Design and Implementation of an Internet-based Virtual Reality Environment for Language Education

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Abstract

This paper describes the design, implementation and results of an internet-based virtual reality language education environment. The project was undertaken for the purpose of improving the quality and quantity of real-time native English speaker input in the lives of students of English in EFL environments by creating a self-sustaining virtual community for language learning. The project was implemented over one year and included formal English lessons, an international virtual reality community and informal language-learning activities. The virtual environment included a native English-speaking host and easy access 24 hours a day to large numbers native speakers of English in other virtual environments. The design and implementation of the project, including lessons and providing access to native speakers, were successful. The goal of the participants creating a self-sustaining community was unsuccessful. Recommendations for similar projects include well-timed publicity, an engaging environment, attention to the ease of use for participants and mastery of the computer network on which the virtual environment is distributed.

Abstract (Japanese)

この論文はインターネット・ベースのバーチャル・リアリティを使用した語学教育環境のデザイン、実際の運用とその結果についてである。このプロジェクトの目標は、EFL 環境で英語学習者に対するリアルタイムのネイティブ・スピーカーによるインプットを増やすことであった。そのため、ユーザー自身が環境の持続に協力する語学教育環境を創造した。1年間運用したが、これは授業中の正規レッスンのほか国際的なバーチャル・コミュニティ、授業外の語学学習活動を含む。さらに英語のネイティブ・スピーカー1名がワールドに管理人として駐在した。また世界中の多数のネイティブ・スピーカーが24時間アクセス可能であった。プロジェクトのデザインと運用（レッスンとネイティブのアクセスも含む）においては成果があったが、ユーザー自身が環境の持続に協力するという点においては成果が見られなかった。タイミング良く広報活動をおこなうこと、魅力のある環境、ユーザーにとっての簡便性への気配り、バー

チャル環境を設定するコンピューター・ネットワークを掌握することを類似プロジェクトへ提言する。

Introduction

Students of English in Japan have very few opportunities to interact with native speakers of English. Student/Teacher ratio and time limits make it nearly impossible for even the best-designed syllabus to provide students with the adequate practice time to reach their fluency goals. In addition, the classroom environment limits the quality and variety of interactions to the point where nearly all communication is contrived. InterZone University http://www.hannan-u.ac.jp/~wilson/izu/intzoneu.html provides EFL teachers the opportunity to use class time to prepare students for communication experiences, then go online where they can actually interact with native speakers of English in an ESL-like community setting.

Virtual interactions are no longer done simply for the sake of novelty—they are more and more being used to meet the social and practical needs of everyday life. We may not think that these interactions are of the same "human" quality that live, interpersonal interaction provides, but it is a real part of modern life, it is largely linguistic and should not be ignored by language teachers.

EFL/ESL Environment

Any first year student of language teaching can probably describe the difference between EFL and ESL--ESL is taught in environments where English is the primary or native language and EFL is taught in environments in which it is not. The language environment of each is different, so the most effective teaching approaches are also different. For example, EFL students need more in-class practice with situations they are likely to encounter in the EFL environment (the roles of host, tourist, and guest), while ESL students need preparation for out of class practice for completely different situations. ESL has been expanded to include environments where English is used as a *lingua franca* for education, government, or business within a non-native English speaking environment (Brown 1987). Other distinctions, such as English as An Additional Language, and English as a Language of wider Communication have been described, but the fundamental difference, which affects how language teaching is approached, has been between EFL and ESL.

ESL education can be seen as an interactive process involving the student's

experience in the classroom and the outside world. EFL, on the other hand, can be seen as preparation for future interactions. To take full advantage of the environment, the class should be relevant to what the student experiences outside the class. The more input-limited EFL environment requires that more listening and verbal interaction take place in the classroom. In short, in EFL more of the process takes place in the classroom. The reason we distinguish between ESL and EFL is to design the syllabus and teaching approach to suit the environment of our students most effectively around this difference.

The decision to teach an ESL class or EFL class has traditionally been based on the principal language of the region the student lived and that served as a reasonably good criteria, because the principal language of the region largely determined the language of interaction of the student.

In recent years, 24-hour access to native speakers of English through computer-based media in which English is the common language has made its way into the mainstream. This is more than a resource, it is a major change in the student's language environment. This means that the needs of students have changed, as well as the most effective approach to teaching. For students actively taking part in online communication, a pure EFL approach is no longer meeting their needs as they increasingly find themselves in an ESL-like environment. This trend shows every sign of continuing into the distant future as access and quality of the medium improve. The question of which approach to take is more difficult than it has been in the past, because each student can decide how much English they will make a part of their life. For this reason, it is likely that the community will be made up of those who have access to the online community and make it part of their lives, and those who don't. Classes will become a mix of students who are living in an ESL-like environment and those who are not.

This approach to the EFL/ESL distinction leads us to ask the following question once again: are we teaching what our students need and are we doing it most effectively?

The typical EFL syllabus prepares students for travel or meeting people from other countries who travel to Japan. In the past, this is the extent of what the majority of our students could have hoped to experience. Now, students can spend as much time as they wish in an English environment. It is very likely that there is already more online-interaction taking place than the face-to-face interaction for which we are

spending so much time preparing students with our current EFL syllabus. Are textbook makers preparing chapters on how to "chat" or presenting students with the skills for meeting people and making and maintaining friendships online? Our student's language needs are changing. Is our syllabus design and teaching approach changing to meet these new needs as well? A look at the textbooks available would suggest not.

Purpose

The IZU project is attempting to make the benefits of the Internet more accessible to students and provide them with language learning experiences in the English of the internet. IZU is a cyber-community of native English speakers and speakers of English as a second language. It provides a sympathetic environment where non-native speakers of English can come and interact in English. It also serves as a springboard into the non-sympathetic, English-speaking environments and communities of the Activeworlds Universe http://www.activeworlds.com/community/index.html. This provides students with a language-learning tool, which at this time is only rivaled by living in a native-English speaking country.

Although not speaking specifically about virtual reality, McCormack and Jones (1998), describe the distributive benefits of online educational environments:

In a Web-based classroom, the relative geographic locations of the students and the teacher need not significantly change the quality of the learning experience. Students can study from wherever they happen to be with whatever educational institution best suits their needs. This means that learning is no longer restricted to the physical buildings of the learning institution, and consequently the problems of overcrowding start to disappear. Education can proceed without major reorganization of students' lives, making them feel more in control and hopefully increasing their motivation.

The ultimate purpose of the project is to improve the effectiveness of language study in regions where English is not used as a main language of communication and as a medium for distance and internet-based education.

Design of the Environment

Palloff and Pratt's work (1999) was indispensable in designing the educational environment. They stress the importance of community in the computer-based educational model. They describe the following elements as important to community:

- The ability to carry on an internal dialogue in order to formulate responses
- The creation of semblance of privacy both in terms of the space from which the person communicates and the ability to create an internal sense of privacy
- The ability to deal with emotional issues in textual form
- The ability to create a mental picture of the partner in the communication process
- The ability to create a sense of presence online though the personalization of communications (Pratt, 1996)

We kept these elements in mind when designing the environment and attempted to meet or exceed them with the virtual design.

Computer and Operation System

While originally planning to use the Linux operating system, the Windows 2000 system proved to be equally or more stable in informal tests at two universities. The computer running the Windows system was devoted entirely to the InterZone server for the virtual environment.

Virtual Reality Medium

Activeworlds, http://www.activeworlds.com, multi-user virtual reality environment, within which InterZone University can be found, has over 20,000 visitors per day. Students familiar with AW have the opportunity to access native speakers of English 24 hours a day, 7 days a week. These students have an English-speaking environment at their disposal, making it possible to spend as much time communicating in English as they wish.

The spacial metaphor of virtual reality promotes the use of language similar to that of face-to-face interaction, which can be seen in no other form of distance communication.

The Campus Metaphor

To create an active international social and language-learning community, we

needed to attract both native-English speakers and language learners. We chose the campus metaphor because it is familiar to students and allows them to enter into this new medium with an active schema. In addition, the traditional campus has many features that are consistent with our design goals of creating an environment that promotes learning and socialization.

The campus can be separated into four functional areas. The campus center, which is the first area that participants see when they appear in the world, serves as a socializing area. The circular zone surrounding the campus center contains interactive learning activities. The third area surrounding the interactive learning area, which extends potentially to infinity, is a personal building area for participants. At random positions throughout the environment, there are also common building areas, which are used for collaborative projects.

The central area was designed with the goals of creating an attractive, open space that is comfortable and stimulates the participant to wander around. Numerous signs pointing to the various points of interest are easy to see and set up with the intention of making navigation of the environment easy and intuitive. This area includes several stations that contribute to these goals. A voice channel selection area allows participants can choose the language they wish to use to interact. A Browsing area that contains quotes and links to articles of interest to teachers and people interested in learning through virtual reality. A garden area serves as an example of using greenery in building and adds to the visual appeal of the environment. A teleport station allows people to click on signs that take them directly to the location of their choice within the environment. There is also a pavilion where "power point-like" 3-D presentations are displayed. This area is the point of departure for a teleport click-tour of the environment. This area is equal in size to two square city blocks.

Just outside the campus center is an interactive area. This area contains a space where people can learn to build within the environment. To the west is a space that contains links to web-based self-study English lessons. There is also a maze that was built by a participant. This maze was adapted to serve as a Total Physical Response listening exercise. Also in this area is a trampoline that gives new participants a strong sense of the immersive 3D experience. As well as the individual goals for each of the interactive activities, this area provides participants examples of the possibilities of building within the virtual environment and an interesting environment to explore and put to use navigation skills.

The personal building area makes of the bulk of the total area of the environment. Participants are free to build virtual reality structures and interactive activities in specified lots, which are separated by roads. Participants are given an area equivalent to one to four city blocks. The building that takes place can be seen as a 3D website, in that it is a place where participants can express their individuality and create links to the World Wide Web.

Building in a "virtual neighborhood" puts participants in constant contact with other participants and contributes to a sense of community, which involves the negotiation of boundaries and stimulates collaborative activities. For larger collaborative activities, common building areas are available.

Peter Anders (1999) describes the importance of building in the virtual community:

> Next to socializing, construction is the chief activity in many domains. Building is a social act. It creates new places for the community, new toys and robots. It involves consultation, cooperation and dialog, strengthening bonds within the community. A builder who has created rooms is likely to return with new plans or modifications. A proud owner will invite guests to enjoy his creation. Building forms commitment in MUD players - in logging off, they leave something behind.

Although the intended readers for Anders' book were the general population of computer users, the language functions that he describes no doubt catch the attention of language teachers.

The Native English-Speaking Host. The native-speaker host served several functions in the project. His main function was to administer the virtual reality system. Since the virtual environment was open 24 hour a day, his location in Seattle, Washington (17 time zones away) made it possible for him to remotely take care of operation of the environment when it was not possible for other administrators to personally be there. This was possible by giving him a password for the virtual environment that allowed him administrative privileges.

He was responsible for checking throughout the day if the server was up and running properly and adjusting the settings when necessary. He also served as host for the world two hours each day, Monday through Friday. In this capacity, he assisted visitors to the world and served as a conversation partner for students, a main

function of the environment. In addition to this, he did the HTML work on the website, which improved the performance of the interactive learning tasks, which were integrated with the virtual world.

Class design

Acculturation. In order for students to take full advantage of the virtual reality as a learning tool, it was necessary for them to become familiar with navigation, and manipulation of the world.

Students were taught navigational skill for use within the virtual reality. These include walking, running, flying and teleport and warp actions. These actions are necessary for interacting within the virtual world and are an integral part of the real world metaphor. Walking, running and flying are accomplished with the keyboard arrow and number keys and teleporting and warping actions are accomplished by clicking triggers within the environment or by use of commands in the menu of the application. When teleporting, the participant's virtual body disappears from one location and appears in another location. When warping, the virtual body is moved very quickly from one location to another without losing visual reference.

Communication could be done with text or voice. A text chat dialog box appears below the 3D display on the Activeworlds application. Text input by participants appears in the dialog display of other participants as well as above the head of the speaker. If participants chose to engage in voice chat, that was done with a separate application that runs parallel to Activeworlds.

Building within the world, provided participants not only with a means to express identity, it also created an intrinsic motivation to communicate. Participants actively searched out information on how to add features to their constructions. As the only source of this information was other participants, building became a major motivation for speech in the social area of the environment.

Lessons. Lessons were divided into three phases. First the lesson content was introduced in the classroom. We used a combination of traditional teacher-fronted classroom instruction and simple presentation of materials inside the environment. This phase lasted the first 30 minutes of class, however normally only 20 minutes were spent teaching, the rest of the time was taken up by class administration tasks and fixing technical problems. Admittedly, this part of the lesson was rather uninspired, but the motivation, anticipation, and immediacy of the following phases reduced the

necessity of contriving a sense of excitement over the introduction of the lesson content, without losing the interest of the students.

The content was created based on interaction that is likely to take place in the virtual reality environment. As non-student participants in the environment come from all over the world, a common topic near the end of the year, when the lesson took place, is how individuals spend holiday times. The immediacy of the application of the lessons requires that they reflect the activities taking place in society as the lessons take place. The lessons were presented in short exchanges, and not extended dialogs. Students must assess the direction of the conversation and adapt. Content was presented as displayed below. Students were then asked to provide responses they would expect to hear for each question, we then shared and edited answers.

Sample lesson content

How was your Christmas Vacation?

_____

What did you do?

_____

Where did you go?

_____

Did you stay with your family?

_____

Did you play with your friends?

_____

Did you make a New Years Resolution?

_____

What are your New Years Resolutions?

_____

_____

_____

Student-to-Student Practice

In this second phase of the lesson, students practiced the target material immediately after it was introduced. The sample here took place after students had covered

Introductions, Good-byes and Small Talk, near the end of the term. They were given directions to begin the conversation with natural introductions, engage in small talk, practice the target material, and then end the conversation naturally. These elements are clear in the following conversation. Clicking on signs in the campus center paired students off instantly by teleporting them to isolated areas on the outer limits of the environment.

Student-to-student Practice

Immigration Officer: This world is a language learning community. It is a place where people learning English can feel comfortable and everyone else can talk to people from all over the world. Enjoy!!

Tatsu: Hello

Akiyoshi: Hi!

Tatsu: How are you?

Akiyoshi: I'm fine thank you, and you?

Tatsu: I'm very bad.

Akiyoshi: Why?

Tatsu: School is tired.

Akiyoshi: I thik so.... How was you winter vacation?

Tatsu: It was so-so. You?

Akiyoshi: It was so—so too. What did you do?

Takao: Did you stay with your family, or play with your friends?

Tatsu: Part-time wark..

Tatsu: And you?

Akiyoshi: I play with my friends in my home town..

Tatsu: Where is hometown?

Akiyoshi: Hamamatsu city.

Akiyoshi: in Shizuoka

Akiyoshi: Did you make new years resolution?

Tatsu: Did you stay with your family?

Akiyoshi: Yes

Akiyoshi: Did you make new years resolution?

Tatsu: My resolution is not go pachinko.

Tatsu: And you?

Akiyoshi: **I will get the job!**

Tatsu: I must go now.

Akiyoshi: **Nice talking with you.**

Tatsu: Thank you. I'm very fun.

Akiyoshi: **Bye.**

Tatsu: Bye.

Practice

The following is an excerpt from a conversation that took place in the Use phase of the class, immediately following the Lesson and Practice phases. The time between when the previous practice conversation ended and this one began is likely to be less than five or ten minutes, the time it takes to find a willing conversation partner.

Lesson Use

Immigration Officer:　Welcome to Simple Geometry - Enjoy building in this world and please observe and respect our Content Guidelines located at www.activeworlds.com/terms.html

Akiyoshi: **hi!**

Takao: hi!

Andre:　hello there

Akiyoshi: **hello!**

Takao: How are you?

Steve: good thanks

[Successful and proper introduction.]

Akiyoshi: **How was you Christmas vacation?**

Andre:　fine... thanks

Akiyoshi: What did you do?

Steve: :)

Akiyoshi: **Did you make new years resolution?**

Andre:　nope...

Steve: I can never keep them so I dont bother these days.

[Successful use of the target material]

Andre:　brb

Steve: k

Akiyoshi: k

This student successfully carried out the introduction and use of the target material. Students have the chance to use the target material five or six times during the Use phase of the lesson in exchanges ranging in length from brief, such as this one, or extended as can be found in the sample dialogs given below.

Incidentally, the use of 'k' instead of typing out 'okay' in response to Andre saying he would "brb" (be right back) is an example of this student picking up conventions of speech that are acquired naturally during their interaction. The examples of this are numerous, occurring in nearly every extended exchange.

Quiz

Quizzes were useful in the class because, although all students' interaction is recorded, the 600+ pages of dialog produced by 18 students over half a year is far too much data to use as a basis for grades. In addition, the students expect some kind of test at the end of the year and given the freedom that they have during class time, we chose to fulfill that expectation.

Quiz

名前＿＿＿＿＿＿＿＿＿＿   学籍番号＿＿＿＿＿＿＿＿＿＿＿＿

はい、いいえだけのような短い答えは１点、長い答えやより良い答えには２点の配点です。意味が分かる限りスペルミスや文法の間違いは構いません。（インターネットチャットではスペルミスは重要でないことになっています。）.

<div align="center">

Starting Conversation

</div>

Give two possible answers for each question.

Hello.

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

What's up?

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

How are you?

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Conversation

Nice to meet you.

_____

_____

Do you come to ActiveWorlds often?

_____

_____

Is this your world?

_____

_____

Where are you (in RL)?

_____

_____

Ending the Conversation

(Answer the questions.)

Where are you from? / Where are you in RL?

_____

Really?

_____

What city?

_____

Have you been to another country?

_____

Where would you like to visit?

_____

How many countries have you been to?

_____.

#1 Are you a student (or do you work)?

_____

What do you study? / What is your major?

_____

#2 Are you a student?

_____ (社会人になったふりをして、No で文を始めて下さい。)

What do you do?

_____

Japan and Japanese Culture

(Write the following in English.)

Do you know anything about Japan?

_____

How many Japanese words do you know?

_____

Wow, you know a lot.

_____

(Write Questions)

Ask three other question about Japan or Japanese culture.

_____

_____

_____

Good things to use often.

下線部に Emoticon (smile はその一例です)や、文を省略した形などネット上でよく使われる表現を記入してください。

例：Smile= :)_____

Laugh--_____

Embarrassed--_____

Be Right Back--_____

Laughing Out Loud--_____

Following / Being followed

(Write the following in English, then answer.)

あなたは IntZoneU world に来たことがありますか？

Q._____

A._____

それはどんな風（感じ）ですか？

Q._____

A._____

Inviting

(Write the following in English.)

建築(build)はしますか?

_____

はい、IntZoneU で建築をします。

_____

私が建築したものをあなたは見たいですか?

_____

私についてきて。

_____

Holiday Conversation

(Answer)

What do you usually do for Christmas?

_____

I see. Is it fun?

_____

(Write the following in English, then answer.)

今年のクリスマスの予定は何ですか?

Q._____

A._____

去年はクリスマスに何をしましたか?

Q._____

A._____

あなたのお気に入りの holiday は何ですか?

Q. _____

A. _____

元旦は何をしますか?

Q._____

A._____

After the Holidays

(Answer)

How was your Christmas Vacation?

_____

What did you do?

_____

Where did you go?

_____

Did you stay with your family?

_____

Did you play with your friends?

_____

Did you make a New Years Resolution?

_____

What are your New Years Resolution? (新年の決意もしくは抱負がない人はこの場で何か決めてください。)

1. _____

2. _____

3. _____

Ending a conversation

(Good−bye や Later と言う前の会話を終わらせる表現を、3種類書いてください。)

1. _____
2. _____
3. _____

The following lesson reviews simple introductions and asks students to provide replies to common language that appears when people meet for the first time.

Introduction Lesson

Starting Conversation

Hello. _____

What's up? _____

How are you? _____

Conversation

Nice to meet you. _____

Do you come to ActiveWorlds often? _____

Is this your world? _____

Do you build? -- May I see what you built? _____

Where are you (in RL)? _____

Ending the Conversation

Well, I need to go.

Well, I need to get back to work.

Nice talking to you.

Nice to meet you.

Bye.

Later.

The following lesson reviews small talk that students will need to use after introducing themselves to people they meet in the virtual world.

Small Talk

A: Where are you from? / Where are you in RL?

B: I'm from Japan. / I'm in Japan.

A: Really?

B: _____.

A: What city?

B: _____.

A: Have you been to another country?

B: _____.

A: Where would you like to visit?

B: _____.

A: How many countries have you been to?

B: _____.

A: Cool! / Great!

A: Are you a student (or do you work)? #1

B: _____. (student)

A: What do you study? / What is your major?

B: _____.

A: Cool! / Cool. / Really? / Interesting/ etc.

A: Are you a student (or do you work)? #2

B: _____. (work)

A: What do you do?

B: _____.

A: Cool! / Cool. / Really? / Interesting/ etc.

＜その他＞

A: Is __Youko__ your real name?

Yes.

What does your name mean?

"You" means the sun and "ko" means child. So my name means "Sunchild".

Japanese Culture

Do you know anything about Japan?

Not really.

How many Japanese words do you know?

_____. _____. _____. _____.

Wow, you know a lot.

How many famous Japanese people do you know?

_____. _____. _____. _____.

Pretty good! But Jackie Chan isn't Japanese. Hehe. He is Chinese.

Opps.

That's OK. I thought Micheal J. Fox was American.

Good things to use often.

:) = Smile

Hehe / Haha = Laugh

:P = Embarrassed

Following, being followed and discussing virtual spaces

Interacting in the virtual environment often involves following other people. The following lesson introduces simple conversations that often take place after introductions and small talk take place and participants begin showing each other around places within the virtual environment that they are familiar with.

Following / Being followed

If you are having a good conversation with someone, you may want to go together to a different place. Start by introducing it.

Introducing a place I

A: Have you seen IntZoneU world?

B: No, I haven't been there. What's it like?

A: It is like a campus.

B: What can you do there?

A: People from many different countries come there. Some people study English.

Introducing a place II

A: Have you been to <u>Zuzu</u> world?

B: No. What's it like?

A: It is a beach world. They have lots of interesting avatars.

B: Sounds good. / Sounds cool. / Interesting.

A: Can you do anything there?

B: Mostly we talk.

Inviting I

A: Do you build?

B: <u>Yes, I build in IntZoneU. Would you like to see it?</u>

A: Sure.

B: <u>Follow me.</u>

A: OK. I'll join you.

(Put the person's name in the CONTACTS list. Then RIGHT CLICK and select join.)

Culture Lesson Holidays

A large part of the interaction that takes place in the virtual environment is the discussion of cultural differences.

Christmas

A: What do you usually do for Christmas?

B: My family usually gets together and has dinner. Exchange presents. Stuff like that.

A: I see. Is it fun?

B: Oh, yes.

A: We usually go out with our friends. Boyfriends and girlfriends go out together. Stuff like that.

B: Do you give out presents?

A: Sometimes. Christmas eve is bigger here than Christmas day.

More Christmas Questions

A: What are your plans for Christmas this year?

A: What did you do for Christmas last year?

A: What's your favorite holiday?

New Year's Day

A: How do you spend New Year's Day?

B: I went to a party with my friends? We light fireworks and make lots of noise at midnight. What did you do?

A: I went home and stayed with my family. We light fireworks in the summer.

B: That sounds boring!

A: New Years Day in Japan is like Christmas. We have dinner together and give money to children. On Christmas we go out with our friends.

B: Interesting. It's the opposite of here.

Implementation

Time-line. The project was implemented over one year. In the first month, we focused on publicity, creating the web site and development of the virtual environment. The class that took place in the environment lasted 10 months over the normal university school year. At the six month period, we focused again on publicity. During the first 4 months of class covered acculturation into the VR environment and the final five months, the class focused more on English lessons like those displayed above.

Computer system. The designated computer arrived four months into the project, but the server was set up on another computer in the second month. This alternative computer was already connected to the network and the firewall was configured to allow the server to function. In the fourth month when the designated computer arrived, it was installed and connected to the network in the sixth month, preceding the beginning of Second term of classes.

Publicity

As the success of the project depended on attracting participants from the general population of native speakers and language learners, publicity played an important part in the project. We attempted to time the publicity in order to create a self-

sustaining population of users as described by Wilson (2000).

Publicity within the university. Posters were put up to gather students who were interested in virtual reality. We met weekly or bi-weekly. These students learned to build on to and interact within the virtual reality environment.

Media. Press releases were sent to English language magazines in Japan.

Mailing lists. Posts were made to language education and education-related virtual reality mailing lists.

Presentations. The InterZone University project was closely enough related to another project we were working on to include it in presentations that were done in Japan, Australia and England.

Website. A website was put up which introduced the virtual environment and provided a walk-through for setting up the client and FAQ.

Data

Student-to-Student In-Class Practice

The following dialogs are samples of interaction that takes place during the student-to-students phase of the lesson. The first text preceded by the title Immigration Officer, is a welcome text that greets individuals when they enter a new virtual environment. Following that is the transcript of the conversation that took place. Sometimes in the dialogs, references will be made to the surroundings or behavior of individuals, which can be confusing when reading the text out of context.

Akiyoshi and TakafumiYagi.

Immigration Officer: This world is a language learning community. It is a place where people learning English can feel comfortable and everyone else can talk to people from all over the world. Enjoy!!

Immigration Officer:

You are being joined by Takao.

Akiyoshi:	hello!
TakafumiYagi:	Hello
Akiyoshi:	what's up?
Akiyoshi:	How are you?
TakafumiYagi:	I fine thank you and you.
Akiyoshi:	Me too!

TakafumiYagi:　Do you come to Active Worlds often?

Akiyoshi:　Yes I do.

Akiyoshi:　Where do you live?

TakafumiYagi:　In Hyougo .In Amagasaki.

TakafumiYagi:　You?

Akiyoshi:　I'm in Osaka city but from Sizuoka.

TakafumiYagi:　Ok.

Akiyoshi:　Nice talking to you !

Akiyoshi:　bye!

TakafumiYagi:　Nice talking to you. Bye!

Kiichi and Satoaki

Kiichi:　hello

satoaki:　how are you?

Kiichi:　How was your winter vacation.

Kiichi:　I˘m fine thank you, and you?

satoaki:　I was boring .

Kiichi:　me too. LOL

satoaki:　I go back hometown.

Kiichi:　me too. Where do you from?

satoaki:　kouchi.

Kiichi:　I`m from Kagawa.

satoaki:　sikoku dousi.

Kiichi:　yes

Kiichi:　SEIZINNSIKI was happning in Koichi and Kagawa.

satoaki:　ah. so fun:-)

satoaki:　The mayer so angry!

Kiichi:　What dose `mayer` mean?

satoaki:　sityou.

Kiichi:　sityou?

satoaki:　sichyou.

Kiichi:　市秩キ

Kiichi:　Yes yes I understand

Kiichi:	For example Tanaka yasuo.
satoaki:	Yasuo :-)
satoaki:	example Takamatu sichyou.
Kiichi:	Yes that`s right
satoaki:	kagawa is Takamstu city?
Kiichi:	yes. But I went to Marugame`s SEIZINSIKI
satoaki:	I see. What are you Seizinsiki?
Kiichi:	very simple
Kiichi:	and you?
satoaki:	i did Seizinnsiki 2years ago.
satoaki:	it
Kiichi:	Oh I see
satoaki:	seizinnsiki was whether good?
Kiichi:	Kouchi is famous by SIMANTOGAWA Ryoko Hirosue
Kiichi:	yes
Kiichi:	whether good.
satoaki:	Hirosue is friends sister friends. very very long ago:-)
Kiichi:	What other famous subject in Kouchi?
Kiichi:	Really!!!!????!!!!!!!!!!!!!!!!!!!!!????????????? / /
Kiichi:	Emi Hirosue?
satoaki:	yes, She is eremenntary school friends.
Kiichi:	eremenntary?
satoaki:	shyou gakkou.
Kiichi:	Oh I see
satoaki:	ryoko hirosue.
Kiichi:	Your English is nice
satoaki:	bye. thanks a lot.
Kiichi:	bye
Kiichi:	thank you
satoaki:	your wellcome.

Student to non-sympathetic native speaker. This was the goal of each lesson. Students went into virtual environments in search of native speakers to practice the target content of the lesson. Although the students found it hard to steer the

conversation in the direction they chose, they were often successful in using content from the lessons. As many of them were low-level speakers of English, sometimes the content from the class was all they were able to produce.

Kiichi, GenK and Lime

GenK:	Looks good here.
Kiichi:	Hello
Joy:	hiay Gen and Kiich! :)
Lasha:	Hello Kliichi
Kiichi:	I am Japanese.
Audie:	brb
GenK:	Hi Joy and Kiichi
Kiichi:	hi
Kiichi:	Hi GenK
GenK:	Hi Kiichi, what part of Japan?
GenK:	Kiichi, what part of japan are you from?
Kiichi:	Sorry I don`t know, I hear teacher. Just a minute.
GenK:	Take your time Kiichi san.
Kiichi:	I live in Osaka.
GenK:	Oh i have a friend in Osaka.
GenK:	Long time ago she came to Canada to visit me.
Kiichi:	Oh, it`s a destiny.
GenK:	Not sure about that.
Kiichi:	What dose
Kiichi:	What does not sure about that mean?
Kiichi:	Ya ya,
GenK:	You are studing English in Japan?
Kiichi:	Yes.Osaka is very a
GenK:	I see.
Kiichi:	But I don`t speak English well.
GenK:	Are you in School now?
Kiichi:	Yes, that`s Right!!
Kiichi:	Osaka is ugly.
GenK:	so you need to learn more vocabulary, and sentence structure.

Kiichi:	Yes, sorry.
GenK:	My son went to Japn two years ago, lived in Tokyo for one month..
Kiichi:	I understand!
GenK:	Don't worry I can understand most things you are saying..
Kiichi:	Oh, thank you..
GenK:	He was tring to learn Kanji.
GenK:	He is finding it very hard.
Khan:	Hello everyone
GenK:	Hi Khan
Takenaka:	Hello,everyone
Khan:	Hello Genghis :-)
Kiichi:	Tokyo and Osaka is very lot of people.
Audie:	What kind of work do you do, Kichi?
Khan:	Yep Kiichi. Thats why you are all so thin..
Takenaka:	Kanji is very hard.
GenK:	Yes that what my son is finding, he cannot get into japanese classes at college.
Kiichi:	Khan`s English is very different.
Khan:	Right Kiichi. I am from Turkiye.
Kiichi:	Turkiye!?
Khan:	Yes. some call it Turkey.
GenK:	Khan is English your first language?
Khan:	No Gen, Our native language is Turkish.
GenK:	Yes LOL.
GenK:	But your English is good, esp slang..
Khan:	I guess I should thank you ;-)
GenK:	Why?
Khan:	being good in slang is questionalble. lol
Kiichi:	Turkiye is Alabia.
GenK:	Near arabia, I think.
Khan:	Alabia? Do you mean arabia? If so, you are wrong, Kiichi.
Kiichi:	gahahahahahahahahahaha Sorry.
Kiichi:	Arabia is inossent. LOL

GenK:	It is in the middle east in Asia minor, near the Black sea.
Khan:	Turkiye is Asia minor, Gen..
Khan:	Where kiichi is living?
Khan:	opps brb
GenK:	Yes sorry, my mistake.
Kiichi:	**I live in Osaka.**
GenK:	He is away kiichi
Khan:	back
GenK:	Brb means be right back..
Kiichi:	**I am from Kagawa in Sikoku..**
Khan:	Is sikoku an island?
Kiichi:	**Yes, yes!**
Kiichi:	**Littke island.**
Khan:	A small one?
Kiichi:	**Yes**
GenK:	Good night friends..
Kiichi:	**Sorry, little island.**
Khan:	**It must be beautiful. Not crowded. Green., nice nature.**
Khan:	**Leaving already gen?**
Kiichi:	**Good night**
Lime:	Hello
Khan:	Would you invite me there kiichi?
Lasha:	Hi Lime.
Lime:	Howdy doody. lol
Kiichi:	**Very natural town.**
Audie:	Hi Lime:)
Lime:	I yas llash
Khan:	hello Lime and lasha
Lime:	lasha
Lime:	hee
Lime:	I was Khan
Khan:	Gen?
Lasha:	hello Khan
Lime:	((((((((((((((((((Aud)))))))))))))))))))

Khan:	is au here?
Lime:	hi Audie.. how's your night
Kiichi:	**But Sikoku is the country.**
Audie:	I am doing fine, ty
Khan:	Hello Audie
Audie:	Some gal is trying to kick my ass at spades
Khan:	brb
Lime:	Great... I tell you, I went to a great doctor today.
Kiichi:	**Good bye every one .see you.**
Lime:	I need fun & exctiment in my life
Kiichi:	**Thank you.**
Lime:	ahhhhh bye Kichi. Why you leaving?
Lime:	dpm
Lime:	Don't leave even.
Lime:	brb the dog is scrathing on the door.
Khan:	Back.. I am happy that you are still here kiichi :-)
Kiichi:	**Thank you**
Lime:	Oh my
Khan:	whats wrong, Lime?
Kiichi:	Hello
Lime:	Nothin. lol Just the dog. hehehe
Lime:	howdy doody Kiichi
Audie:	What kind of dog is it, Lime?
Lime:	(((((((Aud))))))) you still here hon?
Khan:	Kiichi, is this your real name?
Lime:	scatching on the door... lol annoying me.
Kiichi:	**Lime`s English is very hard.**
Lime:	English springer spanial
Audie:	OK.. I am not gone, just playing spades too
Lime:	Hard kiichi. How is that...I'm soft hon.
Khan:	No problem Kiichi. You're doing well
Kiichi:	**My name is Kiichi Hirata . I am Japanese.**
Khan:	I am very happy to meet you Kiichi. I am Genghis Khan. Turk.
:-)	

Khan:	Do you know how to whisper?
Kiichi:	**Thanks Khan me too!**
Kiichi:	**(to Khan) yes**
Khan:	Very Nice :-) I wish I can visit your place one day Kiichi.
Audie:	yes, especially when I win:)
Kiichi:	**(to Khan) Thank you**
Khan:	What do you do? Are you working or a student?
Kiichi:	**I am student.**
Kiichi:	**(to Khan) I am student.**
Lime:	What are you studying to be Kich??
Khan:	Great. Than you must have long holidiys
Kiichi:	**I am studying English.**
Lime:	Aud lol
Kiichi:	**lol?**
Lime:	I need to study english.. As you can tell. lol
Kiichi:	**What does lol mean?**
Khan:	lol is short for laughter on line. That is laughing.
Kiichi:	**hahahahaha. Is it slang?**
Lime:	I think of it as just displaying emotion
Lime:	Lol or hahaha.
Khan:	Yes, its an internet slang..
Khan:	Or internet jargon
Lime:	Yea.. internet jargon..
Khan:	How you've been in Active Worlds Kiichi?
Kiichi:	**(to Khan) yes**
Khan:	Yes? Yes for long holidays?
Kiichi:	**Activeworlds is very lots of people.**
Lime:	Yes, Kichi. Where you from?
Khan:	May I ask how old are you?
Lime:	Me...? not me
Lime:	Never
Lime:	Lol.
Kiichi:	**(to Khan) 19**
Kiichi:	**(to Khan) 19 years old**

Khan:	You must be very sweet in this age :-)
Lime:	So hon, Kichi that is. Where you from???
Kiichi:	(to Khan) Thank you.
Khan:	Your very welcome. :-))
Kiichi:	Do you no X−MEN?
Lime:	Not really Kiichi.
Kiichi:	Sorry. DO you know X−MEN?
Khan:	Whats X-MEN? A cartoon movie?
Kiichi:	I like Cyclops.
long night:	Ten men its roman numerals.
Lime:	Oh GAWD sure wish someone would fix me up with a man
Kiichi:	Yes, cartoon movie.
long night:	Hey talk to kiichi. she's on the move.
Khan:	<- notes down Lime's comment
Kiichi:	Optic blast!!!!!! Biiiiiiiii
Lime:	LOL. I want a man... a real man Khan..
Khan:	Kicchi, do you want X-MEN?
Lime:	Hehee...
Audie:	Popeye
Lime:	Well, I have to go before I get in trouble.
Kiichi:	Thank you, everyone. Bye bye.
Kiichi:	Good bye.
Kiichi:	See you.
Khan:	Bye bye. Kiichi.
Lime:	Night Kichi. Don't let the bedbugs bite.
Khan:	I hope so kiichi. Don't forget us.

Kiichi and A-ron

Immigration Officer:

Welcome to Wien2 and the HDM Pavilion ! - Leave a
message at our Message Board. Enjoy your stay in Wien2 world !

"A-ron":	how do u fight
Kiichi:	hello
"A-ron":	hi

"A-ron":	a/s/l
"A-ron":	can u see me
Kiichi:	sorry　no
"A-ron":	where are u
Kiichi:	may be Center
Kiichi:	I am Japanese so I can speak English well
"A-ron":	are　u a girl
Kiichi:	what you live?
Kiichi:	I am a boy
"A-ron":	how old?
Kiichi:	No no I can not speak English
Kiichi:	i am 20
Kiichi:	20 old
"A-ron":	i am 21
Kiichi:	Are you a boy?
"A-ron":	yes
Kiichi:	Where do you live now?
"A－ron":	Is it cool in japan
"A-ron":	Usa, ohio.
Kiichi:	Yes!! fuckin cold!
"A-ron":	same here
Kiichi:	Are you student?
[LauraBot]:	Please watch your language, Kiichi
"A-ron":	No. I am a grad.
Kiichi:	Sorry sorry.
[LauraBot]:	Okay, just behave yourself. This is a place where children come to study
"A-ron":	I can,t see u
Kiichi:	I am flying in the air.
Kiichi:	(to [LauraBot]) I study English. Didn't mean to say bad thing..
[LauraBot]:	That's okay, just don't let it happen again
"A-ron":	I see u
Kiichi:	What does glad mean?

Kiichi:	No no. Grad.
Kiichi:	I see you, too.
"A-ron":	I graduated.
Kiichi:	I see.
Kiichi:	Do you have a job?
"A-ron":	No I got fired.
Kiichi:	Oh, sorry.
"A-ron":	That's cool.
"A-ron":	Hi.
"A-ron":	Are u mad?
Kiichi:	hi
"A-ron":	hi
"A-ron":	How is this?
"A-ron":	Who
Kiichi:	I go to home, thank you..
Kiichi:	Bye.
Kiichi:	I must go.
"A-ron":	Bye
Kiichi:	Thank you Good bye.

Kiichi, Capt. and Summer

Capt.:	:)
Kiichi:	I look!!
Kiichi:	Hello.
Capt.:	Hello Kichi
Kiichi:	How old are you?
Kiichi:	hello CAPT
Capt.:	23 and growing
Capt.:	Where are u?
Kiichi:	I am 20 old
Kiichi:	Sorry, I use Whisper.
Kiichi:	Where live Summer?
Summer:	Oh, yes.
Summer:	Where are you from Kiichi?

Kiichi:	I am Japanese and live in Japan
Kiichi:	so I do not English well
Summer:	I am in California
Capt.:	greetings to Japan
Capt.:	where in Japan? Any major city?
Capt.:	Well, our japanese isn't that good too.
Summer:	Oh, you are speaking very good english
Kiichi:	Oh! California!
Kiichi:	Very Very thank you, Summer.
Kiichi:	Is California hot?
Wired:	Summer...
Wired:	We need to talk later
Kiichi:	(to Capt.) Osaka in Japan
Capt.:	nice...wanna join us at 13n 1w?
Kiichi:	Do you know Osaka?
Capt.:	just teleport there
Summer:	ok well it's getting late
Capt.:	only heard of Osaka
Wired:	Kiichi, do you know of Reiki ?
Summer:	no sorry I don't
Kiichi:	I`m find!!
Kiichi:	Reiki?
Capt.:	reiki??
Wired:	A art of using universal energys to heal.
Capt.:	ah...
Capt.:	right
Kiichi:	I understand
Wired:	You may be interested in seeing the meditation temple I have made
Kiichi:	oh I can escape
Summer:	you did
Summer:	to funny
Kiichi:	LOL
Kiichi:	:)

Capt.:	:)
Kiichi:	**Do you know Japanese President?**
Capt.:	Not personally....:)
Wired:	Not me...
Summer:	not me either sorry to say
Kiichi:	**oh. I see**
Capt.:	**do you know the german president?**
Kiichi:	**I don`t know, sorry**
Wired:	Nope, sorry to say
Kiichi:	**But**
Capt.:	Johannes Rau
Wired:	Who is Ausie president?
Kiichi:	**But America is Bush!**
Capt.:	Chancelor and head of government is Schroder.
Capt.:	hmmm
Capt.:	Aussie President...
Capt.:	Crocodile Dandy?
Kiichi:	**lol!**
Kiichi:	**GAhahahaha**
Summer:	and the American President.
Summer:	Is not the people's choice.
Summer:	Count those votes again.
Wired:	Lol
Capt.:	too late :)
Kiichi:	**I know Crocodile Dandy! hahahahaha**
Wired:	*Recount*
Summer:	shoot I am always late.
Wired:	A day late and a dollar short.
Wired:	I like this .
Wired:	The vid is kewl too
Kiichi:	**What do you like supports?**
Summer:	I support the people
Capt.:	yeah...
Capt.:	Nice video indeed.

Summer:	lol
Wired:	Beasty...hehe
Capt.:	Beasty Boys for president.
Kiichi:	**Haha.**
Wired:	Sorry about that... *pulls mind from guter*
Wired:	President...lol
Kiichi:	**I like `MATRIX`**
Summer:	Me too.
Capt.:	Oh the Matrix is a cool movie indeed.
Wired:	I was in the shotokan karate once.
Capt.:	AW is a bit like the matrix or is it?
Capt.:	LOL
Kiichi:	**Very very interesting**
Wired:	I hold a 3rd degree brown belt.
Capt.:	I find it very interesting what avatars people select.:)
Kiichi:	**Oh! AW is MATRIX?**
Capt.:	now...what does this tell us of your psychological Constitution. LOL
Summer:	eating ice cream
Summer:	lol
Wired:	lol
Capt.:	rofl
Wired:	Studying me ay?
Summer:	ok you guys caught me
Capt.:	nope..
Kiichi:	**Summer,what do you think MATRIX**
Capt.:	studying no one...
Summer:	I thought is was the coolest movie
Summer:	great special effects
Capt.:	bought it as DVD
Kiichi:	**DVD is good**
Kiichi:	**by SONY in the world.**
Capt.:	The first time I saw the Matrix (in English original tone) I was deeply impressed.

Capt.:	and slightly shocked....
Capt.:	Looong discussions followed this movie experience...
Capt.:	About "What is real?"
Kiichi:	mmmm
Wired:	I need to join her.
Kiichi:	hello?
Kiichi:	I must back.
Summer:	hello
Capt.:	hello Summer
Capt.:	hello Kichi
Summer:	brb
Kiichi:	Thank you .
Kiichi:	Good bye
Capt.:	See you, Kiichi.
Kiichi:	Today is fun.
Capt.:	Bye K
Capt.:	And come back soon.
Kiichi:	See you. Good bye.
Capt.:	bye bye

Stellar and Hiro.

Steller:	hello
"H I R O":	Hello!
Steller:	Hiro protagonist?
"H I R O":	protagonist??
"H I R O":	I 'm japanese .
"H I R O":	Are you from ,Steller ?.
Steller:	Im from California =0)
"H I R O":	What are you doing job?
Steller:	Im a mom, wife and I love 3D, I own friends world...
"H I R O":	' MOM ' !!!
"H I R O":	I'm student .
Steller:	4 times!
Steller:	what you study?

"H I R O":　　Annnn, Math.

Steller:　　　annnn?

"H I R O":　　But i don't understand 'math' . Hehe.

Steller:　　　whats your favorite sushi =0)

Tomoaki:　　hello!

Steller:　　　hi Tomo =0)

"H I R O":　　It's great !!

Tomoaki:　　sushi is very good!

Steller:　　　whats your favorite kind?

Immigration Officer:

Hey "H I R O" did you know that as a citizen of

Active Worlds, you can choose your appearance from a much larger set of

avatars? For more information go to the Help menu and select

Registration.

"H I R O":　　Kimono !

Steller:　　　wbackies =0)

Tomoaki:　　karaoke!

Mac:　　　　bleep and come see my baloon !!

"H I R O":　　Tokyo,Osaka,kyoto...do you kouw ?

Steller:　　　okies =0) is it same name?

Mac:　　　　yeah

Mac:　　　　still got a tiny problem...but its very close I think

Tomoaki:　　you are japanese ,aren't you?

"H I R O":　　(to Tomoaki) Yea. I'm japanees .

Steller:　　　awesome =0)

Mac:　　　　YAYYYYY

Tomoaki:　　You are 722 classroom?

"H I R O":　　(to Steller) What do you like sport ?

"H I R O":　　(to Tomoaki) Yes,you too !

Tomoaki:　　Ahh!! where are you?

Steller:　　　wow they can fit alot of people in a hot air balloon

Aine:　　　　depends on the size of the basket, and size of the people

"H I R O":　　(to Tomoaki) Where? It's secret .hehe :>

Tomoaki:　　huhu! OK!

Takenaka:	Hello everyone
Steller:	hi Takenaka
Aine:	some of those balloons are really ornate, too
Steller:	are you Japanese?
Takenaka:	yes
"H I R O":	Hi !
Steller:	neat, seems like alot from Japan through here tonight =0) welcome!
Takenaka:	What are you from?
Steller:	California =0)
"H I R O":	(to Steller) I like sport basebool, basket, tennis etc...
Steller:	Sports are ok, Hiro, but I'm not into them much. =0)
Steller:	I'm an artist
Tomoaki:	that's great!
"H I R O":	(to Steller) Artist ! beautiful !
Tomoaki:	How old are you? Steller
Steller:	35
Tomoaki:	Im 21.

Hiro and Nathalie Ive.

"H I R O":	Hellow !
"H I R O":	How are you .
"DEVIL ICE":	hi hiro
"H I R O":	Hi ! I'm japanees .
"DEVIL ICE":	cool
"DEVIL ICE":	do you live in this world?
"nathalie ive":	are you a girl?
"H I R O":	"GREAT" ^0^
"H I R O":	I'm gentlman.
"H I R O":	Are you American ?
"DEVIL ICE":	no
"nathalie ive":	hi
"nathalie ive":	well
"H I R O":	What are you from ?

"DEVIL ICE":　mexican

"H I R O":　good !

"H I R O":　How was you Christimas vacation ?

"nathalie ive":　hi

"H I R O":　hi !

"nathalie ive":　oscar?

"nathalie ive":　how are you?

"H I R O":　I'm fine .

"nathalie ive":　are you a friend

"nathalie ive":　whre is devil?

"nathalie ive":　hi

"nathalie ive":　friend

"nathalie ive":　where is the other guy?

"H I R O":　I dont know.

"nathalie ive":　did he left?

"nathalie ive":　did he told you something?

"H I R O":　No,

"nathalie ive":　thats strange

"H I R O":　Are you his friend ?

"nathalie ive":　yes

"H I R O":　Yes, strange.

"nathalie ive":　i am helping him to decorate his house

"nathalie ive":　tell me

"H I R O":　yes,

"nathalie ive":　do you have a house/

"nathalie ive":　in here

"H I R O":　my house is small.

"nathalie ive":　are you there?

"H I R O":　its other world.

"nathalie ive":　ok

"nathalie ive":　cool

"nathalie ive":　it must be preety

"nathalie ive":　oopss

"nathalie ive":　pretty

"H I R O":	thanks
"H I R O":	I'm student . are you?
"nathalie ive":	yes
"nathalie ive":	i live in houston
"H I R O":	cool!!!
"nathalie ive":	and study psychology.
"H I R O":	great!
"nathalie ive":	thanks
"nathalie ive":	its a big house
"H I R O":	How was you Chrismas vacation ?
"H I R O":	yes!
"nathalie ive":	fine
"nathalie ive":	and you?
"H I R O":	very good !
"H I R O":	What did you do ?
"nathalie ive":	stay
"nathalie ive":	with my family
"H I R O":	Sorry, I go to my home,
"nathalie ive":	and cook
"nathalie ive":	some food
"H I R O":	See you later ! bye bye ^0^
"nathalie ive":	ok
"H I R O":	you are "good"
"nathalie ive":	bye.

Teacher-to-student interaction. Because some students had trouble making contact with native speakers, the native-speaker host and the teacher, Wilson, sometimes interacted with students from the class during the third phase of the lesson. The following is an example of a simple trivia game, which developed into students asking the teacher questions about himself.

Wilson:	Hello everyone.
Takenaka:	Hello
Akiyoshi:	Hello!
Mariko:	Hello.

Takao:	Hello!
usa:	Hello
Wilson:	Heheh
shigeki:	Hello, Mr. Wilson.
TakafumiYagi:	Hello.
"masaki":	hello, Wilson
Wilson:	So, follow me over here.
Takao:	OK!
Wilson:	Usa, Masaki, good.
Wilson:	See me?
Wilson:	Here they come.
Wilson:	OK. I will ask a question.....see who can answer first..........
Wilson:	First an easy question.........
Wilson:	What country is north of America??
shigeki:	Chicago
Wilson:	Chicago is a city.
Wilson:	Hehe.
Akiyoshi:	**Canada**
shigeki:	Canada
Takenaka:	Canada
Takao:	Canada
Wilson:	**Akiyoshi, got it. Yeah!!!**
Wilson:	Canada is north of America..........
Wilson:	OK, Next.......
Wilson:	How many players are on the field in a baseball game?
Akiyoshi:	11
shigeki:	12
Takenaka:	9
Takao:	It`s nine!
"masaki":	9
TakafumiYagi:	9
Wilson:	How about the batter???
Wilson:	He is a player, right.
Wilson:	I think the answer is 10.

Wilson:	Hello.
Wilson:	OK.
Wilson:	Next question. Who will be first?
Wilson:	How many minutes does it take for the space shuttle to go into space?
shigeki:	24hours
Wilson:	NO, not 24 hours.
Takenaka:	9
Wilson:	9 what?
shigeki:	5 minutes.
usa:	15 hours
Takao:	10 hours
Wilson:	5 minutes is very close.....
Takao:	4 hours
shigeki:	60 minutes.
Wilson:	Shigeki is closest........
Takao:	6 hours
Wilson:	OK. The answer is.....................9 minutes.
Wilson:	From earth to space takes 9 minutes. Very fast.
Wilson:	OK. Next question........
Wilson:	What is the name of a mammal that has eggs.
Wilson:	Mammal = animal with hair.
shigeki:	Hampty Dampty.
Wilson:	Hehe.
Kiichi:	LOL
Wilson:	Not Humpty Dumpty.
Wilson:	You can find this animal in Australia....
shigeki:	Kangol.
Wilson:	No.......
Takao:	Koala
shigeki:	Koala.
Wilson:	No.
Wilson:	It likes to swim.......
Akiyoshi:	**Ian sorp**

Wilson:	Ian Sorp, whats that?
usa:	Kujira
Wilson:	Nope.
shigeki:	Kamonohashi.
Wilson:	Its called a platypus.　Do you know it?
usa:	I dont know
TakafumiYagi:	I don't know.
Akiyoshi:	**No I don't**
Wilson:	Its mouth looks like a duck.
Wilson:	It has eggs.
Wilson:	It's tail looks like a beaver.
Takao:	I don`t know
Wilson:	Hmmmmmmmm....that was a hard question.
shigeki:	I see.......
Wilson:	If you know a good question, whisper it to me and I will ask it.
Wilson:	Ok. Easy quesiton.
Wilson:	Who was America's first president?
shigeki:	Washington.
Wilson:	Yes, Shigeki.
Wilson:	Who is the American president right now?
Wilson:	No idea?
Takao:	Bush.
Wilson:	Not Bush, he will be president from next year.
Wilson:	Hehe.
Akiyoshi:	**Gore.**
Wilson:	Nope, Gore is Vice President.
Akiyoshi:	**crinton**
Takao:	Crinton
Wilson:	Hehe. Akiyoshi, is right.　Its Clinton. He will be President until February.
Wilson:	OK.　A little harder question.
Wilson:	What is the Capital city of Australia?
TakafumiYagi:	Cyanbel
Wilson:	I think you got it.　Canberra?

Wilson:	OK.
Wilson:	OK. Easy one..............
Wilson:	Who was Japan's first astronaut??????
shigeki:	What is astronaut?
Wilson:	Good question.
Wilson:	An astronaut is a person who goes into space.
Akiyoshi:	**Mouri**
shigeki:	gagarin.
Wilson:	Mouri, Yes, I think thats it.
Wilson:	Gagarin?
Wilson:	I don't know Gagarin.
Wilson:	Who is Gagarin?
shigeki:	earth was blue.He said.
Wilson:	Japanese?
shigeki:	Russian
Wilson:	OK.. I said the first Japanese person, right.
Wilson:	OK.. Tell me the two animals with the two biggest mouths.
Wilson:	Both are mammals
Wilson:	....
Wilson:	Do you understand?
usa:	kaba
Wilson:	What is Kaba?
Wilson:	Where can you find Kaba?
usa:	TV
Wilson:	Hehehe. And in the zoo??
Wilson:	The two animals names start with W and H................
shigeki:	What is mammals?
Wilson:	mammals= animals with hair
Wilson:	Didn't you ask that before.
usa:	Two mouth?
Wilson:	Two animals......
Wilson:	One mouth each..
Wilson:	#1 biggest and #3 biggest.
Wilson:	They both like the water.

Wilson:	One is always in the water.
Wilson:	The other goes into the water every day.
Wilson:	No idea.
Wilson:	Its Whale and Hippo.
Wilson:	Too hard?????
Wilson:	I thought that was easy.
usa:	Hippo?
Wilson:	A hippo lives in Africa........
Wilson:	Its very fat.
Wilson:	Big mouth.
Wilson:	Likes the water.
Wilson:	I think Hippo is Kaba.
usa:	Ok
Wilson:	Someone ask a question.......................
Wilson:	Or whisper it to me and I will ask.
usa:	Teach me your family
Wilson:	My family........OK.
Wilson:	My family in Japan, or in America?
usa:	Both.
Wilson:	OK. In Japan, there is me and my wife. She is Yoko.
Wilson:	We got married 1 1/2 years ago.
usa:	Oh, happy?
Wilson:	Hehe. Happy. ：）
Wilson:	My mother, father, and sisters live in America.
Takao:	How old are you?
Wilson:	Takao, how old to you think I am?????? Hehehe.
Takao:	30
Wilson:	Hehe.　Higher... I am 35.　I will be 36 in 17 days.
usa:	How old are they?
Wilson:	My parents? or Yoko?
usa:	Yoko
Wilson:	Yoko is 28. She is a graduate student (daigakuinsei).
TakafumiYagi:	How long live in Japan?
usa:	Oh , young. son or daughter?

Wilson:	I have lived in Japan for about ten years. 7 years in Hokkaido, 1 year in Hiroshima, 2 in Osaka.
Wilson:	Usa, I have no children.
Wilson:	Masaki. Yes, I like Okonomiyaki and sushi.
Mariko:	Hokkaido is good??
Wilson:	Mariko, you are quiet.
Wilson:	!!!!!!!!!!
usa:	Hokkaido is hot in summer?
Wilson:	Yes, I loved Hokkaido.
Wilson:	Hokkaido is about 28-30 in the summer.
usa:	Winter?
Wilson:	Where are you all from?
Wilson:	Of course, the winter in Hokkaido is cold.
Mariko:	Great!! I will go Hokkaido this winter.
Wilson:	I love snowboarding, so I love the winter.
Takenaka:	What food is delicious in Hokkaido?
Wilson:	Mariko, cool. Will you go skiing?
Wilson:	Takenaka, the best food in Hokkaido is IKURA!!!!!! Fresh IKURA.
Akiyoshi:	Do you like KANI?
Mariko:	I will go snow board.
usa:	IKURA? I don't like
Wilson:	No, I don't like kani (crab) very much..
Wilson:	Mariko, where will you go snowboarding in Hokkaido? I know every snowboarding place in Hokkaido!!
Wilson:	Usa, I didn't like Ikura until I tasted Hokkaido ikura.
TakafumiYagi:	I like snowboarding too.
Wilson:	OH!!... It is time to go!!!
Wilson:	Everyone save your conversation and mail it to me.

Results

The results were mixed. Implementation was successful, as was the goal of making available an ESL-like environment to learners in geographically EFL environments. The students in the class, as well as several self-motivated students made use of the

environment. The goal of the environment becoming a self-sustaining community was not met.

Computer system. During the first month of operation, the firewall was stopping incoming signals to the server. It also appears that when the server was moved to the designated computer in the sixth month, incoming signals stopped coming through the firewall. This was extremely unfortunate, because this coincided with the distribution of publicity. Other than that, the computer system ran well.

Implementation of the design.

The virtual learning environment was successfully designed and implemented. The server was upgraded in the third month of the project to accommodate more students. All of the design goals including the campus metaphor, the English-speaking host, and the Lessons were met. The results of the class carried out in the virtual environment surpassed expectations in many ways. The 18 students attending the class, produced over 600 total pages of text conversation, most of which took place in class, but included extra-credit interactions that two students chose to do.

The native English-Speaking host.

The native-speaker host element of the project was successful in that he was there and worked with people who came in, but he could have been utilized much better if the turnout was higher.

Self-sustaining community.

The critical mass, described by Wilson (2000) that is necessary for the virtual environment to be self-sustaining was not achieved. While the design proved to be functional and still holds the potential as a rich environment for the community element of a distance education curriculum and language learning environment, we were not able to attract and motivate the continued return of either the native or non-native speakers. There are four reasons that appeared to influence this disappointing result: Our failure to adequately publicize the project, the difficulty of installing and using the virtual reality environment, the quality of the language learning activities in the environment and the quality of the virtual reality medium.

The importance of the quality of the virtual medium and lessons are clear, but if potential users do not know that the project exists, it is impossible for it to flourish

and grow. For this reason, we can't stress enough the importance of a well-planned publicity effort. Although we felt confident that the publicity that we put out was adequate, due to inexperience with the firewall and lack of communication with the computer network administration that we were working within, both publicity pushes coincided with firewall problems that blocked potential participants from entering the environment. The damage caused by this problem was made worse because from within the firewall, everything appeared to function normally.

On the other hand, other language education communities that lack the richness that virtual reality offers have thrived with no other publicity than word of mouth. Although no doubt the comparable difficulty involved in setting up and using the virtual reality client plays some role in this, if the lessons and activities in the environment were more engaging, participants would be attracted, would return and the number of participants would grow spontaneously. Apparently, the activities we provided and the inclusion of the native-speaking host was not enough to stimulate this.

Despite the difficulties, the benefits that those participants who actively took part in the project received lead us to conclude that there is a future in using virtual environments as the community element of internet-based language education. As the technology improves, this will become increasingly true.

Recommendation for further pursuing virtual educational communities

The recommendations that we will make will stem from the elements of the project that we have concluded were least successful.

The quality of the virtual medium also played a role in the failure to build a self-sustaining community. Fortunately, this is an element that will continue to improve even without the efforts of educators. Virtual reality for the purpose of entertainment has stimulated continuous improvement and this should continue into the foreseeable future. However, the participants that we have attempted to attract to the project, are accustomed in this age to virtual environments that are beyond the reach of educators. The images in ActiveWorlds are jerky, have lower quality graphics and less functionality than those that they are using for entertainment. We received many comments that participants had the feeling of being handicapped. Similar projects in the future should make every effort to use state-of-the-art technology, focusing on fluid movement, and interactivity.

Educators should be sure to have mastery of the computer network that the

project will be using, and good and constant communication with system administrators. No matter how well the project is planned, if this element is weak, it can lead to failure.

Also when choosing a virtual reality medium, be sure to make every effort to make entrance into the environment as easy and intuitive as possible. Every step involved in getting into the environment will result in losing some number of potential participants.

Again, we stress the importance timing the publicity of the project so that the all-important "critical mass" of participants is achieved to make the community self-sustaining.

Finally, we remain committed to the belief that virtual reality communities will play a large part in the future of language education. A concerted effort by government and related businesses to create an international, online community with a variety of games, and cultural and educational activities would effectively remove the current distinction between EFL and ESL environments in language education as well as contribute to the linking the cultures of the world..

Bibliography

Anders, P. (1999). Envisioning Cyberspace: Designing 3D Electronic Spaces, McGraw Hill.

Brown, J. D. (1987). Principles of Language Teaching, Prentice Hall Regents.

McCormick, C. and Jones, D. (1998). Building a Web-based Education System, Wiley.

Palloff, R. and Pratt, K. (1999). Building Learning Communities in Cyberspace: Effective strategies for the online classroom. Jossey-Bass, San Francisco.

Pratt, K. (1996). The Electronic Personality. Unpublished doctoral dissertation, Human and Organizational Systems Program, Fielding Institute.

Wilson, G. (2000). Research Notes for the InterZone University Project, The Journal of Hannan University Ronshu Vol. 36, No. 2