From parrots to puppet masters: An online role-playing tool for fostering language acquisition

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Abstract

Insufficient exposure to English as a second language, disparities in quality of education and concentration on test-taking strategies mean that language learners sometimes leave school able to do little more than parrot second language formulae. Many learners, especially in monolingual societies such as Hong Kong, do not have sufficient opportunities outside the classroom to use the language.

The partial solution that this paper proposes is a new Web-based system for the construction, delivery and management of online language courses. The design principles of this system attempt to meet the needs of a wide range of learner proficiencies and interests through interactions easily created by the instructor, involving animation, speech and other technologies. The purpose of this system is to give learners access to quality instruction and engagement with the languages they are learning at a distance, on demand, and on a life-long basis, as well as to provide teachers with a tool to conduct such online courses. This paper will illustrate an online course, driven by this system, in English as a Second/Foreign Language (ESL/EFL), based on research into the needs of Chinese-speaking learners. A role-playing activity will be highlighted that encourages the appropriate use of language in social and business contexts, and allows students to practise and demonstrate facility with basic grammar, vocabulary and conversational language devices, as well as ‘higher-order’ pragmatic linguistic skills.

Keywords

English as a second language, online learning, distance education, multimedia, role-playing.

A problem in language education

The need to educate a large and varied population in English as a lingua franca in South-East Asia has given rise to a number of problems, which are in a general sense also faced in the teaching and learning of other types of knowledge and skills.

One of the most frequently discussed problems is the unhappy force-fed pedagogy in which many teachers and students find themselves trapped. Educational theorists (e.g. Paris 1995) generally believe the teaching and learning practices based on ‘teaching to the exam’, which are common in many Hong Kong public and private institutions, dampen the desire and ability to learn. However, because of the face validity that norm-referenced standardised assessment promises, these practices often dominate the curriculum. While this problem is most keenly felt at primary (!) and secondary levels, even tertiary education is not free of it.
One of the shortcomings of these practices is that they habitually result in students merely learning how to parrot formulae. In the case of second language learning, stock phrases taught at school are often made to substitute for grammatical and communicative competence in the target language (Milton 2001). This practice is not always the fault of the teachers, who are often themselves victims of the pressure to teach for short-term gains.

Delivery of instruction over the Internet, which could potentially assist in resolving this situation, is instead often trivialised or forced to serve the same dehumanising educational models.

One proposal for dealing with the problem

The author was commissioned to produce online workplace English courses for professionals, and bridging courses for secondary school leavers who have been out of school for a number of years and who wish to enrol in tertiary courses. These students are mainly Cantonese and Putonghua speakers at a wide range of English proficiency levels, requiring a broad array of receptive and productive English skills.

It was not immediately apparent how current multimedia technologies could be employed to develop and deliver high-level interactive online language learning content. Despite the Web's potential to provide courses on demand, most content delivery systems offer an unsatisfactory range of activity types and learning options for dynamic language learning. Even relatively basic logistic problems are sometimes not adequately addressed in the courses offered on current systems.

It seems reasonable that a development tool should assist materials developers and instructors (who often have limited time and resources) to create engaging and meaningful communicative, collaborative and problem-solving activities. The courses created with this tool should follow generally agreed educational principles, and pressing logistic needs, viz.:

- to appeal to a wide range of learner proficiencies and interests;
- to motivate low-proficiency students, who often suffer from low self-esteem, to engage in high-level interaction, while also enabling a transparent system of student and teacher accountability;
- to provide quality, individualised instruction to a large number of varied learners ‘on the fly’;
- to ensure a coherent, planned and progressive curriculum, and the transmission of core information, while also providing opportunities for self-discovery, problem-solving, participation and collaboration, creativity and the pursuit of individual learning paths (i.e. to aim at the type of quality assurance outlined by Alley & Jansak 2001);
- to free, enable and encourage the teacher to act more often as a mentor, and less often as a pedagogue;
- to integrate intrinsic, criterion-referenced and performance-oriented formative assessment into the learning process, thereby minimising the need for extrinsic, norm-referenced summative assessment;
- to provide quick and reliable reporting to the instructor, and to allow for easy, consistent grading, and also effective and quick feedback to learners; and
- to allow assessment of the content and methodologies by the students (e.g. through online surveys).

It is also, of course, important that the system allows for the specific pedagogical needs of language courses. This means implementing opportunities for students, who may have little perceived need or chance to use the target language in their daily lives, to gain accuracy and fluency in all
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language skill areas. This includes authentic listening and speaking activities (e.g. a mechanism for listening to and recording simulated telephone conversations for study and assessment), as well as writing and reading activities – e.g. vocabulary acquisition aided by an online lexical database, and access to a range of online reference and look-up tools: dictionaries, encyclopedias, thesauruses and concordancing programs (Milton 1999).

Internet technologies potentially allow for a highly interactive educational model, e.g. through retrieval of online data, as well as by enhanced communication among students and with the instructor. However, while access to expert support is important, it is both pedagogically and economically counter-productive to base online courses entirely on a teacher-led model. In the absence of reliable, affordable and widely available Artificial Intelligence systems for human language acquisition and production (e.g. natural language parsing), this dilemma requires the careful preparation of objectively-scored activities – ideally aimed at ‘higher-order’ outcomes (cf. Haladyna 1997). These activities, content and technologies must also of course be sufficient and appropriate to meet the learners’ needs and learning styles, which in this case are extremely varied.

More importantly, effective online language courses require the development of collaborative activities that make communicative use of the language the responsibility of the students themselves. As most language teachers know, a well-organised learner-centred curriculum does not reduce the role of the instructor, but rather makes possible more effective mentoring of students. In any event, students in an online environment normally produce far more language (written and spoken in this case) than in a traditional class (Selfe & Cooper 1990; Gu, this volume), and it is futile for an instructor to attempt detailed assessment for all student production.

Several currently available course delivery systems were evaluated, and while all permit basic information delivery and assessment, none applied the particular mechanisms for language learning suggested above. Also, most systems leave much to be desired with respect to the ease with which content can be authored, the degree to which individual learners can be accommodated and social interaction encouraged. Internet technologies continue to make available new expanded forms of communication and participation, but these new technologies often take considerable time to be integrated into commercial course delivery systems, and most systems do not allow new technologies to be easily incorporated.

It was decided that database-driven Internet technologies have matured to the extent that it is feasible to develop an original, customisable Web system that can be used to create, deliver and manage interactive, individualised online content.

Other parameters set for this system were that it must allow courses to be undertaken through a series of sequenced activities and units: learners are generally held accountable for completing a ‘unit’ within a set period, but may elect a different sequence from that recommended. It must allow for streaming, so that more or less proficient and independent learners, or learners with different academic or job-related needs, can pursue different learning paths and activities within the same course. It must allow the creation of conventional ‘objective’ activities (i.e. activities that can be automatically graded, such as multiple choice, gap fill, drag-and-drop, matching etc.). Less conventionally, it must also allow the creation of open-ended activities beyond standard essay submission forms and threaded text discussions – for example, sequenced access by learners (via ‘Voice over Internet Protocol’ – VOIP technologies) to asynchronous and synchronous voice discussion Web boards. The remainder of this paper illustrates yet another, even less conventional open-ended activity type implemented in an online English course currently driven by this system: a tool that learners can use to create and post role-plays on the Web.
**Online role-plays**

Education is an admirable thing. But it is well to remember from time to time that nothing that is worth knowing can be taught. (Oscar Wilde)

While not ordinarily negating the role of the instructor, most academics accept that ‘higher’ levels of learning, such as ‘critical thinking’, are not easily taught or assessed, but are the preferred outcomes of the educational process. There is constant concern about whether universities are producing students capable of achieving the higher-order learning outcomes listed in Bloom’s taxonomy of educational objectives (i.e. recall $\rightarrow$ comprehension $\rightarrow$ application $\rightarrow$ analysis $\rightarrow$ synthesis $\rightarrow$ evaluation) (Bloom & Krathwohl 1956). One term often used by linguists to describe advanced communicative proficiency is *pragmatic competence*, which includes the ability to evaluate critically what is said or written and to respond in a culturally appropriate manner (at tertiary level, the ‘language culture’ is usually defined by international social, academic or professional norms).

One way such outcomes have been encouraged is through role-playing activities, whether face-to-face or at a distance. These are used in many disciplines, including such unlikely subjects as Accounting (e.g. Atrill et al. 1994), and several online projects have emerged that use ‘virtual worlds’ (e.g. MUDs, MOOs, etc.) in simulations of business or academic projects. The benefits of role-playing for generalised educational settings are detailed in Jones (1985), and specifically for language learning in Ladousse (1987), Crookall & Oxford (1990) and Bambrough (1994).

The course delivery system outlined above incorporates a role-playing activity. Students use an online ‘scripting tool’ (see Figure 1) to manipulate animated characters on screen, assign them movements and gestures (including some body language), develop narrative lines, and write dialogue that is synthesised and ‘spoken’ by the characters, whose mouths move synchronously with the dialogue.

Students can listen to their text (or any other text on the Web page) rendered with standard American or British synthesised pronunciation. The synthesised suprasegmentals (e.g. stress, rhythm and intonation) are not entirely human (the voice synthesis can be replaced by a recording of a human voice), but students rarely complain about the quality of the synthetic voices. They do report finding the relatively high accuracy in pronunciation useful. The technology that runs the animated characters (*Microsoft Agent*) was originally developed to enhance the human-computer interface by giving it a social dimension. Figures 1, 2 and 3 illustrate how a play is written, made accessible to peers, and how it appears when enacted in the ‘theatre’. 
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Figure 1: A Web form enabling the creation and publication of plays on the Web; students design the script by selecting characters, assigning movements and gestures and writing dialogue, based on business or social contexts, language functions, structures and texts.

Figure 2: A list of role-plays written by students for a unit in the Online English course. The plays are rated (1–5 stars) and commented on by fellow students.

Figure 3: A shot of a student’s animated role-play, showing ‘MS agents’ enacting a dialogue, which can be delivered via text balloons, and either synthesised/recorded speech.
This activity has the benefit of allowing students to script and edit conversational dialogue, and allowing the instructor (who has access to the written script) to supply detailed written feedback on the accuracy, fluency and effectiveness of their dialogues. Students also have opportunities for direct practice in synchronous and asynchronous conversation with the instructor and other students on the voice discussion boards mentioned above (e.g. http://ihome.ust.hk/~lcjohn/International_Voice.htm).

Several second language acquisition (SLA) theorists recommend the use of dramatisation, actualisation and narrative techniques for effective SLA, regardless of the age of the learners (see Oller 1993). Scarcella and Crookall (1990) also review research to show how simulation facilitates second language acquisition by giving students the opportunity to try out new language in a safe environment. The learning theories they discuss claim that learners acquire language when:

- they are exposed to large quantities of comprehensible input through being engaged in genuine communication as part of the roles assigned to characters;
- they are actively involved in worthwhile, absorbing interaction, which tends to make students forget they are learning a new language; and
- they experience positive feelings and attitudes.

Such studies argue that the dramatisation of ‘real life’ problems helps students develop their critical thinking and language-related problem-solving skills. Role-playing would certainly appear to be a useful language acquisition activity to the extent to which we view language as a vehicle for the realisation of interpersonal relations and social transactions.

The particular role-playing activity which this system supports allows students to practise and demonstrate ‘higher-order’ linguistic skills such as the pragmatic devices necessary for developing a narration, resolving a conflict, conducting a negotiation, etc., while also being a useful vehicle for practice in basic grammar, vocabulary and conversational language devices. Students are guided in commonly avoided, misused or overused language devices. The activity gives students the opportunity to express cultural values and to be creative, while developing practical language strategies for handling business and social communication. Those who are normally shy to speak spontaneously in a classroom, out of concern over their imperfect English, say they appreciate the opportunity to practise using the language in this context. A serendipitous benefit of the activity is that it appears to give students who have limited ‘technology fluency’ more confidence in the use of computer applications, especially Internet skills. Incidentally, it also appears less prone to plagiarism: students seem less inclined to copy holophrastically from other sources when they are scripting for the digital puppets – perhaps because the activity is not so closely associated with academic assessment and right/wrong answers, as is the standard essay question.

The role-play activity (normally assigned once in each unit or in alternate units) was designed to encourage students to work collaboratively at a distance. However, while role-playing may be an ideal participatory exercise in active learning, this ideal cannot be fully realised if students find it difficult to schedule online meetings in order to co-design plays. Most students who have taken the course to this point are professionals seeking to improve their English, and most have chosen not to collaborate with other students in writing their role-plays. A number of students do, however, work with others – especially family members – in designing and scripting the plays. Even when they write the plays alone, they still socialise through the public production of the scenarios, by giving and receiving classmates’ feedback, and through the virtual relationships they establish among the animated characters. Several of the higher-order outcomes that are claimed for team-based role-playing activities are also possible in the creation of individually written role-plays, such as increased confidence in language production, heightened discriminatory skills, and the sheer fun that comes from the act of personal expression and creation. Collaborative elements can
be retained, even when the students cannot – or choose not to – work together. In addition to commenting on and grading each other’s plays (by assigning ‘stars’), students often spontaneously continue narrative lines from their classmates’ plays.

A functional thematic context (e.g. telephone skills, encouraging and criticising, the language of negotiation, etc.) is developed in each unit. Also, relevant grammar and lexis, along with the features of spoken language (e.g. stress, rhythm, intonation and pronunciation), are provided to students through a variety of high-interest interactive activities (including via licensed music and lyrics of popular songs streamed from our server). The spoken and written types of language input provided are based on research into the language learning difficulties of the students, and are more authentic and more extensive than can normally be made available in the classroom. The students are also encouraged in independent enquiry through the use of a number of language tools, including a concordancer (Milton 1999), through which they can look up authentic usage in relevant texts. They also have online access to grammar notes, dictionaries, etc.

Instructors and fellow students supply feedback to each play, based on which the students can rewrite their scripts. Care is taken to make the purpose and structure of the role-plays clear to the students, since many are more used to conventional lectures and essay assignments than to communicative methods (see Li 1999 for a discussion of the mismatch between student expectations for teacher-led instruction and the participatory methods preferred by western-educated teachers).

The script in Figure 4 indicates the range of language features that can be exemplified in communicative contexts with this technique. This script was written by the course instructor to present what, for our students, are problematic or unknown grammatical structures and lexis (e.g. verb forms and tenses, superlatives and idiomatic expressions). This scenario is part of a narrative theme carried through the course, in which the animated characters that are the main actors in the course use and respond to language for a variety of pragmatic purposes: argument, persuasion, reconciliation, etc.

The student script in Figure 5 illustrates the authentic, albeit imperfect, dialogue that students typically produce. The student has adopted two opposing points of view and appears to have made a conscious effort to use problematic grammatical structures (e.g. verb modality and tense), which are often avoided by learners of English. The grammatical errors in the script, many of which are typical of Cantonese speakers, provide teaching and learning opportunities, and, in the context of the dramatisation, are evidence that the student is involved in a genuine communicative act, rather than in merely completing an academic exercise in error avoidance.
Peedy. Speak: Boy, I’ve seen some good-looking people in my travels, but you’ve got to be the most striking person I’ve ever met!


James. Speak: OK, break it up, you two! Enough arguing! We’ve got work to do.

James. Speak: Merlin, What’s the longest that it will take to prepare that report I asked for?

Merlin. Speak: Well, let’s see, I couldn’t have it done before next week, since I have to finish other pressing work.

James. Speak: Next week? What other ‘pressing work’?

Merlin. Speak: Do you remember that project you asked me to complete by Friday?

James. Speak: Oh yes.

James. Speak: What can we do?

Peedy. Speak: Mr. Smith, I’ve been hoping for a chance to take on a task like this.

James. Speak: Merlin, this is a good opportunity for Peedy to learn the ropes, and for you to pick up some management experience.

Merlin. Speak: Well, I just worry that he’s a little inexperienced for this kind of responsibility, but I’m willing to give him a chance.

James. Speak: OK, Peedy. It looks like this might be your big break. Don’t disappoint me.

Peedy. Speak: Gee, thanks Mr. Smith. Thanks Merlin. I won’t disappoint you.
Charlie.Speak: I’m worry about my son.

Yan.Speak: What’s happened to him?


Yan.Speak: So do you?

Charlie.Speak: No, absolutly not. I only hope that he could pass his Grade 5 piano exam, gets the 4-styles swimming’s certificate, and do the exercises for Common English tutoring class, also pay full attention to the private tutoring class 3 times a week.

Yan.Play: Surprised
Yan.Speak: My goodness. Are there any free time for him to play?

Charlie.Speak: No. But every kid must learn the same way in Hong Kong. My son is not doing anything more. My neighbour, Mrs. Lee told me that her son is learning piano and another Chinese musical instrument; also learning English, French and Germany. Besides, her son need to go swimming, tennis and soccer training every weekend!

Yan.Speak: Why you both like to keep your sons so busy?

Charlie.Speak: All of the parents want their kids to be the best one. So kids must learn as many as they can! The competitions are fierce these days. If they are less capable they won’t be able to success in future. For now they even couldn’t go into the band one of high school!

Yan.Play: Think
Yan.Speak: In my opinion, every body including children must have their own right to learn any thing which is interesting. Any learning by force are not effective. It is a waist of time and money. Just put yourself in your son’s position, how would your feel? You are happy with these ton’s of learning and most of them you are not ever interested, aren’t you?

Yan.Play: Process
Yan.Speak: Even though there will be lots of challenges in future, kids still need to face the world by themselves. Giving them more freedom are the best way and chances of success is bigger.

Charlie.Play: Think
Charlie.Speak: Thanks for your suggestion. I have to think attentively, and try to change my way. Oh, I’m going for lunch. Would you like to go with me?

Yan.Speak: Thanks, but I’ve brought my lunch bag here. Next time we go together. Bye now.

Charlie.Speak: Bye, see you later.

Figure 5: Although this student script contains grammatical errors, the student has acquired structures and stress patterns, and improved in accuracy, vocabulary use and overall fluency in the process of writing the six assigned plays in the course. The instructor and fellow students rate, and comment on, each student’s script.
Conclusion

The system outlined in this paper allows language teachers and materials writers to take advantage of ongoing advances in Internet technology to deliver instruction, while encouraging participatory learning for ‘higher-order’ outcomes. The online English course developed on this system seeks to address cognitive and affective learning needs and allows students to pursue their own language learning goals free of many of the logistic limitations of the classroom. The specific modality highlighted in this paper combines Internet delivery with database connection, computer animation and speech technology to enable language learners to experiment with manipulating the second language in simulated and supported contexts.

This role-playing exercise is one of the most popular activities in the current online English course: almost all students find this activity “very interesting”, and at the completion of the course, most mention it as one of their favourite activities. The approximately 200 students who have taken the course so far increased their listening comprehension by 35% over the length of the course, based on standardised pre- and post-tests.

There are a number of plans to enhance the use of the narrative and dramatisation devices discussed here. In addition to being able to write their own scripts, students should be given more control over the narratives provided by the course author. This will mean building in various forms of student-driven controls, including possibly voice recognition, and writing branched scripts so that interactions proceed according to choices made by the student.

Notes

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