

Talk to Learn, Learn to Talk

Master's Project

Abstract

“Learn to Talk, Talk to Learn” is an online learning community designed to address the learning problems associated with the Beginning Conversational Chinese class (the second quarter and after) at Stanford. The data collected from the observation, interviews, survey, and document analysis shows that students in this class lack opportunities to communicate with native speakers in a real social context in which the language is really used. Also, English learners are experiencing the same problem in China.

This proposed online learning community will employ various web 2.0 technologies, including wikis, blogs, and voice/text instant messaging to provide a read/write web platform to connect distributed learners interested in one another's expert language to develop communicative competence.

1. Learning Problem

This project tries to address the learning problems associated with the Beginning Conversational Chinese classes at Stanford. The targeted audience is college students at Stanford University enrolled in a two-credit class to learn basic conversational Mandarin. The class is held in the winter quarter twice a week for 50 minutes. Each class has between 10-15 students.

I observed the class one time during the winter quarter, interviewed four students, and conducted a survey and document (syllabus and course materials) analysis. The data collected from the observation, interviews, survey, and document analysis shows that these learners are:

- ◆ Motivated – many are learning Chinese as an elective fun course
- ◆ Busy – learners can't fit more class time in their intensive course schedules
- ◆ Diverse – they come from a variety of backgrounds and majors
- ◆ Have prior knowledge – all have taken at least the autumn quarter basic Chinese course or equivalence

This class works around a major constraint – **lack of class time. Grammar rules, verb conjugations, and related drills occupy most of class time** (50 minute class).

According to American Educational Research Association (2006), effective foreign language instruction for adult learners includes direct teaching, systematic practice involving rules and grammar, and plenty of opportunities for conversation. It should be aimed at having students express and understand fully formed ideas and phrases, as well as learn the language's structure. A balanced instructional approach is vital. Too much focus on meaning fails to create the knowledge of structure necessary for anything

beyond the most basic conversational skills. At the same time, while teaching structures directly is highly productive, an over-reliance on structure, perhaps through endless mechanical drills, can lead to the “boredom factor;” students want to actually communicate in a foreign language, not labor over the nuts and bolts.

The learning lacks context (real-life situations, for example, buying food at the market or asking someone for directions). To be able to operate effectively in the real world, students need plenty of opportunities to practice language in situation which encourage them to communicate their needs, ideas and opinions (Abbs and Freebairn, 1995). Where possible, language practice should resemble real life communication with genuine exchange of information and opinions (Swan and Walter 1990)

Students also **lack a supportive conversational language learning resource out-of-class** (e.g., native speakers to practice). For almost everyone, high proficiency in a foreign language will develop outside the classroom, through conversations with native speakers made possible by the skills acquired in the classroom (American Educational Research Association, 2006). Based on the interviews, they expressed the desire for more practice time and extra help after class. Some students already access other resources like parents, friends and published language media to augment their learning. Access and use of support materials is inconsistent.

By participating (observing and interviewing) several online English learning communities, the same learning problem is identified for the English learners in China.

Based on the above discussion, the learning problem can be summarized in one sentence: The students of the Beginning Conversational Chinese classes at Stanford and English learners in China lack opportunities to develop communicative competence, especially with native speakers, in a real social context in which the foreign language is really used. The ability to communicate effectively in the new language is a vital part of the language learning process.

2. The Learning Goals

Learners will understand how to use basic conversational Chinese/English to effectively and wisely interact and communicate in Chinese/English-speaking situations. They have to be able to:

- ◆ use correct Chinese/English to communicate
- ◆ use the language in a way which is appropriate to the context and is culturally sound.
- ◆ navigate real life situations and environments that require flexibility and the ability to express wants and needs.

Under this framework, learners have freedom to develop their own specific unit or topic learning goals based on their prior knowledge, level, interest, and background.

3. Theory and Rationale

3.1. Literature Review and Existing Solutions

Numerous projects/research studies attempted to address the identical or similar problems as presented in the conversational Chinese class at Stanford. Most of these projects/research studies are in a broader context of foreign/second language (mostly English as second language) acquisition. Chinese acquisition as second language is even more difficult than other language acquisition since it has four tones for each character, which means more corrective feedback is needed during the learning, and therefore more interaction, not just imitation. A booming category of projects/research studies in recent years focus on the use of Internet information and communication tools to support second language acquisition between (typically) internationally dispersed groups of learners who are members of different linguistic and cultural groups. Over the past decade, the ability to link students by networked computers has opened up a variety of opportunities for language based social interaction in second and foreign language education. Language use over networks provides a variety of communicative situations, many of which are not readily available in foreign language classrooms (Cononelos & Oliva, 1993).

The use of Internet technologies to encourage dialogue between distributed individuals and partner classes proposes a compelling potential in addressing the problem encountered in the conversational Chinese class at Stanford and English learners in China by providing learners from classroom-based contexts the opportunities of actual interaction with expert speakers of the language they are studying. There exist numerous models in literature that make use of Internet-mediated interaction between learners interested in one another's expert language. They are summarized below.

3.1.1. Telecollaboration

It is international class-to-class partnerships within institutionalized settings. Telecollaborative projects generally involve intensive coordination that can include aligning partner class syllabi around shared information and media (literature, films, and scholarly texts) and collaborative interpretive and investigative activities. Telecollaboration models are administratively intensive to initiate and maintain due to the high level of coordination between partner classes (e.g., Belz and Müller-Hartmann 2003).

3.1.2. Local Experts

This kind of projects link together local expert speakers, such as diaspora, immigrant, and heritage language populations, with foreign language students in organized partnerships. Blake and Zyzik (2003) used synchronous chat to connect Spanish heritage language students in a university language course with Spanish foreign language learners on the same campus. The foreign language learners gained access to interaction with more advanced speakers of Spanish while the heritage speakers occupied expert roles that helped to affirm their cultural and linguistic backgrounds.

3.1.3. Non-educationally Oriented Internet Communities

This model encourages (or requires) learners to participate in established and non-educationally oriented Internet communities, such as discussion forum associated with newspapers. The use of interaction in online communities as component parts of instructed foreign language courses has been shown to provide opportunities for negotiation of meaning (Tudini 2003) and to situate foreign language use in non-educational social contexts (Cononelos and Oliva 1993; Hanna and de Nooy 2003).

3.1.4. Tandem Learning

Tandem learning pairs individuals in complementary dyads where each is interested in learning the other's language. Tandem learning is most associated with non-institutional learning configurations and usually requires partners to negotiate discussion topics and the balance between overt pedagogical and conversational activity. Tandem partners may not address repeated and significant linguistic errors, and if they do, they may not be capable of providing productive explanations (Kötter, 2003).

3.2. Educational Theory

My design approach of the solution will be primarily based on two second language acquisition approaches (Communicative Language Teaching/Learning and Intercultural Competence) in particular and How People Learn in general.

3.2.1. Balance in-class Audio-Lingual Teaching with out-of-class Communicative Language Learning

The Audio-Lingual Method (ALM) arose as a direct result of the need for foreign language proficiency in listening and speaking skills during and after World War II. It is closely tied to behaviorism, and thus made drilling, repetition, and habit-formation central elements of instruction. Proponents of the ALM felt that this emphasis on repetition necessitated a corollary emphasis on accuracy, claiming that continual repetition of errors would lead to the fixed acquisition of incorrect structures and non-standard pronunciation.

In the classroom, lessons were often organized by grammatical structure and presented through short dialogs. Often, students listened repeatedly to recordings of conversations and focused on accurately mimicking the pronunciation and grammatical structures in these dialogs (that is what exactly happened and is happening in the Beginning Conversational Chinese classroom at Stanford).

Critics of the ALM asserted that this over-emphasis on repetition and accuracy ultimately did not help students achieve communicative competence in the target language.

Whereas traditional language teaching places a lot of emphasis on grammar rules and verb conjugations, Communicative Language Teaching (CLT) emphasizes real-life

situations and communication in context (Galloway, 1993). While grammar is still important in the CLT classroom, the emphasis is on communicating a message. Language is used for communication. For this reason, CLT makes use of communication to teach languages. The essence of CLT is the engagement of learners in communication to allow them to develop their communicative competence. In CLT, students practice real-life situations, for example, buying food at the market or asking someone for directions. In these exercises, the goal is for the student to communicate his or her needs and thoughts, without worrying about having perfect grammar.

Multimedia is an ideal way to teach language using CLT as the theory. It allows for realistic simulations of communicative situations. Many such programs are games, such as "A la rencontre de Philippe" or "Who is Oscar Lake?" They place the learner in a situation in which understanding basic communication, and social and cultural contexts are vital to advancing in the game.

According to American Educational Research Association (2006), effective foreign language instruction for adult learners includes direct teaching, systematic practice involving rules and grammar (Audio-Lingual Method), and plenty of opportunities for conversation (Communicative Language Teaching). It should be aimed at having students express and understand fully formed ideas and phrases, as well as learn the language's structure (Norris & Ortega, 2000). A balanced instructional approach is vital. Too much focus on meaning fails to create the knowledge of structure necessary for anything beyond the most basic conversational skills. At the same time, while teaching structures directly is highly productive, an over-reliance on structure, perhaps through endless mechanical drills, can lead to the "boredom factor;" students want to actually communicate in a foreign language, not labor over the nuts and bolts (DeKeyser, 2003).

To be able to operate effectively in the real world, students need plenty of opportunities to practice language in situation which encourage them to communicate their needs, ideas and opinions (Abbs & Freebairn, 1995). Where possible, language practice should resemble real life communication with genuine exchange of information and opinions (Swan and Walter 1990)

For almost everyone, high proficiency in a foreign language will develop outside the classroom, through conversations with native speakers made possible by the skills acquired in the classroom (American Educational Research Association, 2006).

Implications to my design: since a balanced instructional approach is vital to the second language acquisition and the Audio-Lingual Method has already been emphasized in in-class learning, logically, Communicative Language Teaching/Learning will be an appropriate approach for designing out-of-class learning activities as an extension to in-class learning to compensate what is lacking in-class learning - the learning problems identified in this design.

3.2.2. Intercultural Competence

According to Byram (1997), Intercultural Competence is defined as the capacity to mediate multiple cultural identities and situations. Intercultural communication focuses on interactions among people from different cultures” (Kecskes, 2004). It involves “the study of distinct cultural or other groups in interaction with one another” (Scollon & Scollon, 2001,).

According to the Council of Europe (2001), communicative competence alone is no longer adequate as the sole goal of Foreign Language Learning. Rather, the “objective of foreign language teaching is now ... ‘intercultural competence’” (Sercu 2004). Sercu continues by noting, “seen from the intercultural perspective, it can be said that what a foreign language learner needs to learn in order to attain communicative competence is not how to adapt to any one of the foreign cultures present, and forget about his/her own cultural identity. Rather, the task of the participants in such an intercultural situation will be to negotiate, by means of implicit or explicit cues, a situationally adequate system of (inter)cultural standards and linguistic and pragmatic rules of interaction” (Sercu 2004).

Foundational to Intercultural Competence Foreign Language Education pedagogy is the desire to cultivate conditions for the development of intercultural competence. Dialogue and other forms of interaction among people from different languacultures can foster productive, and perhaps even necessary, conditions for developing intercultural communicative competence since differing languacultures and the rich points made visible through their contact have the potential to create potent conditions for learning.

Implications to my design: when designing second language learning environments, dialogue and communication among differing languacultures should be encouraged and cultural issues should be emphasized in the language learning.

3.2.3. How People Learn in General

Given current research data about human learning, the design of learning environments should be (Bransford, Brown, & Cocking, 2000).

◆ Learner Centered

It refers to environments that pay careful attention to the knowledge, skills, attitudes, and beliefs that learners bring to the educational setting. A strong body of evidence suggests that learners use their current knowledge to construct new knowledge and that what they know and believe at the moment affects how they interpret new information. Effective instruction begins with what learners bring to the setting which includes cultural practices and beliefs as well as knowledge of academic content. Learner-centered environments attempt to help students make connections between their previous knowledge and their current academic tasks.

Implications to my design: learners decide what, how, and when to learn based on their level, background, and prior knowledge with guidelines and suggestions from experts.

◆ Knowledge Centered

Effective environments must also be knowledge centered. Environments that are solely learner centered would not necessarily help students acquire the knowledge and skills necessary to function effectively in society. Knowledge centered refers to environments that help students become knowledgeable by learning in ways that lead to understanding and subsequent transfer. It focuses on the kinds of information and activities that help students develop an integrated understanding of disciplines and educate them to understand an overall picture rather than isolated parts. Knowledge-centered environments also include an emphasis on sense-making.

Implications to my design: collective scenario-based skit writing, which mirrors real life situations, and conversation between distributed language learners can help students become knowledgeable by learning in ways that lead to integrated understanding and subsequent transfer ("using language") and are also sense-making activities.

◆ Assessment Centered

In addition to being learner centered and knowledge centered, effectively designed learning environments must also be assessment centered. The key principles of assessment are that they should provide opportunities for feedback and revision and what is assessed must be congruent with one's learning goals. Opportunities for feedback should occur continuously, but not intrusively. Effective teachers also help students build skills of self-assessment. Students learn to assess their own work, as well as the work of their peers, in order to help everyone learn more effectively. Such self-assessment is an important part of the metacognitive approach to instruction. Opportunities to work collaboratively in groups can also increase the quality of the feedback available to students.

Implications to my design: encourage self-assessment and assessment (both synchronously and asynchronously) among peers with emphasis on the alignment between the assessment and the learning goals; use formative assessment as sources of on-going feedback to improve teaching and learning and summative assessment to measure what students have learned at the end of some set of learning activities.

◆ Community Centered

New developments in the science of learning suggest that the degree to which environments are community centered is also important for learning. Especially important are norms for people learning from one another and continually attempting to improve, such as these increase people's opportunities to interact, receive feedback, and learn, value the search for understanding, and allow students (and teachers) the freedom to make mistakes in order to learn. Connections to experts outside of school can have a positive influence on in-school learning.

Implications to my design: build a community to connect geographically distributed language learners who are experts of their own native language and suggest or encourage learners to develop community rules and norms which foster learning.

◆ Alignment among the Four Perspectives

Finally, there needs to be alignment among the four perspectives of learning environments. They all have the potential to overlap and mutually influence one another. They need to be conceptualized as a system of interconnected components that mutually support one another.

Implications to my design: develop a checklist to align goals for learning with what is taught, how it is taught, and how it is assessed (both formatively and summatively).

3.3. Design Principles

- ◆ Base design on the appropriate learning theories and scientifically verified research
- ◆ Technology should be free and simple. Technology is a tool to support learning. The students and teachers should not have to invest in learning new tools or IT support. It should incorporate every day tools available on the internet that student's may already be using.
- ◆ Address a local learning problem, but scalable and generalizable to the larger and similar population.
- ◆ Not intend to replace classroom, rather to complement classroom learning.
- ◆ Focuses on the acquisition of basic conversational Chinese/English to survive in the streets in China/USA, but can be modified for intermediate and advanced oral Chinese/English
- ◆ Not intend to replace classroom, rather to complement classroom learning
- ◆ Harness learner-generated content to meet the learner's needs and release the burden imposed on teachers/developers

4. Design Process

The idea of this design **originated** from the curriculum Angel and I designed for the Beginning Conversational Chinese class at Stanford in Denise Pope's Curriculum Construction in the winter quarter. For this curriculum project, we observed the class and conducted a survey, document analysis, and interviews. Based on this data, I identified the learning problem and found that students in this class lack opportunities to develop communicative competence, especially with native speakers, in a real social context in which the language is really used.

Also in the winter quarter, the idea was **further developed** in Clifford Nass' Computer and Interfaces class. In this class, we deigned a user interface for volunteer English tutors in US and English learners in China. We found that it was hard for English learners in

China to find native speakers to practice English, the same problem faced by Chinese learners at Stanford.

The design was **inspired** by Roy Pea's The Online Community for the Service of Learning class in the spring quarter. In this class, I immersed in Exue.com (an online community for English learning in China) and submitted a redesign proposal for this community. From my observations and interviews with those online learners, it was confirmed that it was hard for Chinese counterparts to find native speakers to practice English. In addition, they expressed the need that some supporting resources should be made available online to scaffold learning. More importantly, I was deeply exposed to a collection of practices of online community for the service of learning and investigated the possible technologies for my design.

During the spring quarter, I did extensive **literature review** for existing solutions and educational theories, especially second language learning theories and exposed my design idea in ED 229. With feedback from Deedee, Shelley, and LDT peers, the **proposal** "Talk to Learn, Learn to Talk" was formed and submitted at the end of the spring quarter.

At the beginning of the summer quarter, with the feedback from Deedee, Decker, Kihyun, and LDT peers, the **solution** was formed. Then, it was **prototyped**. With the data from **ongoing user studies**, the prototype was iteratively refined.

The main **design challenges** are listed below:

- ◆ One challenge is how to find the initial users, especially Chinese learners in USA, given that college students are in the summer break. English learners in China are easy to find since there are more than 200 million English learners in China and a bunch of online English learning communities. Fortunately, one of my classmates is learning Chinese now and she also introduces one of learners from her previous Chinese class to participate in my project. But the challenge still exists. The strength of this project is harnessing collective intelligence. Without enough participants, its learning power is discounted.
- ◆ Native speakers are not necessarily good language tutors. Therefore, one challenge is how to ensure the real learning can happen even if the native speakers are not pedagogically trained. In addition to the sound pedagogical approaches built into the learning activities, making them visible and educating the user to be aware of it is also important. The learning tips of the user guide were created to address this challenge.
- ◆ The time difference between China and USA, assuming most native speakers are from China and USA. 7 pm in California is 10 am in China. Given that most of language learners are college students, they might think the time difference is not a problem. It was confirmed, by interviewing them, that they would be fine with the time difference because it was not going to affect anything as soon as they did not need to work.
- ◆ Since L2 communicative competence gain cannot be achieved in a short time period, the program effective study (except the user study) cannot be conducted

during the short design period, but will be conducted after the solution is fully implemented.

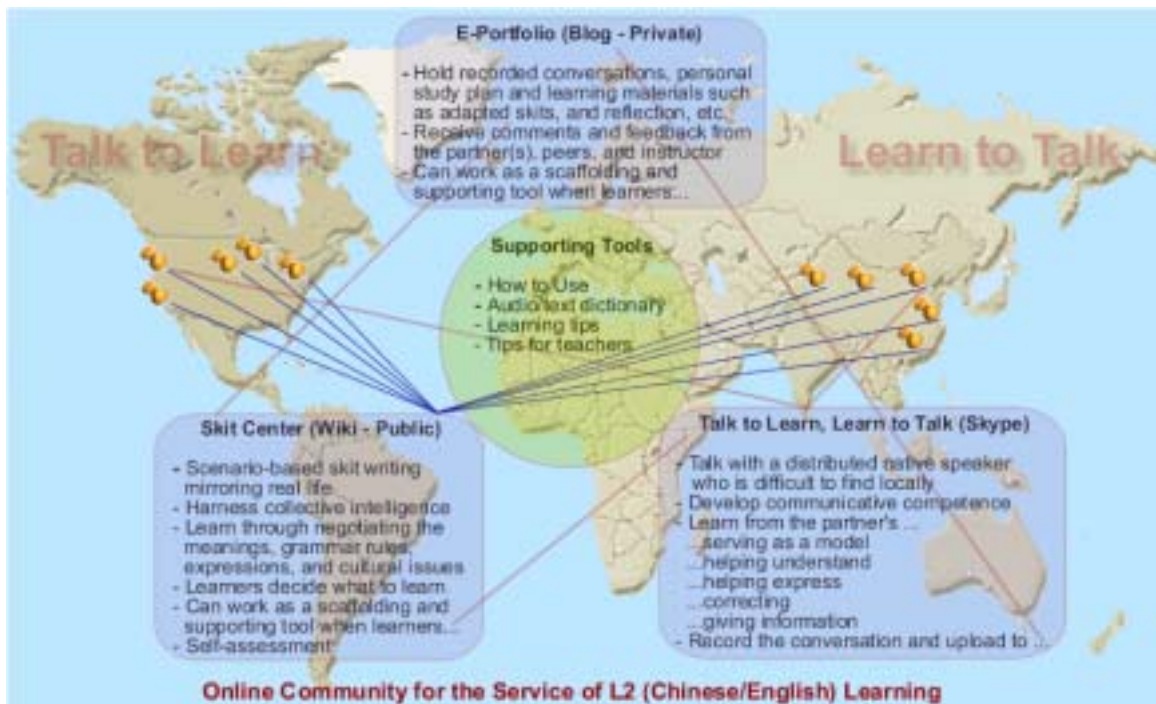
5. The Solution

5.1. What and How

The use of Internet technologies to encourage dialogue between distributed individuals and partner classes proposes a compelling potential in addressing the problem encountered in the conversational Chinese class at Stanford English learners in China by providing learners from classroom-based contexts the opportunities of actual interaction with expert speakers of the language they are studying. My solution is an online community “Talk to Learn, Learn to Talk” for the service of second language (Chinese/English) learning which uses various Internet and web 2.0 technologies and provides the following features:

5.1.1. Skit Center (Wiki - Public)

It is wiki-based and harnesses collective intelligence. Geographically distributed users (learners and teachers) collectively contribute to the content. It is organized scenario by scenario. Each scenario skit simulates a real-life situation in a specific social context, for example, having meals at restaurants. One scenario can have different level skits (e.g., basic, intermediate, and advanced) and each level have different versions to accommodate different number of participants.



Any user can edit and create content. Each skit is written in English, Pinyin, and Chinese Character, so it has three versions: the combined version, English version, and Pinyin/Chinese Character version. In addition to the skit body, there are also user-generated learning objectives, learning activities, and assessment, and culture related issues specific to the scenario. Since the content is contributed by native English speakers and native Chinese speakers who are experts of their own native language, the quality can be ensured. It also reflect current trend of how the language is used in the native country. The collectively generated and freely shared skits with other supporting materials, combined with audio dictionary tool, can work as the scaffolding and supporting tool when they are talking to learn and learning to talk via voice/text messaging with their learning partner.

By negotiating the meanings, grammar rules, expressions, and cultural issues when collectively generating the skits mirroring the real life situations and also by sharing them, the learners harness the collective intelligence (Community centered) to learn to use the foreign language correctly and appropriately (Knowledge centered). It gives them the opportunities to communicate with native speakers, develops their communicative competence and intercultural competence in the context mirroring the real life (the learning problem)

By revising others' writing, the learners give feedback, while by being revised by others, they receive feedback for their writing. Also, by trying writing and comparing with the latest version of the writing, the learner can assess his or her own learning. (Assessment centered)

Learners decide what, how, and when to learn based on their level, background, and prior knowledge with guidelines and suggestions from experts. They can write what they are interested in. They can also adapt the skit to their level and develop their own learning plan. (Learner centered)

5.1.2. Talk to Learn, Learn to Talk (Skype with PowerGramo)

There is an instant voice/text messaging software (recommend Skype) installed in each learner's computer with recording device (recommend PowerGramo). They learners can choose what they are familiar with, but the instant messaging should provide both voice and text chatting for the learners. The learners first find their learning partner among the registered members in the wiki (skit center) community, and then use this tool to talk to learn and learn to talk. The learners can use the resource inside the Skit Center and an audio/text dictionary in their local computer to support their chatting. They need to negotiate when and how long for one another's foreign language (Chinese/English). Each of them decides what he or she wants to talk in the foreign language, based on his or her interest, background, and prior knowledge (learner centered). They can also use a recording device (recommend PowerGramo) installed in their computer to archive their talking for later review and assessment from the partners, instructor, or peers.

Although neither of the partners are language teachers, they are both native speakers of the language the other person is learning. In addition, each of them knows a great deal about life and culture in his or her own country. They can thereby learn a lot from one another, for the partner can:

- ◆ Serve as a model - the other person learns from what the partner says or writes in his native language
- ◆ Help when the other person doesn't understand something
- ◆ Help if the other person want to say something and is not sure how
- ◆ Correct the other person's mistakes (assessment centered)
- ◆ Give the other person information about life and culture in his country (Intercultural competence)

In summary, "Talk to Learn and Learn to Talk" provide opportunities for the learners to directly communicate with outside expert speakers from different culture for what fits their interest, background, and prior knowledge, and helps them become knowledgeable by learning in ways that lead to integrated understanding and transfer ("using language") in the real context and is also a sense-making activity. Therefore, it is learner center, knowledge centered, assessment centered, and community centered and develops learners' communicative competence and intercultural competence.

5.1.3. E-Portfolio (Blog - Private)

Each user has a blog as the private space to post his or her reflection on learning, learning strategies, and learning products in the form of text, video, audio, etc. and arrange his or her personal learning plan. For example, they can adapt the skits on the wiki site according to his or her level, interest, prior knowledge, and learning goals, and then post it on the blog. There is a member list inside the Skit Center which has a link to each learner's blog. Blogs mainly work as a place to hold the learners' e-portfolio to record the learners' academic progress and for peer/self-evaluation. Learners are encouraged to give/ask feedback and comments about the learning to /from peers. It is community centered, learner centered, and assessment centered.

5.1.4. Supporting Tools

- ◆ Audio Dictionary (recommend Kingsoft's Powerword 2006): it is installed in learners' computer. The learners can look in the meaning of new vocabulary and check for pronunciation for both English and Chinese.
- ◆ User website
 - Suggested "How to Use"
 - Learning tips for learners
 - Tips for instructors

5.2. Alignment

The following table shows how the learning activities/features are aligned with learning theories and problems.

Alignment among Learning Activities, Theories, and Problems			
Services	Features/Activities	Learning Theories	Learning Problem
Skit Center TLLT E-Portfolio	◆ Connect learners	◆ Community centered	Provide learners opportunities to develop communicative competence, especially with native speakers, in a real social context in which the language is really used.
Skit Center	◆ Write skit mirroring real life ◆ Negotiate the meanings, grammar rules, expressions, and cultural issues ◆ Communicate with people from different culture	◆ Knowledge centered ◆ Communicative competence ◆ Intercultural competence	
TLLT	◆ Communicate with people from different culture, it is real life. ◆ Serve as a model ◆ Help to understand ◆ Help to express ◆ Give info about culture and life		
Skit Center TLLT	◆ Learner decide what to learn	◆ Learner centered	
Skit Center	◆ Revise others' writing and be revised ◆ Compare with others' writing	◆ Assessment centered	
TLLT	◆ Correcting		
E-Portfolio	◆ Feedback		
Support Tools	◆ How to Use ◆ Audio Dictionary ◆ Learning/Teacher Tips		

TLLT: Talk to Learn, Learn to Talk

5.3. Implementation Model

For the developer:

- ◆ Contact potential users (for example: students at universities, language teachers, other learners, etc.) and tell them there is a free tool to learn foreign languages (Chinese/English) for the initial spread.
- ◆ Then it can be further spread by words of mouth.

For the users (learners and instructors with Internet access):

- ◆ Go to the User Website (<http://ldt.stanford.edu/~luwuping/tllt/>) and read the user guide.
- ◆ Download and install voice/text messaging software (recommend Skype at <http://www.skype.com/download/>) and audio recording software (recommend PowerGramo at <http://www.powergramo.com/download.htm>)
- ◆ Download and install an audio Chinese/English dictionary (recommend Kingsoft's Powerword 2006 at <http://cp.iciba.com/cbdown.htm>)
- ◆ Open an account on a blog site (recommend <http://www.blogger.com/start>), if the user does not have one

- ◆ Register on the Chinese/English learning wiki site (<http://chinaus.jot.com/>) and post the contact info on the member page
- ◆ Collaboratively contribute to the bilingual skits at <http://chinaus.jot.com/>
- ◆ Meanwhile, contact the other learners on the member page to find your language learning partner(s)
- ◆ After having found your learning partner, negotiate what, when, and how to learn with your partner
- ◆ Talk to learn and learn to talk one another's language (Chinese/English) via voice/text messaging and get/give instant feedback from/to your partner. If needed, use the bilingual skits and audio dictionary to scaffold and support your learning.
- ◆ Record the conversation by using the audio recording software
- ◆ Post the recorded talking on your blog for detailed feedback from your partner/instructor
- ◆ Also give your feedback to your partner on his or her blog.

5.4. Prototype (Working Model)

5.4.1. Components

The prototype is a working prototype and can be used right away (To experience the prototype, please go to <http://ldt.stanford.edu/~luwuping/tllt/>). It comprises of four components.

- ◆ Wiki site for Skit Center (online)
- ◆ Skype with PowerGramo (installed on learners' computer) for "Talk to Learn and Learn to Talk" and recording the conversation
- ◆ Blogs for E-Portfolio to hold learners' work and feedback (online)
- ◆ Supporting Tools
 - Audio Dictionary (installed on learners' computer)
 - User Website (online) comprising of
 - Suggested How to Use
 - Learning tips
 - Teacher tips

5.4.2. Strength

The strength of this design is not attributable to the technology itself, but how to use the technology for the service of second language learning – integrating appropriate pedagogical approaches into the learning activities by wisely harnessing the affordance and constraints of the technology. The strength is listed below:

- ◆ Theory-based design iteratively informed by ongoing learner feedback
- ◆ Harness collective intelligence
- ◆ Alignment among what to learn, how to learn, and how to assess

- ◆ All technologies are free and easy use
- ◆ Learner-generated content to meet the learner's needs and release the burden imposed on teachers/developers Spread by words of mouth
- ◆ Spread by words of mouth

5.4.3. User Scenario

Angel is enrolled in the class of Conversational Chinese at Stanford this quarter. She experienced a learning problem - lacking opportunities to communicate with native speakers in a real social context in which the language is really used. Wu is English learner in China. He is experiencing the same learning problem with Angel.

Fortunately, one of ldt students created an online community which connects distributed learners interested in one another's expert language to develop communicative competence and intercultural communication competence. Currently, 30 native Chinese speakers in China who are interested in learning English are active participants in this community. Angel and her classmates (14) in conversation Chinese are registered too. On the community's wiki site, they have already created 9 bilingual scenario skits by using collective intelligences and want to generate more.

Angel regularly chats with her language partners through Skype. Today, she will chat with Wu at 9 pm. It is 8:30 pm now and she opens Skype and logs in. Wu has not yet come. Angel opens the wiki site and finds that some entries she created in Pinyin have been changed with annotations. She then edits some English entries. After a while, Wu logged in. they start free chatting first without any aid. Soon Angel finds that it is hard for her to keep a meaningful conversation with Wu due to her very limited communicative competence. She decides to use a skit to aid her conversation. She also uses the audio dictionary tool to quickly find pronunciations. With the aid Angel now feels confident and the conversation becomes fluent. Now it is Wu's turn to communicate in English. Although Angel does not have pedagogical expertise specific to English, with pedagogical supports associated with the skit on the wiki, the process of tutoring Wu in English is pretty smooth. The whole chatting process is recorded. Then Angel uploads the chatting into her blog for the instructor or peer assessment or her own review.

6. Learner Assessment/Effectiveness Study

Assessment includes two parts: one for learner assessment, one for program effectiveness evaluation.

6.1. Learner Assessment

The following table shows how learners are assessed: formative assessment to improve teaching and learning; summative assessment to measure what they learned at the end of some set of learning activities. Tests can be generated collectively by users, of course, with guideline from experts.

Learner Assessment			
Services	Activities	Type of Assessment	Assess What
Skit Center	<ul style="list-style-type: none"> ◆ Revising others' writing ◆ Being revised ◆ Comparing with others' writing 	<ul style="list-style-type: none"> ◆ Formative assessment (occur continuously) ◆ Self/Peer assessment ◆ Improve teaching and learning 	Use the language correctly and appropriately in a way which is culturally sound
TLLT	<ul style="list-style-type: none"> ◆ Correcting ◆ Being corrected 		
TLLT E-Portfolio	<ul style="list-style-type: none"> ◆ TEST 	<ul style="list-style-type: none"> ◆ Summative assessment (occur at a key time) ◆ Peer/Teacher Assessment ◆ Measure what learners have learned at the end of some set of learning activities 	

6.2. Effectiveness Evaluation

The second part is program effectiveness evaluation: the user study employed to iteratively improve the design through observations, interviews, and questionnaire; program evaluation study used to test the effectiveness of the tool through the experiment. It asks two questions:

- ◆ Does the group using the tool achieve higher performance gain than the group not using the tool?
- ◆ Is the tool group subjects' participation positively correlated with their performance gain?

The program evaluation study (the experiment) is not conducted this time, since the performance gain of communicative competence takes time.

Effectiveness Study			
Study	Methods	Research Questions	Purpose
User Study	Qualitative: <ul style="list-style-type: none"> ◆ Observations ◆ Interviews ◆ Questionnaire 	<ul style="list-style-type: none"> ◆ Is the user guide clear? ◆ Do they use the tool as expected? ◆ Is it easy to use? ◆ Any feature particularly conducive to their learning? ◆ Are they engaged in the learning activities? ◆ Any difficulty? ◆ Any suggestion? 	To improve the design iteratively
Program Evaluation	Experiment: <ul style="list-style-type: none"> ◆ Experiment & Control group ◆ Pre-test at the beginning of the quarter ◆ Post-test at the end of the quarter ◆ Independent variables: participation (amount of entries and conversation time) and intervention. ◆ Dependent variables: performance gain (post-test minus pre-test) 	<ul style="list-style-type: none"> ◆ Does the group using the tool achieve higher performance gain than the group not using the tool? ◆ Is the tool group subjects' participation positively correlated with their performance gain? 	To evaluate the effectiveness of the product

The following is the summary for the user study based on observations, interview, and questionnaire with two users.

Summary of User Study	
Research Questions	Results
Is the user guide clear?	All two users agreed that the user guide was clear. They mentioned that they knew they could learn by writing skits and talking through Skype with the partner, but only after having reading the user guide, they learned how to effectively learn by following the suggested learning tips.
Do they use the tool as expected?	Yes, they did.
Is it easy to use? Any difficulty?	It is easy to use for the Chinese learner in USA since he has already been familiar with wiki, blog, and Skpe. For the English learner, the initial use of these tools was not easy since this was his first time to use wiki and blog. However, after a few tries, the initial difficulty was gradually reduced. One difficulty is to give feedback to the recorded conversation or other media. They said if it was several minutes long, it was easy to give feedback; but if it was very long, it was hard to give useful feedback because the "common ground" was lost.
Any feature particularly conducive to their learning?	They said the skit writing and the audio dictionary were particularly conducive to their learning since the English/Chinese part could always be revised by its native speakers so that they knew the correct way to express in the foreign language they were learning and the audio dictionary could quickly help them look in meaning and pronunciation. They also mentioned that the cultural issue discussed in the skit center helped them use the language in a culturally sound way. The skits also helped scaffold their learning when they talked through Skype.
Are they engaged in?	Yes, they were.
Any suggestion?	They suggested integrating the blog into the skit center so that they did not need to leave the skit center in order to enter the blog. They also suggested that if the skits could be directly connected to the instant messaging, that would be great.

7. Further Work

The next step is to fully implement the product and have more users to participate in

- ◆ to put the potential of collective intelligence into full play
- ◆ to have more user feedback for design improvement (apparently, only two users' feedback is insufficient)
- ◆ more importantly, to conduct the experiment study to find out
 - Does the group using the tool achieve higher performance gain than the group not using the tool?
 - Is the tool group subjects' participation positively correlated with their performance gain?

I would also like to explore the possibility of using each user's member page in skit center rather than the blog as e-portfolio so that the users do not need to switch between two platforms.

The most ambitious step is to develop instant messaging software with built-in recording and annotating feature for the purpose of language learning, which can be directly connected to skit center (wiki). By using software, the user can pull data from the skit center when needed, annotate and comment the recorded conversation with time stamp, and then send it to the skit center for sharing.

Reference:

- Abbs, B. & Freebairn, I. (1995), *New Blueprint Intermediate*, Longman.
- Belz, J. A., & Müller-Hartmann, A. (2003). Teachers as intercultural learners: Negotiating German-American telecollaboration along the institutional fault line. *The Modern Language Journal*, 87(1), 72-90.
- Blake, R & Zyzik, E. (2003). Who's helping whom?: Learner/heritage speakers' networked discussions in Spanish. *Applied Linguistics*, 24(4), 519-44.
- Bransford, J. D., Brown, A.L., & Cocking, R. R. (Eds). (2000). *How people learn: Brain, mind, experience and school*. Expanded Ed, Washington, D.C., National Academy Press.
- Byram, M. (1997). *Teaching and Assessing Intercultural Communicative Competence*. Clevedon, UK: Multilingual Matters.
- Cononelos, T. & Oliva, M. (1993). Using computer networks to enhance foreign language/culture education. *Foreign Language Annals*, 26 (4), 527-534.
- Council of Europe. (2001). *Modern Languages: Learning, Teaching, Assessment. A Common European Framework of Reference*. Cambridge: Cambridge University Press.
- DeKeyser, R.M. (2003). "Implicit and Explicit Learning." In C. Doughty and M. Long (Eds.) *Handbook of Second Language Acquisition*. Oxford: Blackwell, pp. 313–348.
- Educational Research Association. (2006). *Foreign Language Instruction: Implementing the Best Teaching Methods*, retrieved on May 15, 2006 at http://www.aera.net/uploadedFiles/Journals_and_Publications/Research_Points/AER_A_RP_Spring06.pdf
- Galloway, A. (1993). *Communicative language teaching: An introduction and sample activities*. Washington, DC: ERIC Clearinghouse on Languages and Linguistics.
- Hanna, Barbara, and Julianna de Nooy. 2003. A Funny Thing Happened on the Way to the Forum: Electronic Discussion and Foreign Language Learning. *Language Learning & Technology* 7(1): 71–85.
- Kecskes, Istvan. 2004. Lexical Merging, Conceptual Blending, Cultural Crossing. *Intercultural Pragmatics* 1(1): 1–4.
- Kötter, Markus. 2003. Negotiation of Meaning and Codeswitching in Online Tandems. *Language Learning & Technology* 7(2): 145–172.
- Norris, J.M., Ortega, L. (2000). "Effectiveness of L2 Instruction: A Research Synthesis and Quantitative Meta-Analysis," *Language Learning*, 50(3), pp. 417–528.
- Scollon, R. & Scollon, S. W. (2001). *Intercultural Communication: A Discourse Approach*. Malden, MA: Blackwell.
- Sercu, L. (2004). *Intercultural Communicative Competence in Foreign Language Education: Integrating Theory and Practice*. In *New Insights into Foreign Language Learning and Teaching*, edited by Oliver St. John, Kees van Esch, and Eus Schalkwijk, 115-130. Frankfurt: Peter Lang.
- Swan, M. and Walter, C. (1990). *The New Cambridge English Course, Teacher's Book Level 1*. Cambridge: Cambridge University Press.
- Tudini, E. (2003). Using Native Speakers in Chat. *Language Learning & Technology* 7(3): 141–159.