeking the help and advice of others.

### Notes on contributor

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