Annual Report of Iwate Medical University
School of Liberal Arts and Sciences
No. 40(2005), 55-62.

Quest-based Learning: Embracing Computers in the Textbook-based EFL Classroom

James Hobbs

(Received October 20, 2005)

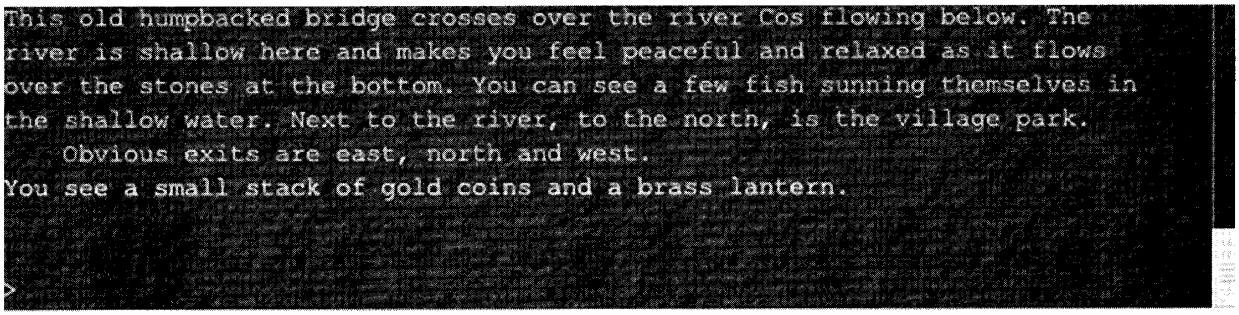
In some ways computers have revolutionized the study of foreign languages: The Internet offers a wealth of resources for both teachers and learners, email offers a cheap and convenient way to communicate with people anywhere in the world, computer-based tests and exercises offer instant scores and feedback, and so on. However, analysis of the computer-based ELT materials currently offered by major publishers suggests that these are most likely to either a) eliminate teacher-student and student-student interaction almost entirely, replacing them with what is essentially a self-study package, or b) take the place of the optional student workbook, tagged on to a textbook-based course and offering supplementary drills, tests, and exercises. It is thus not surprising that many teachers feel no particular need to incorporate computers into their teaching, or that many remain unconvinced that computers can add much to the teacher-led language classroom without simultaneously taking much away. This paper discusses how the underlying conflict between textbooks and computer-based packages served as the driving force behind the creation of *Costello: Quest-based Learning* (Cohen & Hobbs, 2005), a package that combines a paper textbook with a virtual reality computer game for language learners. The software is perhaps best conceptualized as a virtual graded reader, engaging learners in a series of adventure stories at the pre-intermediate to intermediate level, but with the important difference that the way the story develops, and hence the text students see, varies according to how the reader reacts at each stage of the story. While the software focuses attention entirely on meaning, the textbook is used as the medium for presenting form-focused activities based on the language in the stories, and as a springboard for classroom activities that develop the ideas and concepts that underpin the stories. Arguably, this represents a radical and innovative approach, in which the computer adds an extra dimension to the learning experience, but does not stifle the human interaction that many regard as a vital ingredient in the language classroom.

The history of *Costello*

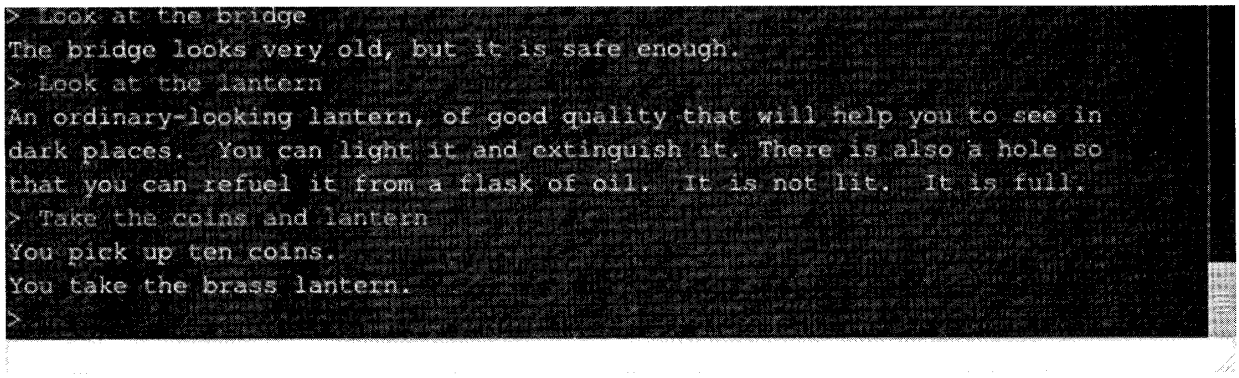
Costello is the name of a virtual reality language learning computer game developed by Adrian Cohen and used as a supplementary reading/ writing resource at Iwate Prefectural University, 1998~2005 (Cohen, 2000, 2001). The program is entirely text based, and players progress by completing the various *quests* they encounter in the *Costello* world. For inexperienced players (i.e.,

Department of English, School of Liberal Arts and Sciences, Iwate Medical University

those who have not yet collected many *quest points*) these typically consist of performing simple errands for speaking characters encountered in the game, such as delivering something to someone, finding something, and so on. A typical text window looks like this:



In order, the text tells the player 1) where they are and what they can see (in this case they are on a bridge and can see the river below), 2) which directions they can move in (in this case east, north, or west), and 3) what objects or people they can interact with here (in this case some coins and a lantern). In addition to reading the description, players can also hear it being read by a native speaker. Having read/ listened to this text the player then enters a suitable command in the text box at the bottom of the window. This may be, for example, a command to move to a new area (e.g., "Go east," "Go north."), an instruction to look more carefully at something (e.g., "Look at the bridge."), or an instruction to interact with a person or object (e.g., "Take the lantern."). In the above example, a player might, for example, choose to "Look at the bridge," and then "Look at the lantern," before deciding to "Take the coins and lantern." These typed commands, and the computer's responses, would appear as follows:



The player might then move on to explore a new area, but now with the ability to see in dark places (by lighting the lantern), or to buy any items for sale that are encountered (using the gold coins), both of which will be necessary at various stages of particular quests.

Although the program has been successfully tested elsewhere (Gromik, 2005), it was originally intended primarily as a teaching tool for its creator, who had his students explore the *Costello* world outside class time, and submit written assignments for homework, reporting on their quest experiences. If other teachers used it as part of their classes, they would doubtless experience certain difficulties:

—The *Costello* world is truly vast, with over 10,000 places to visit, over 80 quests to complete, and hundreds of commands to master. It requires a considerable investment of time and effort for a teacher to become sufficiently familiar with the game so as to be able to "teach" it.

—Similarly, as the game is so large, it is difficult for a teacher to set a clear target for learners unless the game is a central feature of a year-long course. To use the game simply as a supplementary resource for a short course would be akin to reading only the first chapter of a novel, and would understandably lead learners to question the value of using it at all.

—As the game itself simply provides language input in a way comparable to an extensive reading program, teachers would have to think very carefully about exactly how to incorporate it into a course, and how to combine it with other teaching materials.

At the same time, though, there are many teachers who quite simply have never before considered using computers in the classroom anyway. This is the subject of the next section.

Teacher resistance to computers in the classroom

Given that institutions now typically offer students easy access to computers, it is surprising that many teachers who use computers in their daily lives are still reluctant to allow computers into the language classroom. However, there are a number of possible explanations for this.

The most obvious reason is resistance to change. That is, the vast majority of teachers have been trained to teach using books, blackboards, and cassette tapes. Most probably feel comfortable doing so, and perhaps see little or no reason to accommodate computers in a way that will require a radical reappraisal of patterns of classroom interaction. For many such teachers, the switch from cassettes and video tapes to CDs and DVDs is perhaps more than enough technological innovation for one decade.

A look at the 2005 catalogue of any major ELT publisher will confirm that paper textbooks are indeed still very much the norm, and computer-based materials still very much the exception, rarely filling more than a page or two of a hundred-page catalogue. However, this argument can also be turned on its head: The reluctance of teachers to embrace computers in their teaching may partly reflect the failure of major publishers to offer a range of computer-based packages that are adaptable to a traditional teacher-fronted, interaction-based class. Indeed, the majority of computer-based materials currently available can be broadly divided into three categories:

1. All-inclusive CD-Rom packages such as the *New Dynamic English* series (www.dyned.com), in which integrated video and speech recognition software combine with on-screen text to create a total learning environment in which little or no interaction between the teacher and learners is required.
2. CD-Roms such as those offered with the *Touchstone* series (McCarthy, McCarten, and Sandiford, 2005), which essentially take the place of the traditional student workbook, offering opportunities for further practice outside class, but are not an essential component of the course.
3. Resource books and dictionaries on CD-Rom that, while very useful, obviously are not alternatives to a class textbook.

Packages such as *New Dynamic English* may be technically impressive and visually stunning, and may indeed be effective learning tools, but clearly such packages are primarily designed to function as a self-study resource, and are not what most teachers are looking for as an alternative to a textbook-based class; few teachers would see the logic behind gathering a group of learners in the same room and then denying them any opportunity to interact with each other, and few would be content to have the software do their teaching for them and see their own role in the classroom reduced to that of a passive observer and, when necessary, technical troubleshooter. Arguably what is gained (learner autonomy, content and pace matched to individual learners) is outweighed by what is lost (teacher-learner and learner-learner interaction).

CD-Roms such as those supplied with *Touchstone*, meanwhile, are essentially just a new medium for presenting the kinds of review and practice activities that have always been available to learners through traditional workbooks and audio CDs/cassettes. My own experience of using a textbook with a self-study CD-Rom (Chabner, 2003) suggests that the novelty factor soon wears off and that many learners in fact prefer to do traditional drills and tests with pen and paper. In short, it seems fair to say that in such materials the innovation is generally in the mode of delivery, not in the actual content.

Viewed in this light, the fact that many teachers do not yet feel moved to introduce computers into the classroom is perhaps not surprising. Perhaps what many teachers want is a teaching package in which the textbook and CD-Rom do not compete for attention, but instead complement each other, each offering something that the other can't.

***Quest-based learning*: Computer-aided learning in the textbook-based course.**

Modifying the game

The fundamental concept behind *Costello: Quest-based Learning* is that of a dual-media package that exploits the potential of computers within the traditional framework of a textbook-based course; in other words, adding a new dimension to the learning experience, but leaving the textbook to do what textbooks do best. Creating the student book/ CD-Rom package began with reducing the online game to a CD-Rom version that can be completed in a one-semester course, and that can be tied directly to textbook-based activities. This involved a number of modifications:

- The single, vast *Costello* world was replaced with eight newly created, self-enclosed quest areas, such that each computer session can have a clear beginning, a clear goal, and a clear end.
- These eight areas were designed to place players in a range of practical settings associated with a range of common vocabulary: a college campus, a busy shopping street, an office, and so on.
- The quests themselves are mostly based on practical, real-life activities: seeing a doctor when sick, collecting information about language courses, carrying out errands in an office, and so on.
- Whereas the language in the original game is generally allowed to roam wherever the game takes it (which is often into the fantasy (and hence low-frequency vocabulary) realm of fire-breathing dragons, magic potions, and gallant knights in shining armour), the textbook version is based on a far more tightly controlled lower intermediate/ intermediate syllabus that provides extensive exposure to

common and readily teachable structures, collocations, vocabulary, and so on.

Software and textbook as partners

The role of the software is to expose learners to useful language at the target level in a stimulating, meaning-focused adventure game format. This is not just a matter of presenting story text on a computer screen instead of on the printed pages of a book. Firstly, it gives learners a degree of control over how the story unfolds, in a way that is not possible in printed text, because the text appears in short chunks typically 1~10 lines in length, each chunk generated in response to the last command typed by the player. Secondly, the interactive, goal-oriented nature of the game keeps learners focused on meaning, and makes it impossible for attention to wander in the way that it can when reading a book. We have all had the experience of pausing while reading because we suddenly realize that we have lost track of the unfolding story; this is something that simply cannot happen in *Costello*.

The textbook, meanwhile, creates ample opportunities for teacher-guided language focus and learner-learner interaction. It prepares learners for each *quest* by setting the scene, provides tasks that guide learners while they do the quests, and offers an abundance of post-quest activities focusing on the language and ideas in the quests. Significantly, the package is designed so that the teacher, not the course writers, can decide how much classroom time will be spent using computers. Possible approaches involve:

—Alternating computer lab lessons in which learners do the quests with textbook-based lessons that focus on human interaction.
—Having learners begin each quest in class, so as to "get a feel" for it, and complete it outside class.
—Have students complete all quests in their own time, and use only the textbook in class.

Language syllabus

The language syllabus underlying the course seeks to ensure that the input is comprehensible to learners, and consists of language that can be considered useful, but is not tied to a pre-established list of specific linguistic items deemed to represent learners' "needs".

Traditionally, the process of creating a language syllabus begins with an assessment of learners' needs. This is fine, so long as it as it is possible to identify those needs. In some cases we are fortunate enough to be able to create a very clear picture of learner needs and design course materials accordingly. For example, I spend the majority of my teaching time with medical students, who have clearly identifiable needs related to clearly identifiable language. Accordingly, my teaching in these classes is based on a very tight syllabus consisting mainly of prefixes, word roots, and suffixes common in medical terminology, and words, collocations, and phrases common in research paper abstracts and case reports. *Costello: Quest-based Learning* was not written with such students in mind.

On the other hand, there are many college English classes in Japan in which learner needs are far from clear. Students studying quite different majors often find themselves in the same class, classes often include learners of a wide range of levels and motivations, and English classes are often elective,

implying that whatever "needs" they cater to, these cannot be so urgent that it wouldn't matter if the students took an entirely different class! Moreover, even if a class does include students at a similar level, studying the same major, is this enough justification to begin defining their "needs" in terms as specific as a particular grammar point or a particular list of vocabulary? A similar point was made by a plenary speaker at a recent conference:

> What is your students' motivation for studying English? Do they KNOW they want to go into international business, for example? And is it our job as language teachers to prepare them for an experience that may or may not take place at some unspecified time in the future?
>
> (Barduhn, 2004)

Put another way, in a teaching package aimed at a wide range of college students in a range of international settings, is it appropriate to draw up a detailed language syllabus before any of the core content has actually been written? Is this not just a recipe for course content consisting of contrived texts created for the sole purpose of illustrating particular language points, with no way of knowing whether these language points actually reflect students' needs? Is it not better for the writer to strike a balance; to avoid content that is clearly inappropriate (we would probably not choose to read poetry with a class of engineering students, nor could we expect to have much success teaching essay writing to a group of beginners) while at the same time refusing to become a slave to a prescribed list of grammar points, words, and collocations in cases where, if we are to be honest, learner needs simply cannot be predicted with such a level of precision?

With *Costello: Quest-based Learning* the decision was taken to largely allow content to determine the language syllabus, rather than vice-versa, partly reflecting an approach adopted in earlier research (Hobbs, 2005). The text in the quests was created through a 4-stage process:

1. ***Plan*** scenarios expected to generate exposure to common, everyday language: an office, a college campus, etc.
2. ***Create*** quest stories, focusing mainly on interesting content. Care was taken to keep the language within the target range of difficulty, but content was not contrived to accommodate specific target structures, functions, and vocabulary.
3. ***Analyze*** the scripts for recurring features. For example, one quest contained many lines giving advice, one featured many requests, another contained a range of passive constructions, etc.
4. ***Modify*** quests to increase exposure to those features. After recurring features were identified, quests were modified to increase exposure to these features, and these became the subject of language focus activities in the textbook.

Structure of textbook units

Each unit of the textbook is designed to promote a balance of reading (quests), listening (quests, classroom discussion), speaking (pair interviews, group discussions), and writing (note-taking, typing

of quest commands, end-of-unit summaries). The structure of units is influenced by aspects of the task-based learning framework proposed by Willis (1996), in particular the insistence that learners first process language for meaning before they focus explicitly on form. Each unit includes five sections:

1. ***Before you explore:*** warm-up activities to introduce words and phrases from the quest. These include both single vocabulary items, and common conversational expressions.
2. ***The quest:*** meaning-focused tasks to be completed as learners explore the quest area. For example, in Unit 2 learners walk through a town from south to north, and as they do so they must note the differences as compared with the 10-year-old map printed in their textbook. For example, an area marked as empty fields is now a housing estate, a farm has become a golf course, and so on. These textbook tasks ensure that learners pay attention to detail at all stages of the quest, and do not simply attempt to complete the quest in the shortest possible time.
3. ***After the quest:*** opinion/recall tasks based on the quest. These include interviews with a partner to discuss the quest experience, recall tasks based on in-quest observation, and so on. In some cases, learners may repeat quests in order to check their answers.
4. ***Language focus:*** a closer look at structures, functions, and other language features encountered in the quest. For example, one quest features various patterns for giving advice ("You should...," "You'd better...," etc.), another looks at *should* and *ought to* used to state expectations ("This should work."), another focuses on discourse markers common in spoken interaction ("You know," "You see," "Well," etc.), and so on.
5. ***Summary:*** a written report of opinions about the quest, which would normally be completed for homework.

Future possibilities

Creating computer-based materials is far more time-consuming that creating a stand-alone textbook. Moreover, while a few typing errors pose no particular problem in a book, a single mistake in a line of computer code can be sufficient to prevent the program from functioning properly. For this reason, the testing and fine-tuning stages of production take on particular importance, and the step from the initial idea to final production of a reliable product is more of a giant leap. However, given sufficient interest from teachers, and sufficient resources, there are several possible avenues for future development. Most obviously, both lower- and higher-level packages could be developed to complement the current lower-intermediate/ intermediate package. At the same time, alternative approaches to syllabus design are possible. There is no reason why the writers could not create a *Costello*-based package following an explicitly task-based syllabus, an overtly grammatical syllabus, or a lexical syllabus. The current focus on reading could be adjusted to provide more listening-only input. Another possibility is custom-built ESP packages in which quests created by a teacher at a particular institution are programmed into *Costello*.

Conclusion

It remains to be seen just how receptive teachers and learners will be to such a style of teaching and learning, and feedback from the classroom will undoubtedly lead to suggestions for improvements and alterations. It is already anticipated that some will find the simple interface a little disappointing, and this is one area in which radical changes are already in the pipeline. However, *Costello: Quest-based Learning* already represents an honest attempt to make computers and textbooks not rivals, and not master and servant, but equal partners in a balanced package that adds an extra dimension to the classroom, but ensures that human interaction is still at the core of the learning experience.

References

Barduhn, S. (2004, November). *Developing cross-cultural awareness in monolingual classrooms.* Plenary lecture delivered at JALT2004, Nara, Japan.

Chabner, D. (2003). *Medical terminology: A short course.* St. Louis, MO: W. B. Saunders.

Cohen, A., & Hobbs, J. (2005). *Costello: Quest-based learning.* Manchester, UK: Costello Publications.

Cohen, A. (2000). Costello: Promoting second language practice and acquisition in a text-based virtual reality game.『言語と文化』第2号　岩手県立大学言語文化教育研究センター.

Cohen, A. (2001). Costello: Ongoing experiments in an Internet virtual reality.『言語と文化』第3号 岩手県立大学言語文化教育研究センター.

Gromik, N. (2005). Review: Costello—English through imagination. *Teaching English as a Second or Foreign Language, 8*(4). Retrieved 16th October, 2005, from <http://writing.berkeley.edu/TESL-EJ/ej32/toc.html>.

Hobbs, J. (2005). Interactive lexical phrases in pair interview tasks. In C. Edwards & J. Willis (Eds.), *Teachers exploring tasks in English language teaching* (pp. 143-156). Basingstoke, UK: Palgrave MacMillan.

McCarthy, M., McCarten, J., & Sandiford, H. (2005). *Touchstone* (student's books 1-4 plus CD-Rom). Cambridge, UK: Cambridge University Press.

Willis, J. (1996). *A framework for task-based learning.* Harlow, UK: Longman.