

# Improving the American Education Experience for International Graduate Students

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## DEDICATION

I would like to dedicate this work to the international students studying in the Department of Informatics specifically the Human-Computer Interaction Design program. I appreciate your enthusiasm and support for this project and all of the help you have given me along the way. I have a great deal of respect for each of you studying in a language that is not your own. I sincerely hope my research makes a difference for students who go through the program in the future. Thank you for sharing your world with me.

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UBUNTU - "I AM WHAT I AM BECAUSE OF WHO WE ALL ARE."

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## **INTRODUCTION**

International students are an important part of our educational community. They have a life experience that is very different from those of American students and from other international students. Each of them brings their own culture, traditions, thoughts and beliefs with them from their home country. These different outlooks contribute greatly to the classroom culture.

Unfortunately many of these diverse voices are not heard in the classroom. Some of the reasons for this include language problems, uncertainty about timing and quality of questions, cultural differences and shyness.

International students are also in a unique position to potentially affect future relations between the United States and other countries. Many students will return to their countries of origin after graduation and become leaders; universities have the unique opportunity to influence these students. Those who have a good experience are more likely to leave with positive feelings about the United States.<sup>9</sup>

The presence of international students is also beneficial to American students beyond the classroom. Students who take the time to get to know international students and allowing the experience to increase their cultural sensitivities and skills in working with people from different backgrounds may be at an advantage in the marketplace.<sup>1</sup>

The origins of this project came from the question of why international students don't interact in class. Using a human-centered design methodology the researcher set out to understand the unique issues of being a student in a foreign country. The research showed that the environment outside of the classroom is equally as important as the environment in the classroom.

Through this research an attempt has been made at putting in place a structure that will create an environment where international students feel welcome and valued. The hope is by creating this environment student will be more likely to interact in the classroom, share their thoughts and have a better experience studying abroad.

## **LITERATURE REVIEW**

Much has been written about international students and their adjustment to the American education system. An exhaustive literature review of everything that is available on this topic would be a paper onto itself. What are presented here are ideas and thoughts that influenced the various stages of this project. The topics below are the primary areas where the research addressed.

### **LANGUAGE ISSUES**

Many international students learn academic English so they can function successfully in the classrooms but have little knowledge of conversational English used in social situations.<sup>7</sup> This causes problems when interacting with Americans since it is common to use words that may have a different meanings than its literal translation. An example would be the term "Break a leg" which is often used to wish good luck to someone in a play. To an international student this sounds like

someone is wishing for their friend to get hurt, to the American this is the traditional way to wish someone in a performance good luck. There are a number of other situations in which an international student may misunderstand the intentions of an American. Because of this care must be taken in word choice. If phrases or idioms are used they should be explained. This is an adjustment for most Americans since they are used to people being able to understand the intention of what is being said.

### **ADJUSTMENT PROBLEMS**

International students have to rapidly adjust to their host culture and the “culture” of education while at the same time trying to preserve their culture identity.<sup>14</sup> This can be difficult for many students who may be away from their home country for this first time. These students are a resilient group moving far away from home to study in a language and culture that is not their own but homesickness and loneliness are pervasive and depression is common.<sup>20</sup> When a student is under stress they may not realize they need help since many people tend to manifest stress through physical symptoms. This could cause someone to believe the problems are a physical ailment leading to an underutilization of counseling and mental health services. Cultures that frown upon the use of counseling services may also prevent students from seeking help.<sup>10</sup>

Students who enter another culture are deprived of their traditional sources of social support and the means by which it was communicated.<sup>10</sup> The presence of friends from a student’s home country is important since they can provide social support and help people coping with the anxieties of adjustment. This group of friends provides a sense of belonging and a connection to home.<sup>3</sup> When a student isolates themselves to this group of friends the student’s adjustment is hindered which can also impact them academically.<sup>13,18</sup> The student also misses out on engaging in the university culture and with other students.<sup>4</sup>

### **CLASSROOM INTERACTION**

When it comes to classroom interaction some students have trouble understanding what is going on. Other students have classroom cultural backgrounds that hinder them and even more have difficulty being able to truly express their thoughts in English.

Asian international students are particularly anxious about classroom interactions. Many of their issues are rooted in language confidence. Developing confidence in language skills is critical to being able to follow the academic discussion.<sup>5</sup>

A student that comes from a classroom culture that does not encourage interaction causes many students to be reluctant to give a personal opinion or to involve themselves in a class discussion.<sup>16</sup> Many students worry what native speakers will think of them if they speak up. Students are afraid if they say something incorrect or has already been covered they may appear dumb or foolish.<sup>8</sup> This can cause many students give up good ideas for class discussions since they are either too shy to speak up or can’t find the right words to express their idea.<sup>8</sup>

### **PEER PAIRING**

Students who have higher degrees of interaction with students from the host culture are associated with lower levels of cross-cultural difficulties and higher satisfaction with their experience.<sup>6,13</sup> This

is due to students being more likely to learn the social rules and social skills pertaining to that culture. This in turn allows them to experience less social difficulty in their cross-cultural interactions. <sup>2</sup> Helping create cross-cultural interactions through the use of host or buddy programs can help facilitate these types of relationships. <sup>18</sup>

## **FEAR**

The quote that seemed to encompass much of what was found in the literature review and the later research is one from the paper by Li, in the words of one of the coauthors Fox “...what resides at the root of so many problems with international students is fear – fear of saying or writing the wrong thing, fear of not appearing responsive or sufficiently smart or knowledgeable, fear of embarrassment, fear of being different, fear of not fitting in. In short fear of being foreign. ... it causes considerable problems for the students ... and needs to be address by all of us.”<sup>8</sup>

Many things outside of the classroom influence the student’s comfort and confidence inside the classroom. Increasing classroom interaction cannot be done using a system in class alone. Instead the creation of an environment where international students feel welcome and valued is the key to helping this population.

## **SURVEY**

Based on the literature review a list of questions was compiled to explore the primary issues found. A number of the questions for the survey were inspired by surveys conducted by Rajapaksa <sup>15</sup>and Surdam. <sup>19</sup> The survey was conducted online to insure anonymity and to facilitate the ease of return. Please see Appendix 1 for a copy.

The survey was first distributed within the Department of Informatics at Indiana University. An invitation to complete this survey was sent to the interdepartmental graduate student listserv. This survey received 32 responses from 11 females and 21 males. The majority of the respondents were Master’s students and the dominant country of origin was India.

The results from this survey were reviewed and the scale was revised to give respondents 5 points instead of 3 to express their opinion.

The second version of the survey was distributed to all international graduate students through the Office of International Services listserv. This survey received 156 responses from 80 females and 76 males. The majority of students were PhD students and the dominant country of origin was again India. The purpose of this survey was to confirm the findings from the previous survey with a larger cross section of the university.

The survey results presented here are from the larger campus wide survey.

## **QUANTITATIVE ANALYSIS**

The data analysis for this section was done using Tableau software connected to an Excel database of results.

## CULTURAL UNDERSTANDING

International students derive a large amount of comfort from American students understanding their home country. This comfort outside of the classroom leads to more comfort inside the classroom. International students who felt American students had at least some knowledge about their country were more likely to feel comfortable asking questions in class.

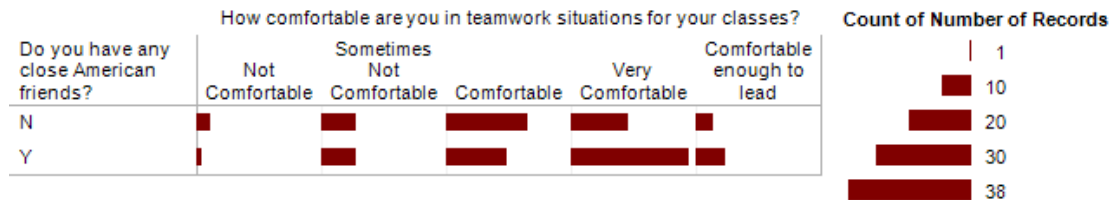


**FIGURE 1** - HOW WELL INTERNATIONAL STUDENTS FELT AMERICAN STUDENTS UNDERSTOOD THEIR COUNTRY WITH THE COMFORT LEVEL OF ASKING A QUESTION IN CLASS.

A similar pattern emerged when looking at the intersection of American student knowledge of an international student's country and interacting with the professor and other students in class.

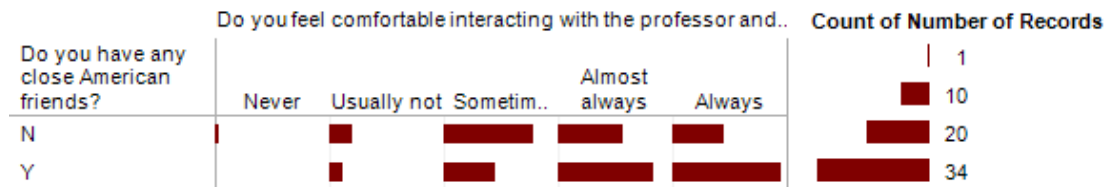
## AMERICAN FRIENDS

Relationships with host national students have been found to positively influence the international student's experience.<sup>19</sup> This survey found that strong relationships with American students helped students in teamwork and classroom interaction situations. Most students who indicated they had at least one close American friend were more comfortable in teamwork situations and interacting in the classroom. In the survey close was defined as someone that the student felt they could share their personal thoughts with.



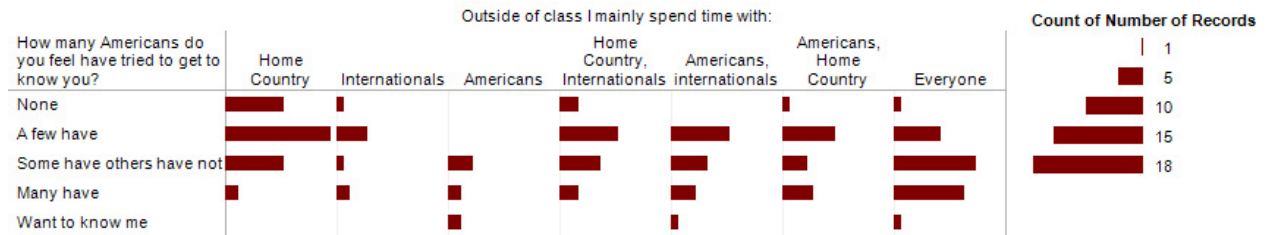
**FIGURE 2** - PRESENCE OF A CLOSE AMERICAN FRIEND WITH COMFORT IN TEAMWORK SITUATIONS.

Close friendships were chosen since the literature indicated many international students felt friendships with American students didn't go beyond the superficial. The researcher felt it was important to understand the impact of stronger friendships on international students.



**FIGURE 3** - PRESENCE OF CLOSE AMERICAN FRIENDS AND COMFORT IN INTERACTING WITH THE PROFESSOR AND OTHER STUDENTS IN CLASS.

Creating these friendships with Americans is not something that comes easily. When asked how many Americans have tried to get to know them, most students indicated only a few had. Overall this study indicated that international students generally fell into one of two categories as far as friend groups. Students either stuck very closely to people from their home country, which was the majority or students were social with people from all countries including Americans.

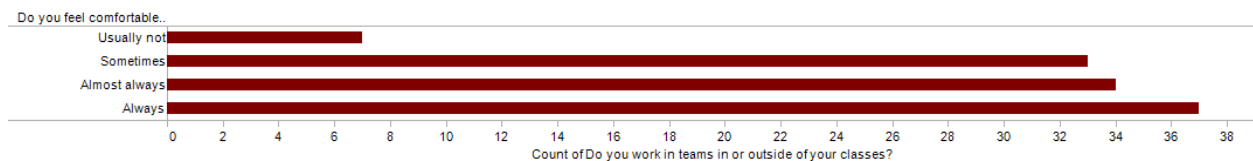


**FIGURE 4** - COMPARISONS OF STUDENT FRIENDSHIP GROUPS BASED ON AMERICAN STUDENT INITIATIVE TO TRY AND GET TO KNOW INTERNATIONAL STUDENTS.

### TEAMWORK

Teamwork can be very beneficial for international students. Students who work in diverse teams are exposed to a variety of different viewpoints and backgrounds. These diverse teams put students together who may have never chosen to work together. Presentations at the end of these projects give students the opportunity to speak in front of the class with information they have had the opportunity to prepare in advance.

International students on these teams seem to get an additional benefit from this interaction since it makes them more confident to interact in class. When the options of never and usually not were filtered from the question of whether a student works in groups and was compared to confidence in interacting in class the number of students who fall into the always and almost always category is higher than the group as a whole. The more exposure to groups the student has the more the confidence the student has in interacting in class.



**FIGURE 5** - COUNT OF THE NUMBER OF RECORDS INDICATING STUDENTS DO WORK IN GROUPS AT LEAST SOME OF THE TIME CORRELATED WITH THE COMFORT LEVEL OF INTERACTING IN CLASS.

Teamwork has a similar affect on students' confidence in asking questions in class where the highest concentration of students is at always feeling comfortable asking questions in class. The lowest concentration corresponds to never working in groups and never being confident to ask a question in class.



*"I'm too shy to talk freely in class. And I'm always worried about am I saying right or not? You know what I mean. And they can understand my English well and so on."*

*"I won't say anything unless I'm very confident that my contribution is very "smart" and doesn't sound "stupid"."*

*"I feel they all know way more about the subject than I do. I feel ignorant and I think my comments are dumb."*

#### **LANGUAGE AND CULTURE**

Language issues and cultural differences were discussed by students not only in this question but also in every one of the open-ended questions. When students arrive in an English-speaking country they don't expect the difference between conversational and academic English. The conflict between conversational and academic English is the first and most severe difficulty.<sup>8</sup>

*"Sometimes my American classmates speak too fast and in a small voice or use slangs which confuse me."*

*"I can't be as profound and/or accurate in my speech as I would be in my native language."*

Many students came from parts of the world where interacting in the classroom is discouraged. This can be a large hurdle for many to overcome.

*"I sometimes feel comfortable sometimes not, but the main reason for this is not my English skills. In Turkey, usually there is not much interaction in classes. So, I am not used to it. Therefore, sometimes it can be difficult for me interact in a class."*

#### **CLASS CLIMATE**

Class climate is also was another issue. Students who felt uncomfortable in class were much less likely to speak up than those who were comfortable. Getting to know the professor and other students in the class outside of class also helps students be more comfortable. Not knowing the professor and other students can be detrimental to that student's classroom interaction.

*"I was never introduced to my colleagues who all have started their PhD last semester."*

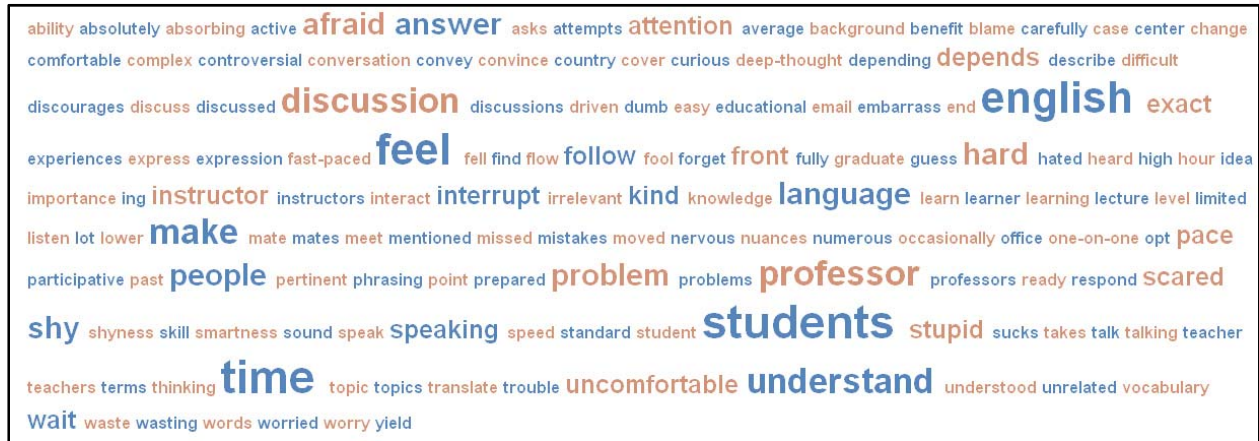
*"It depends on the instructor and class climate. If I know the instructor does not trust my abilities then I get shy, less confident and stressed."*

*"I'm not afraid of speaking up although I may not always do so. Most of the professors and students in class are friendly and care what I have to say in and out of the class. I think that people who you interact with make a big difference."*

*"My professors always try to understand me and helping me, though my English is really bad. The kindness motivates me when I have troubles. Thus I really appreciate them."*

## ASKING QUESTIONS

They key issues surrounding a student's hesitation to ask questions in class are fear of not being understood, interrupting the class, having a quality question and the discussion moving on. Issues with language and cultural background were also seen in this section as well. Many students cope with these problems by asking questions after class or via e-mail. The problem with this method is that it deprives the class of the discussion of a potentially interesting or insightful question.



**FIGURE 8** - TAG CLOUD FOR THE FREE TEXT RESPONSES TO IF YOU HAD A QUESTION YOU WANTED TO ASK IN CLASS WOULD YOU FEEL COMFORTABLE DOING SO?

## UNDERSTANDING/INTERRUPTION/QUESTION QUALITY

Students are concerned they might not ask a good question because of not understanding what is going on. Another issue was not being able to express their thoughts in English properly. Some students were concerned about the asking their question at the wrong time and disrupting the class.

*"If is a deep-thought discussion or a fast-paced discussion I would never speak because I'm afraid I'll lower the level or the speed of the class."*

*"I don't want to interrupt the class. Also sometimes, my questions may make me look like a fool."*

*"I'm little afraid the question is already discussed in the class because I sometimes cannot follow the class well."*

## DISCUSSION MOVING ON

Students indicated sometimes they need time to think about what they want to say. By the time many have decided what they want to say and found the right words the discussion had moved on.

*"...I think that my question is not of a high standard or pertinent to the discussion. Also because I am sometimes not sure of the exact phrasing of my question."*

*"I have many questions in discussions but I cannot follow the pace of them. Sometimes the topics change already when I want to ask something."*

## UNDERSTANDING THE PROFESSOR

Cultural references, speed, volume and accent of spoken words are the primary issues international students face when not being able to understand the professor. Students can find any one of these items such a block that they may not understand large portions of the class.



**FIGURE 9** - TAG CLOUD FOR THE FREE TEXT RESPONSES TO DO YOU SOMETIMES HAVE TROUBLE UNDERSTANDING THE PROFESSOR?

### SPEED, VOLUME AND ACCENT

Learning in a different language is difficult enough if you don't have the added problems of people talking too fast, quietly or with an accent. A study of undergraduate international and Australian students by Robertson, Line, Jones and Thomas found the speed of lecturer's spoken English exacerbated the problem of understanding by international students. The international students viewed their lack of confidence with the language as the source of their problem. <sup>16</sup>

*"Speak fast, which is not so much of a problem as long as they speak clearly. Throws in jokes without changing their facial expressions; makes it hard to differentiate from the actual content that we HAVE to understand and the joke part that I would like to understand but may not be so relevant to the class content."*

*"Sometimes if a professor is a foreigner then I have difficulty understanding the accent first and later I get used to it."*

*"Some professors speak too quiet and for a student it is really hard to tell them to speak up."*

### CULTURAL REFERENCES

Using examples of American culture in class was the most frequently mentioned problem in understanding the professor. Students have problems understanding things they may not have been exposed to since most of them have not been in the United States for long. They may also not be aware of current events that are not extremely pervasive on campus.

*"Sometime when the story/joke/comment is typically American or rooted in the American culture, I might not understand because I do not know what it connects to."*

*“When the professor mentions topics related to American culture or things that happened on TV, politics or economy I may not know what he is talking about. Sometimes, he may also use some words I never heard before.”*

## **INTERVIEWS**

A number of the topics that were found through the survey were explored further in interviews. Students volunteered to be interviewed after a recruiting e-mail was sent out to the interdepartmental graduate student listserv. Ten subjects were interviewed, 6 male and 5 female. Students from Southern and Southeastern Asia were targeted since they seemed to have the largest number of difficulties of the international student population.

The interview did not have a strict structure; the subject was allowed to talk about anything they wanted to. Questions were used as a conversation starter and to make sure all of the points were covered with each subject. The questions that were asked primarily regarded classroom interaction, language and friendship circles. Based on the results from the survey a few concepts were formulated, interview participants were asked to evaluate these ideas. Please see Appendix 2 for a copy of the questions.

## **FRIENDS**

Many of the students indicated a preference for people from their home country. Students said this was primarily due to the fact that they live close together which allows them to shop together and cook together. This caused them to be together a lot more than they are with other students.

Second year students seemed to have more of an understanding of the importance of a diverse group of friends. They struggled to create these cross-cultural connections after isolating themselves for so long.

Transportation is an issue for most international students since most don't have cars. Public transportation is helpful but don't always run to the places where students are meeting and at the times needed. Many American students have cars but most international students are hesitant ask for a ride since they fear they might be seen as a burden or a bother.

All of the students indicated that someone who is friendly and takes the initiative to start a conversation really helps. Many students were very shy about talking to Americans especially if they had doubts about their ability to communicate in English. They were not sure Americans would want to take the time to understand them since they may not be able to express exactly what they want to say the first time.

*“Communication is a complicated thing. We have a different way of understanding and a different point of view. I am not sure if they can understand completely.”*

The primary hesitation for many international students in conversing with Americans was finding common ground to discuss. Since classes are generally the easiest common ground, most students want to talk about that. Many students worried it wasn't always a proper topic of conversation outside of school. If this topic of discussion is taken away it is difficult for some international

students to find something to talk about. This can cause students to worry about finding an appropriate and common topic of conversation. This is one of the main reasons cited by students for anxiousness in spending time with Americans outside of class. When students are with people from their own country they don't have this problem.

*"I feel we are trying to understand each other's situation and that is enough for me."*

Students enjoyed activities such as sports, movies or a cultural event. The activity allowed students an instant topic of discussion which seemed to break the ice for conversations that could go further. A group of students started a Saturday morning basketball game that was well attended by both international and American students. Many of the students who participated indicated they were able to talk to other students about things beyond basketball and learned more about each other.

Opportunities for students to experience American culture were also appreciated by international students. One student said she felt more like she was in the United States when she participated in these activities. Students enjoyed going to events from other students' cultures but sometimes were unsure as to what they should be doing if it wasn't their event.

Many of the American students plan events using the Facebook events feature. This feature allows students to create an event with all of the important information and send invites to the people they want to attend. People who wish to attend are encouraged to RSVP on the event page. When someone RSVPs a photo and link to their Facebook profile is displayed on the event page. International students said they liked having the Facebook events feature since they could see who was coming and could easily participate if they wanted to. Some also used the feature of knowing who was coming to find transportation.

Some students said that they were not sure if they were really invited to these large events since they did not receive a personal invitation. A few students indicated they were more likely to show up somewhere if they were asked personally by the person hosting the event.

One Chinese student had problems interacting with Americans at first because Americans are so different from her physically. It was very different for her coming from a country where most people had similar physical attributes. She felt that she couldn't get to know an American like she does someone from China due to the cultural differences.

*"You just see all of the people are people. They are only people. Not US, not China, not Chinese, not Korean they are just people you just treat them the same. But it is hard to treat people as the same."*

A few of the students had completed their undergraduate education in the United States. They both indicated that in graduate school they felt more welcome than as undergraduates. One student said in undergrad he was ignored as an international student.

*"Informatics is a little bit better they care in the graduate school but undergrad it was horrible."*

*"After I come to grad school people are more friendly."*

### **AN EXCEPTION TO THE RULE**

One Indian student who has a number of American friends was chosen as an interview subject. The researcher wanted to understand how he got over any fears he may have had about interacting with Americans.

*"I came with this open mindset. Initially for like a month just I hung out with just specific small Indian groups then I kind of realized it is not very different from India if you do that. Although you feel like you are at home...I actually wanted to break away from all of that."*

At first he was concerned about interacting with American students. The social nature of the graduate program he is part of helped him get over this fear.

*"I didn't know if American students might like me. They might think I am dumb because I am doing this. That definitely was there for like a month. Especially in the first month when I was walking around the campus and everyone was American and very few minorities."*

After getting to know some Americans he started taking the initiative to call people to go do things. He also wasn't afraid to ask for a ride or figure out how to get there using public transit. When he took the initiative it reciprocated on both ends.

*"Probably the biggest reason is that a lot of Americans accepted me."*

### **CLASSROOM INTERACTION**

Difficulties with classroom interaction come from a variety of areas including language difficulties, problems understanding the instructor and cultural background. The interviewees explored their personal experiences in these areas and add a few new views on the topic.

Personality does play into how confident a student is in interacting in the classroom. A student who indicated that he was very bold in his home country said he speaks up a lot. Another student who is very shy has more difficulty speaking up.

One area where students struggled was finding a way to relate class material to what they already knew. Students indicated it would be helpful to give a general overview of what was going to be discussed before starting the class. Another suggested giving an example related to their core academic knowledge such as the program of study when introducing a new topic.

In Asian classroom culture it is not common for students to raise their hand and ask questions or say something in front of many people.

*"Even though right now I feel I should ask more questions it is still difficult to change the behavior."*

Many students have problems getting the courage to speak up in class. A few students said they had to force themselves to do so. One student talked about how she didn't ask questions in class very often during the first year of the program. The second year she has more questions and feels it is important for to be more involved in the class no matter how difficult it is.

*"I think asking questions or interacting with the class is what I need to do because that is my responsibility to talk or interact with the class."*

Even when students do speak up many have concerns about making sure what they intend to say is expressed properly in English. Sometimes if they try and tell a joke or be funny it may not be taken as a joke since they may not have translated it properly. This is a cause for concern since something that was intended to be funny might be taken the wrong way.

Knowing your classmates outside of the classroom helps students want to interact more in class. One student said since people within his major know him and his work he doesn't worry about people seeing him as stupid for something he might say in class. He is self conscious about speaking up in classes where he doesn't know the other students.

Group projects are very helpful for students to get to know other students in their classes. One student said most of the people he knows from outside of his country are people he met through group projects. He said he would often seek out teams with people on it that he wanted to get to know better. When he has worked on teams with people he is more comfortable talking to them outside of class.

Group projects are not perfect can cause issues with international students. One student told of a group project situation where he was partnered with two Americans and it didn't work out well. He felt the American students didn't want to listen to his ideas. He tried to push his ideas in meetings but they were only open to their ideas. This caused him to feel that his ideas were not good enough. The instructor saw some of his ideas and brought them in front of the class as good examples. Even after this it still bothered him that his teammates didn't want to listen to his ideas.

Presentations of group projects can help students become more confident in speaking up in class. Having the opportunity to present about something they helped to create and can prepare what they want to say gives them more confidence to speak. Students said being put on the spot to say something was very helpful if they were prepared. This technique forced them to speak in class when they may not have volunteered to do so in the first place.

One student indicated that at the beginning of the semester she didn't say anything because of English issues as she got to know her class and professor better she began to speak more.

*"Was thinking if I didn't say anything about my opinion I might be seen as stupid. I am just trying to express my ideas. In the middle of the semester I would frequently ask (the professor) about my questions and opinions and share together."*

Getting to know the instructor outside of the classroom helps students to feel more comfortable in class. Taking the time to get to know an international student outside of the classroom it goes a long way.

*"If I go into a class and then an American student or even the professor talks to me before the class begins I am more likely to ask a question in class."*

Instructors who show students they will take the time to understand the student's intentions behind sometimes broken or incorrect English helps students become more confident in interacting in class.

*"I think Jeff (the professor) is trying to understand my intentions so whenever I say it in the wrong way he tries to understand my intentions."*

When instructors don't try to understand students they may feel embarrassed and become discouraged to speak up in class.

*"When I first ask questions I am not worried about it but I see (after asking) two times the professor is still looking at me saying nothing I feel embarrassed and I don't want to ask anymore."*

Since English is not the first language for international students it can sometimes be difficult for students take in the discussion, come up with a question and translate it into English. By the time many students have done this the discussion has moved on.

*"I think we are used to thinking more slowly. We are just absorbing and we slowly process it. After we go home then we would think "Ah I have a question." Then and only then we would e-mail the AI or professor."*

An Indian student said that discussions where students are thinking out loud and exploring one topic for a little while were helpful for him. This way he could listen to what people were saying and then express his thoughts before the topic changed.

Understanding the instructor is difficult for international students for a variety of reasons. The primary problem that came up with this group was cultural references. Students had difficulty in understanding what the professor was trying to illustrate with the reference and why it was important to the lecture.

Students felt sometimes instructors used very complex terminology when it was not necessary. If the professor used simple words it would be easier for them to understand the class. This is helpful since students may not have mastered more complex English words. The researcher observed one student using an English to Chinese dictionary to look up words from the instructor's slide deck.

*"The first thing I have to do is try to understand you first then I can express myself."*

#### **AN EXCEPTION TO THE RULE**

Chinese people can very shy which may create difficulties in classroom interactions. A strong educational culture deterrent against asking questions in class also exists in this group. One Chinese student the researcher interviewed seemed to not have many of the problems her fellow nationals exhibited in regards to interacting in class.

At home in China she was a very good student. Since her father was a teacher she was exposed to learning early on before she entered school. When she did start school the teachers knew her father and encouraged her to speak up in class. A really good piece of advice she was given was:

*“Whatever question you (have, you) just need to ask, if you don’t ask you will never learn something. If somebody else asks it is not your question.”*

In China the professor typically gives a lecture, students don’t ask questions and there is no discussion since you can’t disrupt. The advice she received early in her education stuck with her in college. She continued to be an active learner and would approach the professor after class for clarification if she had any questions.

Her English isn’t always clear and sometimes she has trouble understanding what people are saying so she has adapted. She always sits in the middle or the front of the classroom so she can turn around and watch people talk. If she can see someone’s mouth move it is easier for her to understand what they say.

She has had some problems with professors in the United States not taking the time to understand what she was trying to say. Even with these experiences she never let this discourage her. One incident discussed was when she tried to ask the professor a question. He couldn’t understand her so she asked again. After the second time he asked the class if they could translate the question into English when she was speaking English. A student who wasn’t as strong as her would have been crushed by an experience like this.

*“The professor mentioned some software I never heard of and I asked “What’s that?” and my classmates laughed. I thought why do you laugh I don’t know that. Maybe it is very popular software in the U.S.”*

### **AMERICAN KNOWLEDGE OF HOME COUNTRY**

International students want people to understand where they are from. When there are misunderstandings about a student’s country of origin someone may inadvertently say something that could cause the international student to feel uncomfortable. Perceptions of being from an uncivilized or primitive country can make the international student feel that Americans don’t think they have much to offer in an academic discussion. Sometimes students can feel discriminated against due to their status as an international student. <sup>8</sup>

One student explained the reason he didn’t interact in class was because he didn’t feel he belonged since his classmates and instructors didn’t understand his international background. Many of the students felt Americans didn’t want to know anything about their country. Others felt their country and culture was not understood by Americans.

Most students enjoy talking about their country and culture as long as it is done with respect. Some topics may be sensitive so asking before bringing up potentially controversial subjects is advisable. One student felt uncomfortable when people would talk about the amount of poverty in India or would make fun of the culture. This upset him since they didn’t really understand what is going on and he felt like they just wanted to find things to laugh at.

A student was asked by an American if they had McDonalds in Indonesia. They do have McDonalds along with a lot of imported American culture there. The Indonesian student felt like the American

thought he was from a country that wasn't as sophisticated as the United States. He also felt that the American was not very well read since they didn't understand other countries beside their own.

*"I personally feel really good when people understand where India is, from which part of India you are. A lot of people confuse India and Pakistan which are like the difference between the United States and Mexico."*

### **COMFORT WITH ENGLISH**

Language problems were the primary reason cited by students as to why they don't interact in class. Many students find it difficult to comprehend spoken English. Students learn English in their home country but typically don't speak it outside of the classroom. Adding to that the difference between academic and conversational English creates a problem when students come to the United States.

Coming up with the right words to express what a student wants to say can be difficult. Sometimes when a student doesn't know the word they want to use they will try to describe it through gestures. Not everyone has the patience to listen to international students that struggle with their English. A few students had experiences where they were talking to people and they could tell they had stopped listening. The people still pretended that they were listening but the students were able to tell that they were not.

Most of the students interviewed indicated that they typically speak their native language outside of class to their friends. Many students also take notes in their native language since it is faster.

Students with more confidence in their English skills have more confidence in the classroom. Spending time talking in English with students outside of class helped at least one student feel more comfortable in class.

*"Some days I talk more than other days. The day that I talk more is when I talk more to the local people if I spend the entire day with my Chinese friends I talk less in class."*

### **CONCEPT FEEDBACK**

Feedback from the interviews helped improve and shape the direction of the concepts. The final concepts will be discussed in detail in the next section. The interviewees were asked for feedback on the following ideas:

- AIM style chat in classroom, allowing students to send messages textually to the instructor with either their name attached or anonymously.
- Mentor/mentee program. American students paired with internationals and internationals paired with Americans.
- E-learning site to teach other students about the countries current/incoming students are from. A list of commonly used words from that country so other students can learn some of that language.

### **AIM CHAT IN THE CLASSROOM**

Most students were more comfortable with written than with spoken English, which seemed to make this a viable concept. Students liked the idea of being able to message the instructor using written communication. One student expressed a desire to be able to choose either the identified or the anonymous option depending on the question or comment they wanted to make.

### **MENTOR/MENTEE PROGRAM**

This idea was received in an overwhelmingly positive manner. Students really liked the idea of being matched with someone from America for them to start to build a friendship with. One student suggested making sure the mentor gets in touch with them so the incoming student knows they are not bothering them. Another student didn't like the names mentor and mentee since she felt this implied a hierarchy of the relationship. She was uncomfortable with this hierarchical relationship since the program was mainly for friendship.

### **E-LEARNING SITE**

This idea was described as a site where students could create a repository of information that they wanted people to know about their countries. The students would be responsible for putting the information on the site and making sure it was kept up to date. The reaction to this concept was not as strong as the other ones. Students did think it would be valuable to have so students could get the information about their country they felt was important. The suggestion of having basic terms such as hello and goodbye in different languages was something a few students were interested in. Students really seem to enjoy it when an American takes the initiative to try and learn a few words from their language.

## **CONCEPTS**

Based off the literature review and research a few areas were identified which might be able to be addressed with a few concepts.

- Lack of confidence in classroom interaction
- Concerns about English skills
- Low number of cross cultural friendships
- Desire for people to understand their culture/background

The overarching idea behind everything is to create an environment where international students feel welcome and valued. According to Li creating a caring/positive environment for international students is very important for them to feel comfortable in the United States. <sup>8</sup>

### **UBUNTU – INFORMATICS FRIENDSHIP PAIRS**

Contact with American students positively influences international students' academic experiences. Students who were involved in an 8-month program that paired them with host national students had higher grades and higher retention rates than those who were not involved in the program.<sup>21</sup>

In a different study international students who were paired with local Australian students felt they had gained more knowledge about cross-cultural communications, understood Australian customs

better, had made friends with their host peer, felt more relaxed in the environment and had improved their English skills as a result of the program. The Australian students said they had gained more knowledge of other countries, understood more about Australia and its customs and gained in cross-cultural communication skills.<sup>14</sup>

With much of the research pointing to the benefits of international students interacting with host nationals and other international students the Ubuntu friendship program was created to help facilitate these relationships. The researcher didn't want there to be a hierarchy between the current students and the incoming students so a name was chosen that did not imply this relationship.

Ubuntu is an African term meaning *"I am what I am because of who we all are."* The idea behind this word seemed appropriate term for the program since when everyone contributes to the academic atmosphere we shape each other.

The program is intended to match incoming international students to current American students and vice versa. International students who spent more of their free time with Americans were better adapted than those who spent their free time with conationals.<sup>19</sup>

Working with two international master's students we worked out the details of how to implement this program. We found a similar program had been operated by the School of Education. We met with the faculty advisor who had worked with this program to understand how their program functioned and what happened to the program.

The program in education was created for the purpose of academic mentoring. This created difficulties because the mentors were receiving a great deal of pressure from their mentees for help with coursework. The pairs were also instructed to meet once a week, which wasn't always feasible with the hectic schedule of a graduate student. This was another reason to concentrate our efforts on a friendship program.

We created a survey for interested students to fill out in order to participate in the program. Links to the surveys were sent to current students and incoming students using those respective listserves. We received requests for matches from 52 incoming students and volunteers to match from 31 current students.

The ideal match would be within the program of study and American to an international student. Since there are more international students than American students currently in the program the model was modified to match across cultures. Students were matched first on program of study, then across cultures and finally by professional and/or personal interests.

Unfortunately we did not receive enough volunteers from the current students in the Bioinformatics Master's program so we had to match them as secondary friends to Human-Computer Interaction Design Master's students based on interests. Most current students ended up being paired with two incoming students.

The program is designed so that the pairs will talk over the summer, meet during orientation week and then continue to meet throughout the year. The two students who are leading the program will also plan activities for the pairs during the semester in order to assist them in getting together. The activities will be centered on some sort of event so there is common ground for the students to meet more people outside of their pairs.

To assess how the program is going three surveys are planned. One will be conducted at the end of the summer another right before the holiday break and a third at the end of the school year. Feedback from these surveys will be taken into account and the program adjusted as needed.

## **TEXTUAL QUESTIONS**

One piece of research that stood out and influenced the development of the textual questions concept was from Li's paper, "Is there any possibility of helping international students with their language and reducing their feelings of embarrassment, anxiety, and frustration." <sup>8</sup>

The idea behind textual questions is to create a system that will help international students gain confidence in their language skills. This is accomplished through allowing them to express their thoughts in a written manner and giving them an outlet for expression where they don't have to be identified. When the instructor recognizes and addresses their question/comment posted in the system the goal is achieved by showing students that they have questions and comments that are valued. It is recognized that technology can play a part in social isolation if it substitutes for face-to-face interaction. <sup>12</sup> The hope is once the international student has heard the instructor answer a question/comment they have posed this will build their confidence and lead to verbal classroom interaction.

Based on the survey and interviews with international students most of them indicated they were more comfortable with written English. This seemed to be because the students didn't have to worry about mispronunciation and since many students had more practice in written English than spoken English. <sup>8</sup>

## **SETUP OF THE SYSTEM**

Textual questions allow the student to communicate directly with the instructor using a shared anonymous account or an account in the student's name. The communication is a one-way communication through which the student submits a question or comment to the instructor using the direct messaging function of the Twitter client. The instructor receives the message on a small screen at the front of the room that only the instructor sees. The instructor monitors the screen for questions and addresses these verbally. The instructor is encouraged to recognize good questions from the system in order to build the confidence of the asker.

The other variation on the system displays the instructor's view at the front of the classroom so that all of the students can see it. This allows other students to answer the questions as well as the professor.

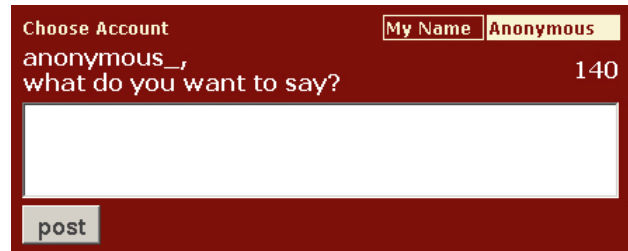
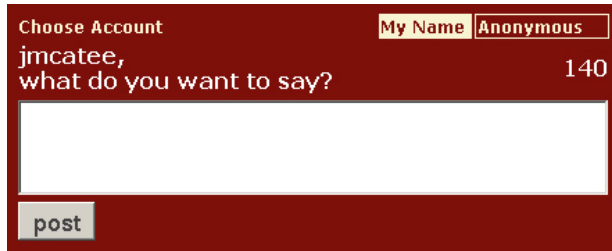


FIGURE 10 – THE NAMED AND ANONYMOUS INTERFACE.

Students are encouraged to create a Twitter account so their questions can be submitted with a name but are also given access to a shared anonymous account. The purpose of this account is so students can ask questions they may not want to have their name attached to. This is also useful for shy students who are not raising their hands because they are nervous about speaking up.

### CONCEPT TEST

A test of this system was conducted with three graduate level classes over four class periods. The three classes were of different sizes one of approximately 12, one of approximately 25 and the third of approximately 40. Both variations of the system were tested. At the end of each test students were asked to fill out a short survey on their opinion of the system.

The first test, private messaging, allowed students to send messages the instructor. Only the instructor and the researcher saw the messages. The second variation, shared messaging, opened the instructor view to all students by having it projected at the front of the room and available on student's laptops. In both tests the messages were posted without any filtering.

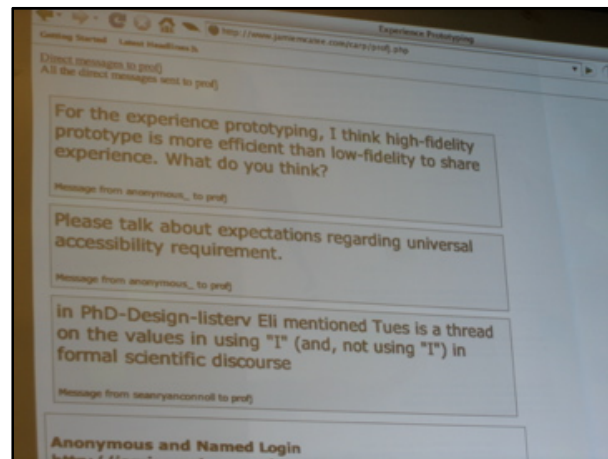


FIGURE 11 – SET UP OF THE SHARED MESSAGING SYSTEM IN THE LARGE CLASS.

The tests found most of the students preferred the shared messaging option. Students enjoyed being able to see what other students were writing. The anonymous option was also preferred. Use of the anonymous option was split between students who didn't want to set up Twitter accounts for the test but was also used by students who felt shy about speaking up in class.

Students in the small class didn't really use the system that much. In the shared messaging test a guest instructor was present and none of the students used the system.

The large class used the system the most. Many messages were posted to the system during both tests. Some of them were relevant to the class; others were essentially noise in the system. The first day the instructor didn't understand the order that the messages appeared on the screen so his responses were delayed. This caused some of the students to doubt the system's immediacy. With this issue resolved the second day of the private messaging test students submitted a few good comments and questions. For the shared messaging test students used it to share ideas with other students along with the questions that were asked.

*"I put up an 'aside' comment for anybody interested in it - wasn't a directly relevant response and I did not want to tangent the class away from discussion, but, still had a thought I wanted to share"- American student*

*"I enjoyed having it in class. I liked being able to see others questions and ask my own. I'll miss having it in class from now on." - American student*

*"I used it when I wasn't comfortable asking the question in front of everyone."- Indian student*

*"I used the anonymous option. I liked the idea of asking questions without being identified. I didn't feel like I had to ask "smart" questions." - American student*

*"I did not actually ask a question. However, given an option that I can ask anytime, I felt I can engage more in class." - Korean student*

The medium sized class used it for a conference call. The instructor received messages from the students and would then either recognize the student to so they could ask their question out loud or ask the question for a student. The medium sized class did not get an opportunity to test the shared messaging option. The large class also used the system in a different way when they had group breakout sessions. The students were able to message the instructor from other parts of the building to indicate they wanted assistance or had a question.

The use of the anonymous option and the unfiltered messages did prove to have some problems. Students in the large class used the system for jokes and other comments that were not class related. This generated a large amount of information for the instructor to have to read and decide if it was relevant to the class.

There were also some issues with the instructor not using the system properly. In the small class the instructor didn't look at the posted messages until the end of the class so the student's feedback was not address in a timely manner. This contributed to the lack of interest in the system among students in that class. In another case the instructor thought the messages were coming from the bottom up and not the top down so there was a long delay in the instructor reading and addressing comments and questions. This problem was addressed before the second day of testing of the private messaging.

Based on this feedback two revisions were made to the system before one final test. Instead of letting the messages come through unfiltered, non-class related comments were removed. The second piece added was a manual flagging system so the instructor would know when there were

new comments. Three colored post-it notes were used to signal 1-3 questions, 3-5 questions and 10+ questions waiting to be addressed. This would allow the instructor to deliver their lecture without having to constantly check the system.

A test was conducted with an undergraduate class of approximately 30 students over two class periods equivalent to the length of the previous class period tests. Students were asked to set up a Twitter account and were also given access to the shared anonymous account. Both the private and shared messaging options were tested along with the revisions to the system. Students were informed that the researcher was filtering their messages.

In this instance the students again preferred the shared messaging system and the anonymous option. In this case the anonymous option was popular since most students didn't register for a Twitter account. The signaling system seemed to help the instructor concentrate on delivering the lecture without having to constantly check the screen for questions. When the researcher signaled the instructor to let him know there was a question he was able to wrap up his thought and then look at the screen. These two small revisions seemed to help the system work well in the class.

*"I thought it helped because a guy gave us a video clip of the Microsoft touch table, and that really added to the class." – American student*

*"I think it's a good idea- it lets you get ideas from people that may not have raised their hand." – American student*

## RECOMMENDATIONS

Through this project the researcher learned a lot about international students from both previous research and the international students themselves. Based off of this information a list of recommendations has been compiled to help both people who interact with international students and the international students themselves.

## STUDENT INTERACTION

### EVERYONE

**Be open and welcoming to all students.** This seems like a simple idea but it goes a long way when an international student feels you are genuinely interested in them.

The next three points are ones that came up many times in surveys and interviews.

**Use cultural references sparingly.** Students who are not from the United States don't have the same cultural background as American students. American culture is present in many countries but even with this many things are not universal. References to American culture, history or other topics the student has most likely not been exposed to can cause the student to feel uncomfortable and isolated. If you use a cultural reference to make a point find a way to illustrate what it means to students who may not understand.

**Don't use complex words when simple ones will do.** This is not to say that international students don't understand complex ideas and thoughts they are all very intelligent individuals. The

issue is with the unnecessary use of complicated English terms they may not have learned yet. If you can explain something in a way that doesn't need complex terminology you are probably benefiting more than just the international students. Introducing complex ideas using simple words are appreciated in order to allow students to comfortably add those terms to their vocabulary.

**Be conscious of speed when speaking.** When talking to international students most take in what you are saying and translate it to their native language before they process the information. When a student hasn't been in the United States very long this can be a problem since the process can be slow at first. If you are speaking fast students may not have enough time to understand everything you are saying. Most students won't speak up and tell you that you are talking too fast or that they don't understand you. Speaking extremely slowly may be seen as insulting since the student may think you are implying they are not intelligent. Instead find a comfortable pace where you know you have slowed your rate of speech down a little. Once you get to know a few international students ask them if they understand you. This can help you determine how slow or fast to speak.

**Patience and understanding go a long way.** Many international students are hesitant to talk to native speakers since they fear their struggle with English may cause them to be perceived as stupid. Another fear is the native speaker may not have the desire to try and understand what the student is trying to say behind the sometimes broken English. If you show students that you want to take the time to understand them they are more likely to speak to you and eventually other native speakers.

**Take the time to talk to an international student.** Take the initiative on your part to start a conversation with an international student. Try to find something you can both talk about. You will learn as much from them as they can from you. Plus you also give them an opportunity to practice their spoken English skills.

## **FACULTY**

**Encourage students to participate.** Three major issues were found that kept students from interacting in class; educational culture background, language problems and shyness. In many Asian countries students are taught to absorb knowledge from the instructor but to not challenge them. Modesty is an important value in the culture so more value is placed on listening than speaking.<sup>8</sup> Discussing with students your desire for them to ask questions and make comments can help them to overcome their past experiences.

Many international students may not have complete command of the spoken English language. This can cause them to be hesitant to speak in class for fear of not being understood or saying the wrong thing. Taking the time to understand what the student is trying to say helps their confidence and encourages them to speak out more in the future. Some students are shy and have trouble speaking up in class. They also often worry about the content and timing of their questions. Students can be concerned about breaking the flow of the lecture. Making sure students understand their thoughts and contributions to the academic discourse are valued helps all students engage in class.

**Presentations help students gain confidence.** Putting international students in a situation where they have to participate but are prepared helps them gain confidence in their spoken English. Asian

students can be particularly reluctant to participate in class discussions unless the instructor directly calls upon them.<sup>8</sup>

**Interact with students outside of the classroom.** Creating an environment where students feel comfortable interacting with you outside of the classroom can help students become more comfortable in the classroom. Talking to students outside of the classroom helps break down the authority figure image they may have in their mind, making you more human. Strong relationships with faculty and interest on the part of the faculty member in the student's professional development can provide a strong protective function against depression in international students.<sup>10</sup>

**Use common knowledge examples when introducing new concepts.** If you can create a reference back to something the student already knows this can help them make a connection to the new idea. Finding common knowledge can be difficult but if the student is part of a particular program of study then that program of study would be the best source of common knowledge.

**Find opportunities for more group discussions where students are thinking out loud.** When students are thinking on their feet and tossing ideas around this can create a comfortable environment for students. An issue that came up frequently in research was how international students often felt by the time they had figured out what they wanted to say the discussion had moved on. Creating a space for open discussion of ideas in large or small groups helps facilitate interaction. This allows students to collect their thoughts and then express them when they feel comfortable. Smaller group discussions can also be more comfortable since there are fewer people for the student to speak in front of.

**Create diverse project groups.** Mixing students up from different backgrounds and countries creates solutions with contributions from a variety of backgrounds. This can also create friendships. When you have to work together on a project you get to know one another well due to the amount of time you are spending together outside of class. In the interviews a student told the researcher that most of the people he talks to that are not from his country are people he worked on teams with. Working on teams allowed him the opportunity to get to know people better.

## **AMERICAN STUDENTS**

**Take the initiative to start a conversation.** Many international students can be shy about starting conversations with American students. Since many students struggle with English they are not sure if a native speaker will take the time to try and understand what they are trying to say. By taking the time to talk to these students you can learn a lot about other countries.

**Find common ground for conversations.** International students are often not sure about what to talk to American students about. They will often talk about school since this is something you both have in common. Although school is a good ice breaker much more interesting conversations can be found when reaching beyond classes.

**Plan events where there is an activity, i.e. sports, movies.** International students have an easier time starting conversations if there is a group event they can talk about. Conversations that start

with an event can eventually lead to more personal conversations. Activities create a shared experience that can also be discussed later.

**Help with transportation issues, most don't have cars.** International students want to be able to go and do things with other students but transportation may be a reason they can't get there. Students don't want to ask for a ride because they don't want to be seen as a bother. If you offer to give them a ride they are more likely to go.

**Share American holidays and culture, encourage them to do the same.** Sharing American holidays with international students can be a lot of fun. International students enjoy experiencing holidays and other pieces of American culture since it makes them feel more like they are in the United States. This also helps them to understand cultural references that may be made by instructors or other students. Encouraging international students to share their culture gives you the opportunity to experience holidays from around the world. You will also be able to experience many different cultural traditions.

### **INTERNATIONAL STUDENTS**

**Mix up your circle of friends don't isolate yourself.** Having friends from your home country is important since these people are your connection to home. These friends are valuable but you should not isolate yourself to this group. If you only spend time with people from your home country it can make it like you never left home. If you mix up your group and spend time with Americans and other international students. You will learn more about the culture of the United States as well as the culture of other countries. Students who isolate themselves to groups of people from their home country generally report a more difficult adjustment to the United States.<sup>13</sup>

**Speak up in class, share your ideas, your thoughts are valuable.** Your thoughts and ideas are important to both the academic and non-academic discussion. You have a unique outlook on life and may bring a perspective to a discussion or project that no one else may have thought of. Making your thoughts heard is valuable to everyone.

**Challenge yourself to speak English.** It is easier to just speak your native language to your friends but part of the reason you came to the United States was to improve your English. If you don't speak English you will never get better. Find a language partner, spend time talking to native speakers, talk English to other international students and your friends. The more you practice you have the better you will get.

**Don't be afraid to ask for help.** Sometimes you can get into situations where the problem is beyond what you can deal with. Don't keep these problems to yourself talk to an instructor, staff member, go visit the counseling services on campus, just be sure you talk to someone.

**Share your culture and be open to others.** Being in the United States you are in a culture that is likely much different than your own. Expose yourself to cultural experiences here but also share your culture with others. You have a lot to teach American and other international students about your home. Becoming familiar with American culture and phrases will help you in your studies and interaction with Americans.

## DEPARTMENT RECOMMENDATIONS

### CULTURE SHARING

Find ways to encourage culture sharing not only on the part of international students but also for American students. Encouraging all students to share their culture creates understanding and builds friendships.

A few ideas on how to accomplish this would be:

- Give each student or small group of students American and international a few minutes at the beginning of a class to share something interesting from their culture. This could be something as simple as a song or as large as a meal.
- Encourage international students to share their holidays. Students may not know how to find venues that are large enough to invite their classmates to join them. Have a student or other contact that knows this information and can assist in locating an appropriate venue.
- Create an online forum or wiki where students can start pages about their country. Include this information in the orientation material the students receive before they come to school. Have students put holidays, important topics, a few common words in their language that other students can learn along with anything else they want to contribute. The important part is for this to be their page about their country.

### CURRENT SUCCESSFUL INITIATIVES

There are a few things being done within the department that students really felt helped them to feel welcome in the United States.

- **Informatics Moment** – Informatics moment is an open forum for students to post questions/comments or thoughts about anything related to studying at Indiana University. Students really enjoyed being able to connect with their future classmates and current students. This was an especially valuable resource for students who were trying to find housing. Murphy discusses how an international student message board can be an invaluable resource as part of an orientation website. <sup>11</sup> The web board idea discussed in this paper is achieved through the Informatics Moment forum.
- **Orientation Slide Show** – On the first day of orientation a video slide show containing photos of the incoming students is displayed with their country of origin. Students really enjoyed seeing their photo associated with their home country and seeing others from around the world. Continuing this idea will help set the stage for the department as a place where international students are welcome and valued.
- **Encouraging Social Interactions** – In the past a point was made by the faculty to encourage students to take time and enjoy their time at Indiana University outside of class. The idea was reinforced in the Human-Computer Interaction Design program. Social interaction helps students get to know others which lead to students being happier in the program. Social support especially from the academic program is important to the well being of international students. <sup>10</sup>

## **FUTURE WORK**

Areas that might be interesting to pursue would be to look more at the friendships between Americans and international students. Learning which group took the initiative to make the first contact would be interesting to know. Many international students indicated they were hesitant to talk to American students. The survey data indicated that not many American students had tried to create these friendships.

Exploration of the way instructors construct cross cultural groups. Along with the friendships and problems that come out of these connections would make for some interesting work.

Further testing of the Textual Questions concept over a semester would be beneficial to find if it has an impact on student's confidence in class. The initial results show that it has potential to make this impact.

## **CONCLUSION**

This research presents a few new ideas; textual questions, connections between groups and classroom confidence and further explores some of the primary issues; language, understanding of the student's home country and cross-cultural friendships.

A majority of the issues presented here come back to student's feelings of being welcome, valued and included. The idea behind the research, concepts and recommendations presented in this paper is to create an atmosphere where international students feel they are part of and valued in the academic and social community.

The researcher hopes at least some of the ideas and recommendations presented here will be put in practice.

Creating an environment where international students feel welcome and valued creates a better educational and social experience for everyone.

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## APPENDIX 1 - INTERNATIONAL STUDENT SURVEY

### International Student Survey

#### Basic Information

**\* 1: How old are you?** Please choose \*only one\* of the following:

- 18-21
  - 22-25
  - 26-29
  - 30-34
  - 35-39
  - 40-44
  - 45-49
  - 50 +
- 

**\* 2: What is your gender?** Please choose \*only one\* of the following:

- Female
  - Male
- 

**\* 3: What is your major?** Please write your answer here:

---

**\* 4: Are you working on a Master's or PhD?** Please choose \*only one\* of the following:

- Master's
  - PhD
  - Neither
- 

**\* 5: What country are you from?** Please write your answer here:

---

**\* 6: What languages do you speak?** Please write your answer here:

---

**\* 7: Which language do you speak the most?** Please write your answer here:

---

**\* 8: How long have you been in the United States?** Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11
Months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

**\* 9: Have you previously lived in another country other than your home country and the United States?** Please choose \*only one\* of the following:

- Yes
- No

---

[Only answer this question if you answered 'Yes' to question '9 '] **10: Where did you live?** Please write your answer here:

---

[Only answer this question if you answered 'Yes' to question '9 '] **13: For how long?** Please write your answer here:

---

**\* 11: Do you have a spouse, partner or significant other?** Please choose \*only one\* of the following:

- Yes
- No

---

[Only answer this question if you answered 'Yes' to question '11 '] **12: Is this person in the Bloomington, Indiana area?** Please choose \*only one\* of the following:

- Yes
- No

---

## Friendships and Social Interaction

**\* 1: Outside of class I mainly spend time with:** Please choose \*only one\* of the following:

- people from my own country
- other International students.
- American students.
- people from my own country and other International students.
- Americans and other International students.

- Americans and people from my own country.
- Americans, people from my own country and other international students.

**\* 3: How would your friends from home describe you? Please choose the appropriate response for each item:**

	Very Shy and quiet	Shy and quiet	Sometimes quiet and sometimes talkative	Outgoing and talkative	Very Outgoing and talkative
Friends from home see me as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**\* 4: How comfortable are you socializing with American students? Please choose the appropriate response for each item:**

	Not Comfortable	Sometimes Not Comfortable	Comfortable	Very Comfortable	Spend Most of My Time With Americans
Comfort level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**\* 6: Do you have any close American friends?**

Close being defined as someone you feel you can tell anything to, someone you can confide in.

Please choose **\*only one\*** of the following:

- Yes
- No

**\* 9: How many Americans do you feel have tried to get to know you? Please choose the appropriate response for each item:**

	None	A few have	Some have others have not	Many have	I feel they really want to know me
Number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**\* 10: Do you feel accepted by Americans? Please choose the appropriate response for each item:**

	Not at all	Sometimes yes other times no	Most of the time	Almost all of the time	My best friends are Americans
I am accepted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**\* 11: How well do you feel American students know your country? Please choose the appropriate response for each item:**

	Don't understand at all	Have many misunderstandings	They have some knowledge	They know enough to make feel welcome	They know almost as much as me
Americans know my country	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Classroom

**\* 1: How comfortable are you with your English skills? Please choose the appropriate response for each item:**

	Not Comfortable	Sometimes Not Comfortable	Comfortable	Very Comfortable	I am as good as the native speakers
Comfort level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

**\* 2: Do you feel comfortable interacting with the professor and other students in class? Please choose the appropriate response for each item:**

	Never	Usually not	Sometimes	Almost always	Always
I feel comfortable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

[Only answer this question if you answered 'Usually not' or 'Never' or 'I feel comfortable' or 'Sometimes' or 'Almost always' to question '2 ' ] **3: Would you share why? Please write your answer here:**

---

**\* 4: If you had a question you wanted to ask in class would you feel comfortable doing so? Please choose the appropriate response for each item:**

	Never	Usually not	Sometimes	Almost always	Always
I am comfortable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

[Only answer this question if you answered 'Sometimes' or 'Usually not' or 'Never' or 'I am comfortable' or 'Almost always' to question '4 ' ] **5: Would you share why? Please write your answer here:**

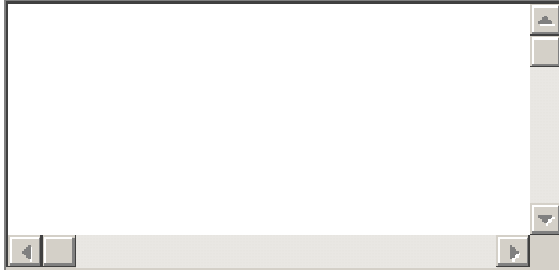
---

**\* 6: Do you sometimes have trouble understanding the professor?** Please choose the appropriate response for each item:

	Never	Usually not	Sometimes	Almost always	Always
I have trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

[Only answer this question if you answered 'Almost always' or 'Sometimes' or 'Usually not' or 'Always' to question '6 ' ] **\* 7: Would you share the issues you run into?** Please write your answer here:



---

**\* 8: Do you work in teams in or outside of your classes?**

Specifically projects and papers that have multiple team meetings.

Please choose the appropriate response for each item:

	Never	Usually not	Sometimes	Almost always	Always
I work in groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

[Only answer this question if you answered 'Sometimes' or 'Usually not' or 'Almost always' or 'Always' to question '8 ' ] **\* 9: How comfortable are you in teamwork situations for your classes?** Please choose the appropriate response for each item:

	Not Comfortable	Sometimes Not Comfortable	Comfortable	Very Comfortable	I am so comfortable I often lead the groups
Comfort level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

**Culture \* 1: How different is the American culture from the country you are from?** Please choose the appropriate response for each item:

	I feel like I am home	It is very similar to home	Some things are the same others are not	A majority of things are different	Everything is completely foreign
American culture is	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2: What if any of your preconceived notions of the United States ended up being true? Please write your answer here:**

---

**4: Is there anything not covered here that you would like to share with the researcher? Please write your answer here:**

---

**Submit Your Survey.**

## APPENDIX 2 – INTERVIEW QUESTIONS

My interest is in trying to understand what it is like to be in your shoes. I would like to ask you some questions feel free to add anything to the conversation. You want to tell me.

What group of people do you spend most of your time interacting with? Do you feel comfortable interacting with American students? Do you spend time with American's outside of class? Is there anything American students could do to be more welcoming?

Do you feel that other students understand and respect your home country? If no can you tell me why? How does this make you feel?

Are you comfortable asking questions in class? If no what keeps you from asking questions? What sort of thing might help you to gain more confidence in interacting in class?

Do you have trouble understanding the professor? Do you have trouble taking notes in class?

Are you more comfortable writing in English than speaking in English?

I am going to ask you about a few concepts that I have based off of my previous survey for classroom interaction.

- AIM chat in classroom

Some other concepts for helping increase understanding between students from all over the world are.

- E-learning session to teach about the countries, maybe teaching other students a few words in a foreign language.
- Mentor mentee program. American students paired with internationals and internationals paired with Americans.

Accepted by the faculty of the School of Informatics, Indiana University, in partial fulfillment of the requirements for the degree Master of Science.

Master of Science Candidate: \_\_\_\_Jamie Allison McAtee\_\_\_\_

Capstone Instructor: \_\_\_\_\_Erik Stolterman\_\_\_\_\_

Advisor (s): \_\_\_\_\_Martin Siegel\_\_\_\_\_

**Final Project Approval**

Person \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Primary Advisor \_\_\_\_\_

Secondary Advisor \_\_\_\_\_

Capstone Instructor \_\_\_\_\_

Program Director \_\_\_\_\_

Graduate Records Administrator \_\_\_\_\_

Associate Dean \_\_\_\_\_

Month and Year \_\_May 2008\_\_