Audioblogging: Supporting the Learning of Oral Communication Skills in Chinese Language

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Abstract

Language is about communicating meaning and one mode of expression is through the use of sound. An emerging technology that is used for teaching and learning of oral skills is Blogging. The addition of sound and audio files to Blogs has led to the proliferation of Audioblogs. The use of Audioblogging, or Podcasting, in institutions is fast on the rise and educators have begun to explore the potentials of Podcasting. The pedagogic use of blogging is grounded in Vygotskian theories of social meaning making (Ferdig & Trammell, 2004) as children learn to express themselves using language through a process of social construction (Halliday, 1979). However, studies on Audioblogging are scarce. This study investigates the use of Audioblogs to teach the oral skill of conversing about pictures in a Chinese language classroom. Activity Theory (Engeström, 1996) was used as a framework to design an approach incorporating the use of Audioblogs to develop picture conversation skills. The approach was implemented in a group of elementary school students as an enrichment lesson. For comparison purpose, another group of students went through the enrichment programme without the use of Audioblogs. This study showed that by providing students with an Audioblogging environment as well as a platform to solicit comments and feedback of performances, there was an improvement in the students' ability in picture conversation. A study using a larger sample needs to be undertaken to determine the effectiveness of Audioblogging on students' picture conversation test performance.

Discussion Questions

- 1. What are the theoretical foundations of learning from blogging/audioblogging as an emerging technology?
- 2. With reference to the field of second language acquisition or your research interest/expertise,
 - a) What are some researches that could be conducted on blogging/audioblogging?
 - b) What are some ideas you have for investigating the phenomena?
 - c) How are the findings going to contribute to the field?
 - d) How do you think this might have an impact on the field?
- 3. This study was primarily conducted to inform practice. How do we manage a balance between informing theory and practice?

Introduction

Research of Chinese language as a second language (CSL) is lacking (Linnell, 2001). In the larger context, second language acquisition (SLA) research provides few recommendations for the teaching of second language (Ellis, 2005). Consequently, recommendations for teaching of Chinese language informed by research are lacking. In many classrooms, teachers adopt the notional-functional approach in language teaching. This approach employs the 'present-practice-produce' (PPP) method to cultivate the functional and social aspects of competence (Ellis, 2005). There needs to be more research on alternative pedagogies for the teaching and learning of Chinese language in non-native speaking countries.

In this Knowledge Age, Information and Communication Technologies (ICT) is recognized as the key mediator and enabler for knowledge building as it provides access to information and communication among team members. ICT is also regarded as one of the 21st Century life skills (North Central Regional Educational Laboratory, 2003). However, ICT has not been widely leveraged to transform the teaching and learning of Chinese Language in many countries. This may be due to the perception and beliefs among Chinese language teachers about the use of ICT. Some Chinese language educators perceive the main function of ICT is to motivate the learners and allow them access to a wide range of Chinese resources conveniently and efficiently (The Chinese Society of Education, 2004). There are Chinese language teachers who believe that the use of traditional resources e.g. paper, pen and book is sufficient to ensure quality teaching. In their opinion, the use of technology does not offer additional benefits for Chinese language learning (The Chinese Society of Education, 2004). Other Chinese language teachers fear that the use of multimedia to represent the meaning of written text might impose a

singular visualization in the learners' minds, reducing and limiting the need for learners to make their own visualizations of the written text (Li, 2004).

The prevalent use of ICT in Chinese language classrooms consequently supports a didactic mode of teaching (Chen, 2004). Many teachers use multimedia lesson resources as an adjunct to the blackboard during lessons, for example, projected pictures and background music are used to enhance the appreciation of passages being read. The exploration of ICT to enhance students' interaction during learning is minimal (Chen, 2004).

The use of ICT in Chinese language education in Singapore

This study was conducted in Singapore where the education system has moved from an efficiency-driven paradigm to an ability-driven paradigm that focuses on realizing potentials of all students. The Ministry of Education (Singapore) provides support and flexibility for schools to explore approaches that could enhance quality interaction between teachers and students in the classroom (Ministry of Education, 2004a). This support and flexibility is crucial for the advancement of new approaches that leverage technology to enhance teaching and learning in the classrooms.

Under this context, the Chinese Language Curriculum and Pedagogy Review Committee (CLCPRC) was set up to review the teaching of Chinese Language in the year 2004. Teachers in Singapore have a more positive outlook towards the use of ICT in teaching and learning. The majority of teachers believe in using ICT to support engaged learning practices (Ministry of Education, 2005). Riding on this positive attitudes towards the use of ICT, the CLCPRC have recommended the exploration of more advanced uses of ICT (Ministry of Education, 2004b), these include the use of media rich interactive content e.g. games and animation to support the recognition of Chinese characters; the use of text-to-speech and voice recognition to enhance

learning of oral communication skills and the exploratory use of mobile SMS messages and Instant Messaging (IM) to increase opportunities for use of Chinese. There is emerging evidence of Chinese language teachers who are leveraging emerging ICT in Chinese language education e.g. Weblogs (Tan, Teo, Aw & Lim, 2005).

Research Goals

This study is an attempt to leverage Audioblogs, an emerging technology, to enhance the teaching and learning of oral conversational skills among students in the elementary schools in Singapore. In our schools, students are taught oral communication skills that enable them to read and converse in Chinese. These skills are assessed at the end of six years of elementary school education through an oral examination that has two components: oral reading and picture conversation. The oral reading component of the examination requires students to read an unfamiliar passage with the correct pronunciation, intonation, pace and expression. The picture conversation component of the examination requires students to talk about an unfamiliar picture. Given an average class size of 40 students, current approaches used by many teachers to teach oral communication skills usually include group reading, that is whole-class choral reading of passages; or the selection of students to read passages or converse about pictures. Occasionally, teachers might tutor students individually. These approaches do not provide all students with sufficient opportunities for practice. In addition, students may not be provided with feedback of sufficient quality and quantity to scaffold the learning of these skills. It is perhaps timely to explore other approaches to support students' acquisition of oral communication skills. Audioblogging has been identified as a tool that could potentially enhance the teaching and learning of oral conversational skills.

The pedagogic use of blogging is grounded in Vygotskian theories of social meaning making (Ferdig & Trammell, 2004). Weblogs provide a medium to capture personal thoughts, which are reified in the form of text or speech. By putting these artifacts onto a social plane, the larger community can appropriate them in the social construction of knowledge and meaning making. The scaffolding of the meaning making process through commenting with and about ideas in Weblogs further enhances learning. For example, students could internalize their knowledge by reviewing their posts and reflecting on what they have written and the comments provided by their peers or teacher.

Weblogs have been used to enhance the learning of language and music. Teachers using Weblogs in English writing classes have reported improvements in students' writing. The use of Weblogs could have provided students with a collaborative environment that allows them to give and receive feedback (Kennedy, 2003, as cited in Barlett-Bragg, 2003; Ward, 2004). Chong & Soo (2005) similarly report that blogging facilitated the exchange of ideas between peers and the analysis of peers' posts in their Music classes. In the teaching of Chinese language, Tan, Teo, Aw and Lim (2005) experimented with Weblogs for students' reading portfolios. Students used blogs to exchange ideas and reflections on their readings. The post-project survey revealed that students perceived an improvement in their writing. Students attributed this improvement to the opportunity to view how others wrote in the Weblogs. Students also indicated that they were encouraged by the positive comments from their peers.

Audioblogging is an extension of Weblogging, where Webloggers substituted the bulk of the text posts with voice recordings (The Guardian, 2004). Podcasting is essentially Audioblogging, coupled with the ease of automatic syncing of audio files to portable mp3 players. Some Institutes of Higher Learning had begun to harness the potentials of Podcasting.

For example, Middlebury College uses Podcasting in second language classrooms (Chapin, 2005); Stanford University has partnered Apple iTunes to make available faculty lectures, learning materials, music and sports information (Stanford Report, 2005); interviews with faculties are made available through a San Jose State University lecturer's Weblog. K-12 schools are also fast catching up. Schools are beginning to use Podcasting for announcements and students expressing themselves on wide range of topics ranging from food, culture to recollections of personal trips. Podcast directories, such as The Education Podcast Network and the RECAP Podcasts for educators, schools and colleges, are also emerging in the internet.

Although there are emerging indicators of increased adoption in the use of Audioblogging for learning of oral conversational skills, research in this area is lacking. This study is an attempt to fill this gap. We use the following questions to guide us in our study:

- 1. How are Chinese language oral skills being taught in schools? What are the gaps?
 Following up with the gap analysis, how could Audioblogs be used to enhance the teaching and learning of Chinese language oral skills?
- 2. How do the teachers and students react to the use of Audioblogs?
- 3. With the use of Audioblogging, are there any effects on students' oral conversational skills?

Method

There are essentially three parts to this study. First, an analysis of the classroom in the pre-intervention phase was carried through observation. Using Activity Theory as a lens, we analyzed the observed situation and identified potential gaps. This provides information for the design of intervention; use of Audioblogging for teaching and learning of oral conversational skills. Next, a pilot study was conducted to gauge the teachers and students' reaction to the

implementation. Finally, a comparison study was conducted to assess the impact on students' learning.

Sample

We conducted the study in three classes at a government co-educational elementary school. All classes had an equal number of boys and girls. The pilot study involved students in two classes. These students were in the sixth and final year of their elementary school education. They were preparing for their oral examinations when the study was carried out. Students in one class were of middle Chinese language ability. There were 18 students in this class. Students in the other class were of low Chinese language ability. The teacher of this class describes their Chinese language ability, "they are the second last class in the year six level." There were 26 students in this class.

The follow-up study of the use of Audioblogging involved 18 fourth year students. The students were of medium Chinese language ability. Simple random sampling was used to allocate the students into two groups, the experimental group and the control group. There were an equal number of students in each group.

There were two participating teachers in the pilot study. One teacher had 8 years of experience teaching Chinese language oral skills. The other teacher had 3 years of experience teaching Chinese language oral skills. They were the Chinese language teachers of the classes involved in the pilot study. The latter teacher was also the Chinese language teacher of the class participating in the follow-up study. Neither had prior experience using Audioblogging to teach Chinese language oral skills.

Procedures

The implementation of the learning environment was studied for 5 months from June 2005 to November 2005. The pilot study started in June 2005 and ended in July 2005. The two teachers planned the lessons and prepared the lesson materials. They instructed their individual classes during the implementation. The process involved introducing the operations of the mp3 hardware and the blogging platform to the students; students were instructed on oral reading skills. They were also familiarized with the oral assessment rubrics. During a lesson, students were allowed to read and record their passage reading. Students then uploaded the voice recording to their respective blogs. Students were finally tasked to visit each other's blogs, listen to their peer's recordings and provide comments on the performance. The comments made by the students were based on the oral assessment rubrics. In total, students had put up 11 posts containing voice recordings of oral readings. Each recording had an average of 2 comments from both peers and teachers.

The follow-up study started in September 2005 and ended in November 2005. One teacher was in-charge of administering the picture conversation pre-test and post-test. The picture conversation pre-test was conducted for all the students before the intervention began. The other teacher was in-charge of the carrying out the lessons. The grouping for the experimental and the control group was transparent to the teacher carrying out the tests.

During the lessons, the same teacher instructed both group of students on picture conversation skills. Students were also familiarized with the oral assessment rubrics. The experimental group carrying our Audioblogging were able to record their voices and upload them to the blogs for discussion online; the control group's discussion on picture conversation was restricted to the classroom face-to-face interactions. In the short one-month implementation,

the students had made 4 posts containing voice recordings of picture conversations. Each recording had an average of 2 comments from both peers and teachers. A post-test was carried out at the end of six weeks to assess the students on their picture conversation performance.

Results and Discussions

This section is organized according to the research questions. First, let's recapitulate the first question: "How are Chinese language oral skills being taught in schools? What are the gaps? Following up with the gap analysis, how could Audioblogs be used to enhance the teaching and learning of Chinese language oral skills?"

Teaching and learning of Chinese language oral skills in the participating classes

We observed the teaching and learning of Chinese language oral skills in the classes participating in the pilot study. The teaching and learning of oral reading skills was similar in both classes (Figure 1). This activity began with individual students reading a passage out loud. This passage was projected onto a screen in front of the class using an Over Head Projector (OHP). The teacher would listen and then involve the class in the discussion on the oral reading skills demonstrated. This resulted in the construction of a common understanding of oral reading performance, albeit one dominated by the teacher's authoritative voice. This iteration continued until the teacher was satisfied with the students' oral reading performance. The teacher would give another passage to the class for additional practice.

The teachers evaluated students' oral reading skills based on their pronunciation, intonation and fluency. The students were required to read the words in the passage with the proper pronunciation. Students reading the passage were also required to read the sentences smoothly without unnecessary pauses and with feelings. This is a reflection of students' ability to interpret the meaning of the passage.

The teaching and learning of picture conversation skills was similar to that of the oral reading skills. The teachers evaluated students' ability to elaborate and talk fluently about the picture. Students were required to describe what they observed in the picture and elaborate on their interpretation of the actions of characters in the picture. Students were expected to speak about the picture smoothly and in an orderly manner.

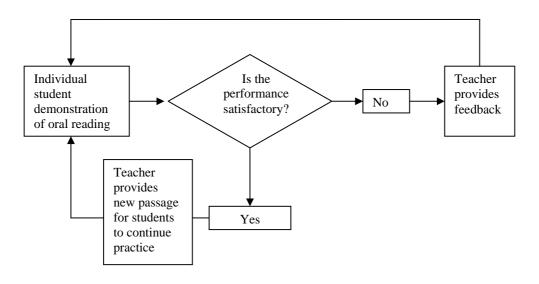


Figure 1. The teaching and learning of oral reading skills

Analysis of the activity of learning Chinese language oral skills

Teaching and learning of oral communication skills was analyzed, using processes advocated in a framework based on Activity Theory (Jonassen & Rohrer-Murphy, 1999). The social-cultural underpinnings of Activity Theory are consonant with observations of the socially constructed meaning of Chinese language oral communication performance in the classes. In addition, Activity Theory (Engeström, 1987) has been used in the analysis of learning environments to provide an understanding of Activity systems comprising of individuals, artifacts and the community (Barab, Barnett, Yamagata-Lynch, Squire, & Keating, 2002; Yamagata-Lynch, 2003;

Kain & Wardle, 2005). In the local context, Activity Theory has been used to conceptualize the formation of identities in Communities of Practices in schools (Hung & Chen, 2002) as well as to develop a framework for project work (Hung & Wong, 2000). These studies bring to the fore the importance of the transactional interactions between components in the Activity system for learning. More importantly, they bring to our attention the need to have a holistic perspective of the Activity system during planning for learning.

We carried out the analysis of the activity of learning Chinese language oral communication skills following the processes outlined in a framework using Activity Theory to analyze learning environments (Jonassen & Rohrer-Murphy, 1999). These processes provided insights into the goal of the learning community when engaged in learning Chinese language oral communication skills, the components of the classroom Activity system, the Activity structure undertaken to learn the Chinese language oral communication skills, the context in which the learning activity takes place and the transformational interaction between components in the Activity system.

Students and teachers had a common goal in learning Chinese language oral communication skills. Insights into the goal of the learning community were gleaned by asking the students and teachers what they expected to achieve at the end of the oral communication skill lessons. The teachers were clear that at the end of the Chinese language oral communication skills lessons, students should to be able to perform well in their oral communication assessment. Students too felt that their goal was to learn to perform well in their oral communication assessment. The common goal was therefore good performance of Chinese language oral communication skills by students during Chinese language oral communication assessment.

To attain this goal, students had to act on their Chinese language oral communication performance. Students in the Chinese language classes were the subjects of the Activity system. They acted on the object of the Activity system - their Chinese language oral communication performance - improving and moving it towards the goal of producing a good Chinese language oral communication performance during assessment. Mediating this activity were the oral communication practice sheets flashed on the OHP, the rubrics for assessment, the feedback provided by the teacher and the oral performance of the class. Aside from the oral communication practice sheets flashed on the OHP, most of the mediation of the performance was carried out orally. The ephemeral nature of oral comments and performances did not allow the students access to their performance and comments after the moment. Students were not provided the opportunity to reflect and internalize what was thought of their performances and the context that bore fruit the thoughts.

The classroom community participating in this activity was made up of the teachers and the students. The teachers in this activity performed the role of evaluator of performance. Students rarely externalized their evaluation of their Chinese language oral performance. They did so only when asked by the teacher. Students were involved mainly in the role of producing the Chinese language oral performance. This division of labor has an implication for the agency of learning to improve Chinese language oral performance. Although improvements to the Chinese language oral performance were constructed in the social environment of the class, the evaluation of the object, the Chinese language oral performance, resided largely with the teacher. Students were prompted to evaluate performances occasionally but the final evaluation was not "negotiated" with others in the community. Rather, the students deferred the evaluation of their performance to the teacher. Consequently, the division of labor in the community reduced the

students to mere producers of Chinese language oral performance, relying on the consciousness of others in the community, the teacher and selected students to decide on the quality and consequently actions to be taken to improve the product. Thinking and doing are inextricably linked in any activity (Engeström, 1987). Given students' lack of opportunity to think and evaluate their performance, it is not surprising that they were not able to produce a good Chinese language oral performance.

The rules and norms in the Activity system do not support the negotiated evaluation of Chinese language oral performance. The teachers used an Initiate – Response – Feedback discourse structure during classroom interactions. Students did not have any rules, which governed their interactions with each other. Furthermore, the rubrics for providing feedback on Chinese language oral performance were told to the students but not reified. Students thus did not have an artifact to refer to during their interactions with other students. To summarize, the rules for producing a good Chinese language oral performance resided in the hands the teachers and more importantly amplifies the voice of the teacher, at the expense of the voices of the students.

Students in this Activity system performed many actions. Some of these actions, for example the identification of the rubrics for good Chinese language performance, were internalized by the teacher and thus were carried out on the level of operations. Students did not have the opportunity to externalize and then internalize these rubrics. The identification of the rubrics for good Chinese language oral performance was still a very conscious action. An implication for the activity of Chinese language oral performance was that the students were faced with a considerable cognitive load during a Chinese language oral performance.

The interactions between the various components created tensions that necessitated innovations. First, the tools used to mediate students' actions on their oral performance were not readily accessible. Second, the division of labor within the class did not empower the students with sufficient agency to change their oral performance. Third, rules of interactions in the class community did not afford the students a voice in evaluating their performance. Fourth, the Activity System as a whole did not provide the students an opportunity to raise their consciousness of Chinese language oral performance. Many actions performed by the students were yet to become operations. This necessitated students to think about them increasing the cognitive load invested in the Activity.

Designing an environment for learning Chinese language oral communication skills mediated by Audioblogs

In our efforts to improve the learning of Chinese language oral communication skills, we have designed a learning environment mediated by Audioblogs (Figure 2). In this environment, Audioblogs can be perceived as a tool that mediates the interaction between the subjects, the students; the object, the students' Chinese language oral performance; and the class community. Through the mediation of interactions between these components, this environment facilitates the dialectic or transactional interactions between the components. This transactional process is the essence of social constructivist learning (Hung & Wong, 2000).



Figure 2. An example of a student's Audioblog

Audioblogs provides the subjects a medium to reify the Chinese language oral performance of students. Reification of the performances creates artifacts of the Activity System. Students can use these artifacts as a reference for their performance. For example, students can model their performance on examples that the community rated positively. Students could also learn from mistakes identified in performances of other students. Audioblogs hence mediate the dialectic between the object of the students' actions, their performance; and the subjects, the students. This dialectic between object and subject alters students' consciousness about their Chinese language oral performance as well as the performance itself.

In this environment, Audioblogs has the potential to mediate the interactions between the subject and the community. For this to happen, the rubrics for providing feedback on Chinese language oral performance had to be freely available to all in the community. This allows all in the community access to the terms and language for interacting. Rules of interactions had to be re-drawn. Students and not just the teacher were required to provide feedback and comments to

other students' Chinese language oral performance through Audioblogs. Time was allocated for students to use Audioblogs to interact with other students. The innovations in the rules mediating the students and the community enabled students to use Audioblogs to work with other students to improve their Chinese language oral performance. The dialectic between the subject of the activity, the students, and the community leads to changes regarding how they interact and work together.

The introduction of Audioblogs into the Activity System also mediates the action of the community on the object. To tap on the potential of Audioblogs to mediate the action of the community on the Chinese language oral performance, innovative ways of dividing the labor and work towards changing the object were necessary. Students had to take on the role of evaluators of oral performance. This role was in addition to their role of producing a Chinese language oral performance. The teacher had to relinquish the role of being the sole evaluator. Instead, the teacher facilitated and guided students' comments about the Chinese language oral performance.

In summary, the design of the learning environment mediated by Audioblogs necessitates innovations in the components of the Activity system. These systemic changes reduce inherent tensions in the Activity system. It also allows Audioblogs to mediate the interactions between the subject, community and object. These interactions are the "heart of the activity system" (Hung & Wong, 2000) and are crucial to learning in a social constructivist vein.

Principles of language learning in an environment for learning CL oral communication skills mediated by Audioblogs

The design of the learning environment was also based on principles for the instruction of second language as put forward by Ellis (2005). The six principles we have adopted support and

enhanced interactions necessary for second language acquisition. The principles are as listed in Table 1.

Principles of language learning

- Developing a rich repertoire of formulaic expressions and knowledge of grammatical rules
- Consideration for the learner's 'built-in syllabus'
- Opportunities for extensive L2 input
- Opportunities for output
- Opportunities to interact in the L2 is central to developing L2 proficiency
- Consideration for individual differences in learners

Table 1. Principles of instructed language learning (adapted from Ellis (2005))

The use of Audioblogs enabled students of weaker Chinese language oral skills proficiency, to acquire formulaic expressions when they listened to the oral performance of stronger students. The production of Chinese language oral performance by both weak and strong students allowed them to demonstrate knowledge of grammatical rules. Through the listening of peers' oral performances in Audioblogs, students receive extensive inputs, which serve to develop their individual 'built-in syllabus'. The use of Audioblogs, provided every student with an opportunity to produce an output, an individual oral performance using their own words. Audioblogs facilitated interactions between students by allowing students and teachers to listen and comment on the oral performances in Audioblogs. With the commenting feature in Audioblogs, teachers are also able to take into account the individual differences of the students and provide appropriate comments based on the student's current level of oral skills proficiency.

In summary, the use of Audioblogs affords students opportunities to engage each other in the social construction of language essential for children's language development (Halliday, 1979).

How do the teachers and students react to the use of Audioblogs?

We interviewed the students and teachers at the end of the pilot study. An interview was conducted with the teachers at the end of the first implementation to gather their feedback on use of Audioblogging for learning Chinese language oral communication skills. A focus group interview was also conducted to obtain feedback from the students.

Both teachers observed improvements in recordings of students' Chinese language oral performance in the Audioblogs. One teacher mentioned that the students were more confident and "read using a louder voice, and they felt natural when reading." The observations made by the teachers and students' feelings about the use of Audioblogs will be used to provide insights into the role of Audioblogs in mediating Chinese language oral performance.

Audioblogs enabled the students to reify their performances. The teachers observed that the students "welcomed the idea of being able to listen to others' recordings." The teachers also observed that the students "on their own, will seek out recordings that have good comments to listen." Many students were then observed to improve on their weaknesses and mistakes after listening to the recordings of other students. The teachers had the perception that students did not like to listen to their own recordings.

The observations made by teachers were somewhat supported by findings from the focus group interview with the students. Students perceived that listening to voice recordings on the Audioblogs of other students was beneficial. One student mentioned that listening to Audioblogs improved his pronunciation "some words which I don't know and my friends know and I heard he said and we write the *hanyu pinying* (Chinese phonetics) in the passage paper and we know

how to read." Another felt that listening to the Audioblogs of other students helped her to be more expressive "sometimes in the passage when you need to strengthen the sound something like that if you didn't you can learn from them." Yet another student was able to better understand how to pace his reading after listening to Audioblogs, "If our reading speed is too fast if we listen to other people then we can we will know how to sometimes the speed must put slower sometimes the speed must put faster."

There was no evidence that the students did not like to listen to their own voice recordings. Instead the students felt listening to their voice recordings on Audioblogs helped improve their Chinese language oral performance. One student mentioned that listening to the voice recordings helped him to be more expressive, because after listening he "...could also change my feelings." Another student indicated that listening to his voice recordings on their Audioblogs allowed him to change the speed of his performance, "listen if too fast delete away then read another then do it slowly."

These findings from the interviews emphasize the importance of creating a communal resource of audio recordings. Audioblogs had a strong mediating role in the interaction between the student and their Chinese language oral performance. Chinese language oral performances reified in Audioblogs became referents for acceptable performances. Listening to these products in turn changed the students' consciousness of Chinese language oral performance leading to the production of new and improved Chinese language oral performances. There were also indications that comments made by other students became exemplars of Chinese language oral performances.

Commenting on Chinese language oral performance was an action that emerged as a result of the opportunities afforded by the introduction of Audioblogs. The teachers observed that

the students were encouraged by each other's comments. Initially, the students posted simple one-word "good" and "bad" comments. These the teachers felt would not benefit the students. Consequently, the teachers provided scaffolds to enable the students to improve the comments made. The teachers directed the students to the rubrics for assessing Chinese language oral performance, and modeled commenting on Chinese language oral performances using the rubrics. After this teachers observed that the students were able to give better comments that enabled other students to improve their Chinese language oral performances. An interesting point of note, teachers observed that some Audioblogs contained comments of opposing views. For example, one student would comment that the Chinese language oral performance was read at an appropriate speed while another would comment that the performance was too fast. The teachers mentioned that when such situations arose they would weigh in with their comments. The teachers noted that the students often asked to make another recording after reading comments about their performances.

Findings from the focus group interview with the students elaborate on the benefits of comments from the teacher and students; as well as the action of commenting. Students felt that comments from the teachers helped them be more expressive, "sometimes teacher commented that I reading too fast and no feeling and I would change it the second time when I recording better second recording." Comments made by the students appeared to support the initial observations by the teachers that comments were too simple to be beneficial, "one boy from my class go and comment me just the word 'not good' then I don't know where is not good I don't feel really "zhun" (precise) just 'not good' don't tell me which part not good." This comment also surfaces the frustrations of the student receiving the comment. There was evidence that the comments improved with scaffolds provided by the teacher. One student noted another student

commenting that he had forgotten to pause at full-stops; another student noted that he was given feedback about words he had not pronounced clearly. It was interesting that some students expressed that the action of commenting led them to change their Chinese language oral performance. One student mentioned, "I give comments to other people like that some part they all didn't strengthen, then I hear to my recording of the same passage, then if I never strengthen that part I will remember". Another student adds, that she commented on the pronunciation of other students "....and I hear mine got the same mistake like his, I check."

The posting of comments by the students and teachers highlights the role of Audioblogs in mediating the interaction between the students and the class community. Comments made by the student were an explication of an individual's consciousness of the Chinese language oral performance. These comments reified in the Audioblogs become part of the collective community consciousness. These when read by individual alters their consciousness of Chinese language oral performance leading to explication of ideas that again alters community consciousness. Hence together with supportive rules, Audioblogs provide a tool for community consciousness of Chinese language oral performance to alter student consciousness and vice versa. The explication of individual consciousness would not be possible without changes to the classroom community's effort to produce a Chinese language oral performance.

Audioblogs provided a tool to mediate the collective effort of the community to improve Chinese language oral performance. Through the division of labor in the community, the students were now required to evaluate Chinese language oral performances. Audioblogs enabled the students to perform this role by making the Chinese language oral performances as well as comments posted by the students and teachers readily available. Students could evaluate performances at their own pace. To support their evaluation of Chinese language oral

performances, the students could look at examples of other evaluations made by the community. The teachers assuming the role of facilitator supported the students' efforts by scaffolding and modeling the evaluation of performances. Without the reification of artifacts on Audioblogs, such a community effort to change Chinese language oral performance would be difficult.

In summary, the findings of the pilot study provided validation of the environment for learning Chinese language oral communication skills mediated by Audioblogs. This pilot study however was only carried out to evaluate the design of the environment when applied to one component of Chinese language oral performance during assessment, oral reading. Only qualitative data was collected. We did not collect quantitative data to substantiate the efficacy of the environment. A follow-up study was implemented to evaluate the design of the environment when applied to the other component of Chinese language oral performance, picture conversation. Quantitative results from tests on the students' picture conversation performance before and after the implementation was collected. A focus group interview was conducted to collect qualitative data after the implementation.

With the use of Audioblogging, are there any effects on students' oral conversational skills?

The teachers felt that that Audioblogging helped the students improve their Chinese language oral performance during the picture conversation assessment. Students in the treatment group had higher average gains in their test scores (M = 0.86, SD = 1.03) than the students in the control group (M = 0.37, SD = 0.85). The difference in the average gain between the groups was not statistically significant t(31) = -1.51, p = 0.07.

The results of the focus group interviews were congruent with the opinions of the students in the pilot study. The reification of Chinese language oral performances in Audioblogs was important in mediating Chinese language oral performance. Students felt that listening to

their own Audioblogs improved their ability to converse about the picture. One student indicated that he was better able to organize his conversation about the picture after listening to his voice recording, "before we use the mp3 player, I simply like here got one picture I simply jump. After I use then I know when I listen here then jump to there very confusing, then after that I know how to first." There was a strong indication listening to the Audioblogs of other students improved students' ability to converse about the picture. Students with weaker Chinese language ability mentioned that after listening to students with stronger Chinese language ability they were able to improve their use of Chinese language vocabulary, "they use better vocabulary and we can learn from them." An example was, "I don't know how to say the part then I listen to my friend one I know how to say ... I don't know how to say 把柄, after I listen I know how to say." One student brought to our attention that listening to the recordings of weaker students also helped improve his Chinese language oral performance, "you can learn what is their mistakes and don't make their mistakes, like sometimes they use the wrong words."

Students in the follow-up study reiterated the importance of comments and the action of commenting. They felt that teacher comments were helpful in identifying what was wrong when they conversed about the pictures. Students felt that comments made by other students helped to improve the pace of their conversations about the picture, "....you can know how to read, not fast slow fast slow but balanced," as well as the vocabulary they used to express their ideas about pictures, "at first I don't know how to say this 'fitness area' in Chinese then one girl from China said that it's 'jian4 (the word jian in the four sound) shen1 (the word shen in the first sound) chu4 (the word chu in the fourth sound)', vocab lah (a Singaporean expression)." More importantly, there was also evidence that making comments raised the students' consciousness of Chinese language oral performance. One student mentioned "sometimes when commenting on

some mistakes, that we will realize that we may have the same mistakes but earlier on we did not realize."

Interestingly, the students in the follow-up study demonstrated an awareness of their roles as evaluators of Chinese language oral performances. The students examined the recording of performances to form their own opinions about improving their Chinese language performance. The students mentioned they did not rely on teacher comments alone to learn, they "still had to listen to other's recordings" then "you have to go back to what you have recorded and compare what your classmate has said (in the comments)." This example highlights the use of Audioblogs to support the roles of members in the community in their collective effort to improve Chinese language oral performance.

Conclusion

In this study, we embarked on an exploratory journey into the use of an emerging technology, Audioblogs, for teaching and learning of Chinese oral skills. Grounding on Vygotskian theories of social meaning making, we seek empirical evidence to support or refute the potential benefits of this technology. Using Activity theory as a lens, we realized that in the current classroom practices, teaching and learning of Chinese oral skills did not give agency to the students. The teachers directed classroom interactions and evaluated student's performance. The students were also not empowered with evaluation criteria to guide their own learning. The large class size of 40 students aggravated the problem. A learning environment supported by Audioblogs addresses the problems by providing a space for students to make public their oral artifacts, which serve as objects for comments, reflection, and appropriation. The empirical evidence showed that by providing students with an Audioblogging environment as well as a

platform to solicit comments and feedback of performances, there was an improvement in the students' ability in picture conversation.

Through our efforts to support the learning of CL oral communication skills with Audioblogs, we have recognized the need to innovate at a systemic level. The results of the study lend support for the framework (Jonassen & Rohrer-Murphy, 1999) used to design the learning environment. Often the introduction of new technologies does not consider the perturbations they bring to the Activity system they are introduced into. Our systemic approach to designing for the innovative use of Audioblogs resonates with the design philosophy of Hung and Wong (2000) when designing for computer supports for project work.

We feel that the key to innovating the teaching and learning of CL with technology is the re-conceptualization of innovation with technology. Rather than look for innovative technologies to support existing teaching practices, we advocate an object-oriented pull for systemic innovation. If new technology merely supplants old technology without concomitant systemic changes we would be echoing voices of past failures, that new technologies do not add value to the old technologies (The Chinese Society of Education, 2004). However, when innovations take place at a systemic level across all components of the Activity system, opportunities are provided for the emergence of new practices with new technologies.

Building on this exploratory study, there are several ways we could move forward. A comparison study using a larger sample could be undertaken to determine the effectiveness of Audioblogging on students' picture conversation test performance. Qualitatively, we could also explore how to engage the students in greater degree of reflection with Audioblogging. For instance, how we could scaffold for productive comments, and how we could help the students to cope with conflicting comments. We are also interested in empowering students as agency of

learning by using Audioblogging not as a practice field, but as a platform for their voices to be heard. For example, the students could assume the role of a radio DJ to broadcast their programs. It would be a powerful environment for learning that benefits the students in both the cognitive and emotional domains.

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