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Information Technology in English Language Learning: Towards a Plan in Teacher Professional Development and Growth

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ABSTRACT

The use of Information Technology (IT) in English language learning has grown over the past 50 years in response to learners' needs and developments in theories relating to the nature of language and language learning. But technological advancement is not neutral. Educational practitioners require ways of determining what IT has to offer and justifying their decisions to utilise it. Using an original lesson outline and instructional aids produced for a primary level (age 9 and above) class in Singapore, this paper illustrates how IT has the potential to create learning opportunities, increase the quality of learning experiences and provide a basis for input variation. The article concludes with four ideas for starting and maintaining a programme of language teacher professional development and growth with IT. Considered individually, each of these items can bring small rewards. But when combined they have the potential to generate more ambitious and transformative action plans.

INTRODUCTION

Technology is a waste of time. (English language teacher, Singapore)

Technology refers to the inventions people make and use to survive and prosper. From the earliest wooden and bone tools to the research conducted in genetics laboratories to combat disease and hunger, technology assists us in being more productive and effective. Yet, technological advancement is not neutral (McLuhan & McLuhan, 1988) and our task in acknowledging and assessing the costs of developing and using technology is confounded by the fact the technology is so pervasive today. A further difficulty identified by Neil Postman (1993) is that technology attacks our cultures to such an extent that we are under constant threat of being tyrannised by machines. Clearly this is not productive and we need ways of determining what technology has to offer so we can utilise its potential to the fullest (McLuhan, Hutchon, & McLuhan, 1978).

In this article I attempt to set the balance straight when it comes to the use of a particular kind of technology in the teaching and learning of English at primary or elementary

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level (age 7-12). My topic is Information Technology (IT) where technology mediates in "…. acquiring, storing, processing and distributing information by electronic means" (Collin, 2002, p. 194). Although IT includes devices such as radio, television and the telephone, I focus mainly on computers. My intention is to show how teachers can accept and adopt this type of IT and then use it to strengthen and consolidate classroom practice.

The article begins with a brief literature review attempting to establish links between IT and English language learning. Next, I use an original lesson outline and instructional aids produced for a primary level (age 9 and above) class in Singapore, to illustrate and discuss how IT has the potential to create learning opportunities, increase the quality of learning experiences and provide a basis for input variation. The article concludes with four ideas for starting and maintaining a programme of language teacher professional development and growth with IT. Overall, my position on using IT in English language learning is this: While I accept that operational obstacles and hindrances exist in the use of IT in primary level classrooms, I am not prepared to accept that minimising the use of IT in the classroom is a strategy that is in the best long-term interests of language teachers or students in contemporary instructional contexts.

THEORETICAL PERSPECTIVES

Over the past 50 years, language teaching has responded to two situational factors: (i) the kind of proficiency learners need, and (ii) developments in theories relating to the nature of language and language learning (Richards & Rogers, 1991). As we have come to know more about what language is, how languages are learnt and what learners need, IT has become smaller, faster, cheaper and easily accessible (Negroponte, 1995). One way to understand and explain this co-evolution is to look at language learning and IT practices before and after the advent of the Internet (Towndrow & Vallance, 2004).

Pre-Internet Language Learning and IT Developments

An early application of computers in education was called Programmed Instruction (PI). In PI, students accessed instructional materials located on large, expensive mainframe computers. For example, the PLATO (Programmed Logic for Automatic Teaching Operations) system of the 1960s hosted tutorials based on the drill-and-practice and habit formation precepts of behaviourism (Skinner, 1957). Linguistically, behaviourism was predicated on predetermined student needs, rote learning, and the accurate reproduction of basic sentence structures, scripted dialogues and decontextualised vocabulary lists.

Following PI (although it is far from certain if it has ended, at all, given the content of some popular, contemporary online learning sites and portals) language teachers turned their focus from grammar towards the development of communicative competence in situations requiring students to use language in unrehearsed contexts (Widdowson, 1978). For example, in practicing the functions of making requests and giving information, students in pairs role-play a scene in a hotel reception: Student A is the clerk and Student B is a newly-arrived guest. Student B asks for a certain type of room over a specified time, and Student A answers with appropriate responses. The use of personal, stand-alone computers in language learning followed the rise of the microcomputer in the late 1970s and early 1980s. Materials writers and teachers quickly discovered that communicative activities and other skills-based work could be supplemented and practiced via exercises stored on hard drives and portable floppy disks (e.g., Jones & Fortescue, 1987).

Communicative Computer Assisted Language Learning

Early pioneers in the emerging field of Computer Assisted Language Learning (CALL) were confident that computers were "… flexible enough to serve a variety of learning theories" (Higgins & Johns, 1984, p. 17). Subsequently, Higgins (1988) famously charted the way ahead for much language curriculum development with IT through a pair of metaphors designed to illuminate contrasting approaches to CALL in classrooms. When assigned the role of 'magister', we assume computers 'know' the truth and can guide learners towards it. Alternatively, when viewed as 'pedagogue', computers await instructions and serve unquestioningly. David Hardisty and Scott Windeatt's (1989) resource book, 'CALL', is an excellent, innovative example of the potential of computers as pedagogues.

At its zenith, communicative CALL featured multi-media CD-ROMs replete with sounds, pictures, animations, written texts and assessments. Vance Stevens' (1992) assessment of the methodological progress made is typical of the enthusiasm felt for CALL at this time:

> … in shaking off the influence of the early behaviourists, CALL is becoming more 'user-friendly', or humanistic. Whatever its precise manifestation, humanism in CALL means that courseware lends itself these days more to what students want it to be than what a particular program designer may have originally intended it to be. This watershed development has not only brought CALL more in line with current thinking about language methodology, but also heralds the emergence of CALL as a versatile tool, as an aid to learning and as an informant on language rather than a preceptor, task-master, or programmed instructor. (p. 11).

The Power of CALL

It was not until 1996 that the power of CALL was fully appreciated and articulated in the research literature. Martha Pennington (1996) boldly claimed:

> The power of CALL in language learning and language teaching is to introduce new types of input, from both a quantitative and a qualitative perspective. The added quantity of CALL input means different possibilities for accessing and developing information. CALL makes for better quality of input as well in being more focussed and more individualized than many other learning media. Thus, CALL modes of teaching and learning can increase the variety or diversity of learning opportunities and the quality of the learning experience in making input of more varied kinds learnable and accessible to each individual learner. Qualitatively different learning modes in CALL may increase the effectiveness of instruction for some individuals or populations of learners. In short, CALL promotes a better learning/teaching process. (p. 1)

Pennington's comments are worth quoting at length because they indicate the nature of language learning requirements up to the advent of widespread access to the Internet. If CALL could, indeed, increase the variety of learning opportunities and quality of learning experiences by making input more learnable and accessible to individual learners, then learners in return would need to be able to respond positively to these possibilities.

The Limitations of Technology in Education

There are some indications CALL development, as a technology, had reached a plateau from the wider literature concerning the use of technology in education. In a perceptively honest analysis of the status of education in the 1990s, Hawkins (1996) identified three disappointments shaping the challenges faced by teachers and students:

1. People did not learn much of lasting use and significance exclusively through the direct transmission of information.
2. The reproduction of new models of education did not work well for broad change in schooling when these frameworks were developed at a limited number of sites.
3. Technology had failed to transform educational practices as promised in the 1980s.

Hawkins' advice to teachers is that technology creates new challenges and has implications for them in two areas of classroom practice. First, teachers must acknowledge that access to vast amounts of information inevitably leads to complexity and uncertainty. Second, educators must support students who bring diverse perspectives to school. These considerations require educational practice to embrace levels of open-mindedness in pedagogy and instructional design, which are not usually present in language classrooms that focus exclusively on skilling, and the correct and accurate reproduction of facts and procedures.

Language learning and IT developments with globally networked computers

Since the mid-1990s, the availability of multimedia and the Internet in schools and individual classrooms has generated fresh debate about the use and utility of CALL. Practitioners are quick to note that language learning on the Web is cheaper and easier to develop than stand-alone CALL. As a result, materials and tools have flourished to assist teachers and learners access and use the burgeoning store of information found online; some early examples include: Dudeney (2000), Sperling (1997) and Windeatt, Hardisty, and Eastment (1999). However, the novelty of dipping into digital materials can quickly dissipate. To really appreciate the transforming potential of Internet-based CALL, its rich reserves must be mined at a deeper level. Arguably, a critical feature in using globally networked computers in language work concerns 'agency' or the power to act (Warschauer, 2004). For example, Cummins, Brown, and Sayers (2007) describe a project designed and enacted by teachers and students at an elementary school in California, USA. In project *fresa* (Spanish for 'strawberry') students brought their family histories into the classroom by researching the tough lives of their parents and grandparents. The students began by brainstorming their ideas and vocabulary relating to strawberry farming and then framed research questions based on their interests (e.g., Why do people who pick strawberries wear scarves across their faces?). The students then developed a questionnaire and interviewed their relatives. After classroom discussions, they analysed and represented their data in multiple formats including drawings, maps and charts. As a direct result of the students' investigations, they became concerned about the effects of pesticides, low wages and harsh working conditions in the strawberry farming industry. Later, the students wrote an information report and sent it to the state governor who promised an investigation. Additionally, the students distributed their work via a Website dedicated to project *fresa*.

The 'Net Generation'

Today's world is not easily defined or described, but as far as IT is concerned we might begin by stating it is marked by instability, unpredictability and profound difference (Appadurai, 1996). In contexts where children grow up surrounded by digital technology, numerous writers have attempted to list their characteristics or themes. For example, in Don Tapscott's (1997, pp. 68-78) experience, members of the Net Generation (i.e., individuals aged 21 or less in 1999) are:

- Strongly independent;
- Emotionally and intellectually open;
- Socially inclusive;
- Globally oriented;
- Contrarian (deliberately going against prevailing wisdom);
- Innovative;
- Preoccupied with maturity;
- Curious; and
- Suspicious.

Alternatively, and famously, Marc Prensky (2001) uses the metaphorical term, 'Digital Natives' to help us understand how contemporary youths '…are all "native speakers" of the digital language of computers, video games and the Internet' (p. 1). Prensky contrasts the behaviour of digital natives with that of 'digital immigrants' in the following way:

> As Digital Immigrants learn—like all immigrants, some better than others—to adapt to their environment, they always retain, to some degree, their "accent," that is their foot in the past. The "digital immigrant" accent can be seen in such things as turning to the Internet for information second rather than first, or in reading the manual for a program rather than assuming that the program itself will teach us to use it. Today's older folk were "socialized" differently from their kids, and are now in the process of learning a new language. And a language learned later in life, scientists tell us, goes into a different part of the brain. (p. 2)

If Tapscott and Prensky are right and we accept their viewpoints, then it is clear the views and behaviour of the Net Generation/Digital Natives are diverse and prone to difficulty. Furthermore, we can easily imagine that meeting their needs and demands is challenging. Tapscott, in particular, concludes that the teachers of Net Generation children must adopt a new paradigm of teaching and learning to move at a pace and in directions that match their views and interests. Essentially, what is required in new era classrooms is an unrestricted pedagogy. One possibility in this direction is called 'pedagogical partnering'.

Pedagogical Partnering

In his most recent book, 'Teaching digital natives', Prensky (2010) adds what he claims is a new and necessary approach to addressing the educational needs of 21st Century learners. He explains:

> Partnering is the very opposite of teaching by telling. In fact, in the partnering pedagogy, the teacher's goal is to do no telling at all (at least to the whole class). Rather than lecture, or even explain, the teacher needs only give students, in a variety of ways, questions to be answered and, in certain cases, suggestions of possible tools and places to start and proceed. In partnering the onus is then

> completely on the students (alone or in groups) to search, make hypotheses, find answers, and create presentations, which are then reviewed by the teacher and the class and vetted for their correctness, context, rigor, and quality. The required curriculum gets covered because the questions the students answer are the ones they need to know. (pp. 13-14)

The essence of pedagogical partnering is that it allows teachers and students to focus on the parts of the instructional process they can do best. The main role of IT here is to support and enable each student in personalising his or her learning. Table 1 provides a breakdown of the primary responsibilities of students and teachers in pedagogical partnering.

TABLE 1
The Primary Responsibilities of Students and Teachers in Pedagogical Partnering (Adapted from Prensky, 2010, p. 13)

Students	Teachers
Find and follow passions	Create and ask the right questions
Use available technology	Give guidance
Research and find information	Put material in context
Answer questions, share thoughts and opinions	Explain (one-to-one)
Practice when properly motivated (e.g., via games)	Create rigor
Create presentations in text and multimedia	Ensure quality

While pedagogical partnering has the potential to engage students in their IT-mediated learning, its enactment is likely to be hindered or frustrated in the absence of a mechanism for making decisions about which technologies are most apt for particular circumstances.

Summary

Large-scale, one-size-fits-all programmed instruction has been replaced by smaller applications that emphasize and support individual learner differences. Additionally, language-learning needs have moved and responded to context-specific demands. There was a time when it was sufficient to memorise and accurately reproduce basic sentence structures, predetermined dialogues and prescribed vocabulary. However, in contemporary situations, computer-processing power has been harnessed to support what we might call 'design-based' classroom work. With IT comes agency and new purposes for language learning, which, by necessity, require different ways to create and enact successfully.

While teachers may encounter technical and logistical difficulties from time to time in enacting CALL, these obstacles should not discourage teachers to such an extent that they are no longer willing to consider the benefits to be gained by using IT as a part of regular classroom practice. My conviction is that when we put pedagogy in the driving seat, technology can be more easily controlled because its use can be justified with reference to robust principles of what we call 'informed practice' (Towndrow & Vallance, 2004). Otherwise the best that we do is to use technology for its own sake. To avoid situations where we give technology undeserved precedence, I suggest in the next section that teachers can

learn to accept and adopt IT, and then use it to enrich and eventually transform language teaching and learning experiences. This is a practice that puts IT firmly in its place.

PEDAGOGIC ASPECTS RELATING TO IT USE IN ENGLISH LANGUAGE PRIMARY CLASSROOMS

There are two key aspects of pedagogic practice with IT—informed use and learning task design—that work together to form the foundations of transformational language teaching and learning. I will illustrate and explain how these features operate through an English language lesson outline that incorporates IT as an indispensable core component.

Informed Use

As first proposed in (Towndrow & Vallance, 2004), informed use is the starting point in planning and enacting effective CALL. Put simply, we maintain that if a teacher knows 'why' IT is important in the realisation of effective and meaningful CALL, then he or she will have a much better idea of 'how' to identify and exploit the affordances or benefits of IT. Of course, it is entirely possible to derive reasons for using IT from practice—say, "Let's just experiment and see what happens"—but this approach may not be robust enough if things do not work out well or for when teachers need to make adjustments to lesson plans in mid-course.

Learning Task Design

Once a teacher knows or starts to appreciate why IT is important in language teaching and learning, then its potential can be harnessed or recruited purposefully. Learning tasks are the cornerstone of classroom interactions and give meaning and purpose to the instructional materials used in and beyond classrooms. Essentially, tasks involve teachers and learners working together (partnering) to complete work that has both worthy and measurable outputs and outcomes. Tasks can be 'regulated' or controlled by specifying, for example, the amount of time available for the completion of a lesson stage or the kind of end product required (e.g., essay, skit, drawing, image or chart etc.). Some tasks are clearly more open-ended than others. For instance, a highly restrictive task is when there is a set answer and usually only one way of deriving it. Alternatively, tasks allowing multiple outcomes with the latitude to use more than one strategy to achieve them are freer and perhaps more liberating in partnering terms.

Based on criteria in (Towndrow & Vallance, 2004, pp. 105, 293) there are at least 15 ways IT can strengthen and consolidate language learning experiences and outcomes; these are by:

1. Making possible work that cannot be done easily, if at all, with paper-based materials.
2. Enabling the integration of various modes of representation (words, images, sounds, gestures, animations etc.) and media (e.g. film, writing, speech etc.).
3. Providing flexibility in terms of when and where teaching and learning occur.
4. Offering access to wide-range, and unique, sources of information.
5. Allowing a focus on both the processes and products of learning.
6. Providing a means for learning materials to be stored and recycled.
7. Encouraging effective communication.
8. Offering channels for feedback and assessment.

9. Avoiding the unnecessary replication of paper-based materials.
10. Saving time, over time.
11. Facilitating exploration and experimentation.
12. Personalising the content of language learning.
13. Working in authentic contexts.
14. Sharing responsibilities.
15. Giving students control of their learning.

There are four important points to make about this list. First, it is not exhaustive and many of the items overlap and can be extended. Second, the items must not be understood as instructions or imperatives. Rather, they represent pedagogic values or aspirations that informed users of IT can consider (depending on local circumstances) when planning its use. Third, the list is not ranked and it is neither feasible nor desirable to include all of the items in a single lesson. Finally, and perhaps most importantly, the strength and consolidation provided by IT in a lesson (or even part of a lesson) is dependent on teacher and learner perceptions. All justifications in this respect are context specific. As a result, what may work in one place at any particular time may not have the same effects in another location at a different curriculum point.

If it is accepted that the benefits of IT in language learning are only realisable in specific contexts, then it is difficult and inappropriate to generalise effects. Yet, in illustrating the nature of learning task design work with IT there might be some advantage in looking at the particular instance of an English language lesson that aims to use IT in an informed way and then attempting to explain its implications for language pedagogy and classroom practice.

ILLUSTRATIVE LESSON

The following lesson outline is the work of two student-teachers, Koh Meng Hoe and See Yian Nee, during an undergraduate course titled, 'Computer Applications in Language and Literature', at the National Institute of Education, Nanyang Technological University, Singapore. The lesson's title is, 'An Introduction to Superlatives' and the target level is Primary 3 (age 9) and above with a class of 30 students. The lesson takes place in a school's Digital Learning Centre that is equipped with 15 computers with Internet access, office applications, movie-editing software, a data projector, whiteboard, video camera, stills camera, printer and scanner. The students also have access to a weighing scale, mini-whiteboards, erasable markers and reflective journals. As a class, the students are familiar with all of the hardware and software in the Centre and can also upload files to a digital drop box, and post and respond to comments on an online forum.

There are four specific instructional objectives for the lesson. By the end of two 1-hour periods of instruction, the students will be able to:

1. Identify and provide at least three superlative adjectives in a meaningful verbal context.
2. Plan, organise and present a written or spoken text using chosen software.
3. Use superlative adjectives correctly and appropriately in project work.
4. Self- and peer-evaluate using a prepared rubric.

Before the lesson, the teacher prepares the following instructional aids:

- A weight record table (Appendix A)

- An electronic slideshow titled, 'Goldilocks and the Three Bears'.
- Story continuations (Appendix B) cut into strips (one set per group).
- A self- and peer-assessment rubric (Appendix C) posted on the class's online forum. Appendix D shows the lesson procedure, stage-by-stage.

FIGURE 2
Goldilocks and the Three Bears, Scene 1 (Used with Permission)

FIGURE 3
Goldilocks and the Three Bears, Scene 2 (Used with Permission)

DISCUSSION

There are numerous 'informed' features embedded in the illustrative lesson on superlatives. The first noteworthy element is that the outline flows purposefully from one stage to the next. It is no accident that various effects are foreseen for different students at different points in the lesson. The contour of the outline is, in fact, easily discerned: teacher-student interactions move from the direct and explicit to the negotiated and constructed. Different means are used to create opportunities, increase the quality of learning experiences and provide variation.

In the 'development' stage, the teacher uses prepared interactive material to introduce the target grammar structures and vocabulary to the class. After this, the students work in groups to complete the story. This not only exposes them to the use of grammar in context, but the medium of presentation affords a certain level of control over the material. At the

same time, the software allows the teacher to check the students' levels of comprehension unobtrusively. Given that the students must share hardware, a potential drawback is turned, quite deftly, into a learning opportunity: now responsibilities must be shared. As the learners begin to take control of the story, and the vocabulary used, their input (agency) is required. According to Mason (1994) it is not the technology but the way in which it is used that ultimately impacts the learner. A good teacher has presence in any medium.

The purpose of the 'project work' is to identify and measure the students' understanding of the lesson but it is deliberately open-ended and underspecified. The flexibility in this stage is attributable to the level of IT incorporation. The teacher creates space for experimentation and diverse perspectives. As the students can choose their end-products, they can personalise the direction and content of their language learning based on their interests and passions. Additionally, the technology enables the possible integration of various modes of representation and media thus emphasizing the increasing multimodal character of contemporary language pedagogy (Jewitt, 2003). Crucially, the learners have opportunities for meaning-making that surpass the traditional boundaries of written language.

One final notable aspect of the use of IT in the lesson is that it provides some flexibility in terms of when and where learning occurs. Particularly, the online forum is a platform that offers teachers "… a unique opportunity to extend their classrooms into cyberspace" (Suler, 2004, p. 395). With suitable guidance and practice, online forums can promote interaction and support learner-centredness. Arguably, once students' interest is aroused, they may participate more actively through online text communication than in classroom-wide discussions where there may well be limited opportunities for equal participation.

In contrast to its merits, the illustrative lesson outline could be improved, especially in the areas of regulating the communicative interactions and possibly at the reflection stage. But as it stands, the lesson demonstrates a perspective rather than a neat, self-contained instructional end in itself. The greatest virtue of the outline is that it allows learners to make choices. This is more than can be said for a worksheet-based lesson where children reproduce target structures accurately but do little else that might be considered productive or creative.

Nevertheless, it is justifiable, I think, for language teachers to ask how to use IT to its fullest potential. An important step towards a new way of working involves accepting that change is a necessary part of living with, and learning from, Net Generation children. Returning to Tapscott (1997, pp. 143-149) there are eight shifts in the roles and qualities of teachers implied by the move from pre-digital to digital age learning (see Table 2).

TABLE 2
Shifts in the Roles and Qualities of Teachers Implied by Digital Age Learning (Adapted from Tapscott, 1997, p. 143)

From	To
Linear, sequential/serial	Hypermedia learning
Instruction	Construction/discovery
Teacher-centred	Learner-centred
Absorbing materials	Learning how to learn
School	Lifelong
One-size-fits-all	Customised
School as torture	School as fun
Teacher as transmitter	Teacher as facilitator

Even though Table 2 presents a series of simple dichotomies, the message in Tapscott's work is clear: in contexts where digital technology is pervasive, teaching (irrespective of the subject or topic) must be interactive, responsive and aligned—so far is possible—to learners' needs. Yet, there is still more.

Learners in the digital age have roles and responsibilities too. The illustrative lesson relies on children doing their part as assessors and guides. To function productively, they need to be well motivated and cooperative. They also have to understand the complexity of learning in a multimodal environment. While I am convinced that all children have the capability to respond positively to new approaches to teaching and learning with technology that is familiar from outside of the classroom, I am also fully aware that the reality on the ground is markedly different from some, if not most, ideals.

CONCLUDING REMARKS

As Sandholtz, Ringstaff and Dwyer (1997) remark in a longstanding book about creating student-centred classrooms with and through IT, teachers are too frequently concerned with matters relating to classroom management and their own (in)adequacy. One reason for this might be that IT is often promoted as a solution but educators are never quite sure what the problem is (cf., Clark, 1994). The upshot is that if IT cannot be controlled then it must be avoided. What, then, is a likely antidote to IT disillusionment?

I contend that using IT in language classrooms involves developing practices that increase learners' productivity but not teacher workload. In closing, based on Towndrow (2004) and Towndrow and Vallance (2004), I recommend four ideas for starting and maintaining a programme of language teacher professional development with IT (see Appendix E). Considered individually, each of these items can bring small rewards. But combined I believe they have the potential to generate more ambitious action plans towards the desired transformation of classroom practices.

This article claims that IT can make language teachers and students more productive and effective but only when its use is informed by practices that maximise what technology has to offer. It is critical that we note that using IT advisedly is not usually predicated on technical expertise, although this might help in some cases. Rather, the ideas presented and discussed here are for non-specialist application. I believe they offer a means for better decision-making and are forward-thinking in terms of possibilities. To reinforce these points, I close with an extended extract from a reflective piece of writing by student-teacher, Koh Meng Hoe. Her words fully express the value of working with IT in an open-minded and informed way:

> During our brainstorming sessions on the ideas for the IT lesson, we realised that it is tough to plan a lesson when we must fulfil certain criteria. It is difficult as we have yet to think of what the best way to teach that concept might be. IT can be introduced in the lesson during or after the planning when the teacher finds it necessary. … After reviewing our lesson … we realised that the learning task we [had] planned [was] a closed one. We then made changes to make it more open in terms of what [the students] would learn, what they would produce and allow negotiation on how they would like to be assessed. This is also related to considering the interests of the students as choices are given to them to work on what they prefer or are more comfortable with.

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REFERENCES

Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization*. Minneapolis: University of Minnesota Press.

Clark, R. E. (1994). Media will never influence learning. *Educational Technology Research and Development*, *42*(2), 21-29.

Collin, S. M. H. (2002). *Dictionary of information technology* (3rd ed.). London: Peter Collin Publishing.

Cummins, J., Brown, K., & Sayers, D. (2007). *Literacy, technology and diversity: Teaching for success in changing times*. Boston: Pearson.

Dewey, J. (1990). *The school and society and the child and the curriculum*. Chicago: The University of Chicago Press.

Dudeney, G. (2000). *The Internet and the language classroom: A practical guide for teachers*. Cambridge: Cambridge University Press.

Gee, J. P. (2004). *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.

Hardisty, D., & Windeatt, S. (1989). *CALL*. Oxford: Oxford University Press.

Hawkins, J. (1996). Dilemmas. In C. Fisher, D. C. Dwyer, & K. Yocam (Eds.), *Education and technology: Reflections on computing in classrooms* (pp. 35-50). San Francisco: Jossey-Bass Publishers.

Higgins, J. (1998). *Language, learners and computers: Human intelligence and artificial unintelligence*. London and New York: Longman.

Higgins, J., & Johns, T. (1984). *Computers in language learning*. London and Glasgow: Collins ELT.

Jewitt, C. (2003). Re-thinking assessment: Multimodality, literacy and computer-mediated learning. *Assessment in Education: Principles, Policy & Practice*, *10*(1), 83-102.

Jones, C., & Fortescue, S. (1987). *Using computers in the language classroom*. London and New York: Longman.

Mason, R. (1994). *Using communications media in open and flexible learning*. London: Kogan Page.

McLuhan, M., Hutchon, K., & McLuhan, E. (1978). The laws of the media. *The English Journal, 67*(8), 92-94.

McLuhan, M., & McLuhan, E. (1988). *Laws of media: The new science*. Toronto: University of Toronto Press.

Negroponte, N. (1995). *Being digital*. New York: Vintage Books.

Pennington, M. C. (1996). The power of the computer in language education. In M. C. Pennington (Ed.), *The power of CALL* (pp. 1-14). Houston: Athelstan.

Postman, N. (1993). *Technopoly: The surrender of culture to technology*. New York: Vintage Books.

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1-6. Retrieved October 11, 2012, from www.scribd.com/doc/9799/Prensky-Digital-Natives-Digital-Immigrants-Part1

Prensky, M. (2010). *Teaching digital natives: Partnering for real learning*. Thousand Oaks, CA: Corwin.

Reivich, K., & Shatté, A. (2003). *The resilience factor: 7 keys to finding your inner strength and overcoming life's hurdles*. New York: Broadway Books.

Richards, J. C., & Rogers, T. (1991). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.

Sandholtz, J. M., Ringstaff, C., & Dwyer, D. C. (1997). *Teaching with technology: Creating student-centred classrooms*. New York, Teachers College Press.

Skinner, B. F. (1957). *Verbal behaviour*. New York: Appleton-Century-Crofts.

Sperling, D. (1997). *The Internet guide for English language teachers.* New Jersey: Prentice Hall Regents.

Stevens, V. (1992). Humanism and CALL: A coming of age. In V. Stevens & M. C. Pennington (Eds.), *Computers in applied linguistics* (pp. 11-38). Clevedon: Multilingual Matters.

Suler, J. (2004). In class and online: Using discussion boards in teaching. *CyberPsychology & Behavior*, *7*(4), 395-401.

Tapscott, D. (1997). *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.

Towndrow, P. A. (2004). What English language teachers from the People's Republic of China find surprising about information technology: Thoughts on how to address the need for change. *Asia Pacific Journal of Education, 24*(1), 105-116.

Towndrow, P. A. & Vallance, M. (2004). *Using IT in the language classroom: A guide for teachers and students in Asia* (3rd ed.). Singapore: Longman.

Warschauer, M. (2004). Technological change and the future of CALL. In S. Fotos & C. Brown (Eds.), *New perspectives on CALL for second language classrooms* (pp. 15-26). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Widdowson, H. G. (1978). *Teaching language as communication*. Oxford: Oxford University Press.

Wikipedia (2012). [The] Internet. Downloaded, October 17, 2012, from: http://en.wikipedia.org/wiki/Internet

Windeatt, S., Hardisty, D., & Eastment, D. (2000). *The Internet*. Oxford: Oxford University Press.

APPENDIX A
Weight Record Table (Used with Permission)

Weight Record Table

Student A	Student B	Student C

Student ___ is the _____.
Student ___ is the _____.

APPENDIX B
'Goldilocks and the Three Bears' Story Continuations (used with permission)

There was a table laid with three bowls of steaming porridge. Goldilocks was hungry so she tried the least colourful bowl. The porridge was tasty so she ate it all.
Goldilocks was tired so she decided to sit down. She then sat on the highest chair and it was very comfortable. Unfortunately, she fell off the chair because it was too high for her.
There were three paintings on the wall. Goldilocks threw the longest painting into the dirtiest bin. She felt that this was the worst painting ever.
Goldilocks walked to the right of the room and found three beds. She tried lying on all three beds and decided to sleep on the softest white one.

APPENDIX C
Self- and Peer-Assessment Rubric for Group Work Projects (Used with Permission)

Marks	4	3	3	1
Content	Fully relevant and well-developed ideas. Very interesting.	Adequately relevant and interesting but ideas are not fully developed.	Fairly relevant but ideas are not developed and interesting.	Ideas may be relevant but are often vaguely expressed. Little or no development.
Spelling and Grammar	Presentation has no misspellings or grammatical errors.	Presentation has 1-2 misspellings but no grammatical errors.	Presentation has 1-2 grammatical errors but no misspellings.	Presentation has more than 2 grammatical and/or spelling errors.
Creativity	Presentation shows considerable originality and inventiveness. The content and ideas are presented in a unique and interesting way.	Presentation shows some originality and inventiveness. The content and ideas are presented in an interesting way.	Presentation shows an attempt at originality and inventiveness.	Presentation is a rehash of other people's ideas and/or graphics and shows very little attempt at original thought.
Overall Presentation	Overall presentation is appropriate and organised.	Overall presentation is appropriate.	Overall presentation can be improved.	Overall presentation is inappropriate and disorganised.

1. Based on the rubric, what marks would you give your group? Why?

Content	
Spelling and Grammar	
Creativity	
Overall Presentation	

2. Use these questions to reflect on your project:
   - What did you like about it?
   - What are the strengths of the project?
   - How could you improve the project?
   - What have you learnt from this project?

Next, comment on your friends' project by repeating steps 1 and 2. Post both of your assessments on the online forum.

APPENDIX D
Illustrative Lesson Outline (Used with Permission)

Stage	
1.	**Tuning-in**
1.1	Invite 3 students to weigh themselves. Ask another 3 students to record the results on the table hung on the whiteboard. (Appendix A)
1.2	Elicit analysis of the data collected through question-and-answer exchanges. Ask the class to compare the weights of students: A and B; B and C; and A and C. Which student is heavier in each case?
1.3	Students write their answers on their mini-whiteboards and lift them to show the class.
1.4	Introduce and explain the superlative adjectives: 'heaviest' and 'lightest'. Instruct the class to apply these words to students A, B and C by completing the model sentence pattern: 'Student ___ is the _____. (Appendix A)
1.5	Consolidate tuning-in by pointing out that we use superlatives to compare somebody or something with the whole group to which he/she/it belongs.
2.	**Development**
2.1	Divide class into groups of 4 (2 computers per group).
2.2	Tell groups to open the presentation, 'Goldilocks and the three bears' on their computers (Scene 1, Figure 2).
2.3	Tell the class the beginning of the story: "Once upon a time, there was a little girl named Goldilocks who lived on the edge of a great forest. One morning she ran off into the forest and quickly got lost. She saw three strange cottages and decided to go into the smallest one".
2.4	Instruct the students to click on the smallest cottage to enter the next scene. Check all students have done this correctly.
2.5	Individual group members now take turns to continue the story by reading aloud the sentences printed on strips of paper (Appendix B). The other members in the group follow by clicking on Goldilocks and the other images on their computer screens (Scene 2, Figure 3). Monitor students' comprehension by walking around the room.
2.6	When everyone is finished, continue with the next part of the story: "Goldilocks didn't know the cottage belonged to three bears and that they were on their way home. When they eventually came in they found Goldilocks who was very frightened".
2.7	Ask students to recall the superlatives used in the story (including the strips of paper). Students write whatever they can on their mini-whiteboards. Point out the following rules: One-syllable adjectives usually have superlative forms ending in '-est'. Some two-syllable words are also like this but others use 'most' or 'least'. Three-syllable adjectives use most and least.
2.8	Instruct students to think of an ending to the story to share in their groups. Monitor language use and provide appropriate feedback.
3.	**Personalisation**
3.1	Tell the students they are now going to use superlatives based on their own experiences.

3.2	Pair students and assign roles: Student A recounts a recent personal experience for a maximum time limit of two minutes. Student B writes down all the superlatives used.
3.3	Students switch roles.
3.4	Pairs consolidate and correct their vocabulary lists using a dictionary, if necessary.
4.	**Project work**
4.1	The students continue working in pairs.
4.2	Explain the details of the project that is to be completed outside of class over the next week. The students must produce a written and/or spoken text featuring superlatives. They can use their previously written vocabulary lists and add any other words if they want. Provide suggestions for text-types if the students are short of ideas. Students upload their final texts to the digital drop box.
4.3	Students begin discussing their ideas.
4.4	Facilitate decision-making and guide as necessary ensuring quality work is done.
4.5	At the end of the project, the students self- and peer assess their work using the prepared rubric. (Appendix C)
5.	**Reflections**
5.1	Students reflect on their learning using the following prompts: - Write three things you have learnt from the lesson/project. - Write two things you think are important for your future learning. - Write one thing you want to share with your classmates.
5.2	Collect reflective journals and read after class. Respond appropriately.

APPENDIX E
Four Ideas for Starting and Maintaining Language Teacher Professional Development with IT

s/n	Idea	Rationale
1.	Start small and grow slowly.	Success builds confidence. Therefore, if IT is used it should be done to accomplish small, manageable tasks at the beginning. For example, look in the 'Documents' folder on your computer's hard disk. Try classifying your files and placing them in appropriately named folders. Then think about how the skills you used in maintaining an orderly filing system can be the starting point for other commendable information science practices in your classroom.
2.	Explore and exploit IT resources in the classroom.	Given the exposure learners have to IT outside of the classroom, it would be a great waste not to apply this learning in the school environment (cf., Dewey, 1990). For example, Gee (2004) argues forcibly that children's knowledge and experiences of playing video and computer-based games could inform classroom practices. In particular, when played actively and critically, "[computer games] situate meaning in multimodal space through embodied experiences to solve problems and reflect on the intricacies of the design of imagined worlds …" (p. 48). If only language teachers could do the same thing!
3.	Share.	Resilient people galvanise themselves to tackle problems thoughtfully (Reivich & Shatté, 2003). One way for teachers to guard against adversity is to share the digital materials they create. Items such as: charts, posters, images, photographs and texts can be placed in password protected shared folders on a school's intranet or cloud device. Another possibility is to share lesson plans on a portal that have been rated for popularity and successful application. Users will be allowed to download a second lesson plan once they have used and rated a previous one.
4.	Mentor and partner.	Another way to overcome the limitations of individual effort and to increase IT usage at the same time is to offer to mentor or partner a colleague. Some teachers may not use IT in their work because of a lack of confidence or

		expertise in the use of hardware and/or software. A way to rise above this impasse is to organise 'IT consultancies' where colleagues share what they know and can do in informal 'show and tell' sessions at agreed times. Sharing reduces uncertainty and builds solidarity. It is better to be united in ignorance than to be separated by expertise.