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The Effects of Coursecasting in International Freshman Students' Perceptions of Marginality and Isolation, Anxiety, and English Language Oral Proficiency and Comprehension

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The Effects of Coursecasting in International Freshman Students' Perceptions of
Marginality and Isolation, Anxiety, and English Language
Oral Proficiency and Comprehension

by

Alberto Fernández Fernández

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in
Computing Technology in Education

Graduate School of Computer and Information Sciences
Nova Southeastern University

2010

We hereby certify that this dissertation, submitted by Alberto Fernández Fernández, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirements for the degree of Doctor of Philosophy.

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2010

An Abstract of a Dissertation Submitted to Nova Southeastern University
in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

The Effects of Coursecasting in International Freshman Students' Perceptions of Marginality and Isolation, Anxiety, and English Language Oral Proficiency and Comprehension

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October 2010

The influx of international students attending American universities has put the U.S. at the forefront of international education, generating over $14.5 billion yearly.

International students often face adjustment issues impacting their level of satisfaction with their experience. These involve oral language proficiency, as well as feelings of anxiety and isolation resulting from language deficiencies, which increase their feelings of marginality. Engaged learning, which is dependent on comprehension, is affected by the anxiety students bring to class. It is believed that coursecasts may alleviate anxiety, thus improving student engagement in learning.

A pre-experimental research design investigates whether coursecasting mitigates feelings of marginalization and isolation, deficiencies in language comprehension and proficiency, and anxiety in international students. Research in the value of coursecasting has been anecdotal, and concrete evidence of its educational value is needed before its wide-spread adoption in educational settings (Elliot, King, & Scutter, 2009).

Participants completed the Cultural Adjustment Difficulties Checklist (CADC) by Sodowsky and Lai (1997), the Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz, Horwitz, and Cope (1986), the Self-Reported Fluency of English Scale (SRFES) by Yeh and Inose (2003), and the Test of English as a Foreign Language (TOEFL), Listening portion. A pretest-posttest approach was chosen to evaluate the influence of podcasting within a naturalistic setting.

The implications of the study were categorized into three areas. First, it provided insight into the barriers that negatively impact international student learning due to anxiety. Second, it identified methods of instruction, and issues that may have hindered international students from achieving at their highest level. Finally, it provided an opportunity to explore the educational effectiveness of a technology created for entertainment.

Quantitative measures yielded no significance, so the null hypotheses were rejected. It was thought that these results were due to limited exposure to the coursecasting treatment. Their significance was further discussed by providing conclusions and

implications. Recommendations for future research suggest replicating the study with a control group or administering the coursecasting treatment for a longer period of time. Suggestions for educators and educational institutions include requesting faculty and staff to identify specific ways to help this vulnerable population with their acculturation instead of waiting for them to ask for help.

Although no significant impact could be established between available coursecasts and international students' perceptions of marginality and isolation, anxiety, and English language proficiency and comprehension, the findings regarding the analysis of the dependent variables seem to present interesting implications for education.

Acknowledgments

Our knowledge is the amassed thought and experience of innumerable minds
- Ralph Waldo Emerson

As I finish this dissertation, I hope that it contributes to the advancement of our knowledge of computing technology in the educational arena, so that it can be better understood. However, as Emerson said, my small contribution could have never been possible without the experience, knowledge, and support of many individuals who helped me immensely throughout this long journey.

This dissertation would have never been possible without the guidance, insights, and direction of my dissertation chair, Dr. Timothy Ellis. I heartily thank you for working with me all the way through the completion of this research, for you useful comments, patience, and assessments at every stage of the process, as I wrote this dissertation. I am very grateful to Dr. Ellis for allowing me to present my arguments, and for his organized way of providing feedback, which exemplifies the high quality standards to which I aspire. I also want to express my gratitude to the members of my dissertation committee, Dr. Ling Wang and Dr. Marti M. Snyder, who generously gave me their time and expertise in revising my work. Both of them provided insights that improved the finished product.

I also want to express my appreciation to the different individuals that allowed me to work with them and their institutions to gather my data, even if in many of the cases I was not able to use that data. In particular, I want to show my appreciation to Mr. Jeff Henry, Director of the Media Center at the University of California – San Diego, who provided me access to the university podcasting usage data, and assisted me in contacting professors at his university that I used in my research. Without Mr. Henry's support, this dissertation could have not been completed. I also want to express my appreciation to Miami Dade College Library Director Estrella Iglesias for helping me to get in contact with several professors in the college, who allowed me to use their classes for this study.

The inspiration for doing this research came from the experiences I had, a long time ago, as an international student coming to finish my bachelor's degree in the United States. As such, my gratitude also goes to the international students that participated in this study. They generously shared with me with their experiences and insights, and their participation corroborates the need that I think existed for this type of study. Their comments and insights allowed me to complete a research that contains opportunities for future work.

Dedication

When you want something, all the universe conspires in helping you to achieve it.
- Paulo Coelho (1988, p. 41)

I want to dedicate this research to my parents, Alberto and Josefina, and my sister for their patience, tolerance, and support throughout this long journey. In particularly, I want to thank and express my love for my mother, for always pushing me to accomplish the most I can, and to my sister Susana, responsible for always encouraging me during the difficult and sometimes frustrating times of the project. As Paulo Coelho said, the universe conspires in helping you to achieve what you want, and you all are my universe!

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Chapter 1

Introduction

Background of the Problem

Universities have as their goal to further the educational goals of students, as well as to enhance their academic achievement through effective methods of instruction (Hanassab, 2006; Munroe & Pearson, 2006; Scutter, Stupans, Sawyer & King, 2010). Researchers further believe that these methods of instruction must promote and value diversity to ensure that institutions of higher education graduate culturally competent students who will be able to function effectively in multicultural environments (Carnevale, 1999; Hanassab, 2006; Lee & Rice, 2007; Mori, 2000; Sandhu, 1995; Smith & Schonfeld, 2000). Tonkin (2006) takes this need further when he explains that the urgency of internationalization is such that "in a very real sense, the physical and intellectual future of our planet is dependent upon our ability to find, and maintain, common ground" (p. 3), and Hanassab (2006) considers diversity an essential and coveted component of academic excellence. There is no doubt that international students help educational institutions to achieve this goal, which makes their presence important to American universities (Anderson, 2006; Hanassab, 2006; Kendagor, 2005; Lee & Rice, 2007; Munroe & Pearson, 2006; Zhao, Kuh, & Carini, 2005).

Traditionally, U.S. institutions of higher education have enjoyed a powerful reputation that attracts thousands of international students, who, in turn, increase the

diversity found in campuses across America. Hosting campuses see inter-cultural exchange as a way to promote global understanding, tolerance, and interdependence. These campuses also consider these exchanges key to shaping the diplomacy ideals and political approaches of future world leaders. Researchers such as Lee and Rice (2007), Johnson (2006), Jaschik (2005), and Johnson (2003), among others, have thoroughly discussed how international students have been, and continue to be, great diplomatic assets and good-will disseminators.

Due to steady American support of international education since after World War II (Johnson, 2003), the value of international students has also continued to increase in American campuses. Keller (2001, 2004), for example, believes that the United States is now more diverse than ever before, and thus encourages universities to reflect that same diversity in their campuses. Government officials, such as Dina Habib Powell, former Assistant Secretary of State for Educational and Cultural Affairs during the Bush administration and current Global Head of Corporate Engagement at Goldman Sachs, have been quoted to say that American universities continue to offer the best higher education programs for those wanting to pursue a university degree (IIE's Open Doors Report, 2005; Kendagor, 2005). Stuart Anderson (2006), who serves as Executive Director of the National Foundation for American Policy, and has worked as Executive Associate Commissioner for Policy and Planning at the Immigration and Naturalization Service, emphasizes the importance of welcoming international students to American universities, but warns readers when he says that American universities are no longer the unique option for students. An intense global competition on the part of universities in

other parts of the world has widened the options for quality education at the undergraduate and graduate levels, posing a very real threat to American supremacy in this field.

In recent years, for example, the impact of the Patriot Act as well as fewer academic incentives and more academic options in countries such as Canada and Australia have decreased the number of international students applying to US colleges and universities (IIE's Open Doors Report, 2005; NAFSA's Restoring U.S. Competitiveness for International Students and Scholars report, 2006). According to the State Department, F-1 visa issuance to international students declined by 24% from 2001 to 2004 (Anderson, 2006), and although initial regulations and restrictions imposed by the government after 9/11 hurt study visas, much effort has been devoted to eliminate the initial restrictions after international enrollment plummeted. Nevertheless, the downward trend has continued, and the 2005-2006 period witnessed a loss of approximately 22,000 students with respect to the period before (Anderson, 2006; Schachter, 2007). According to the IIE's Open Doors Report (2007), the 2006-2007 period has seen a slight increase of 3%, which is still below the data for six years ago (see Figure 1).
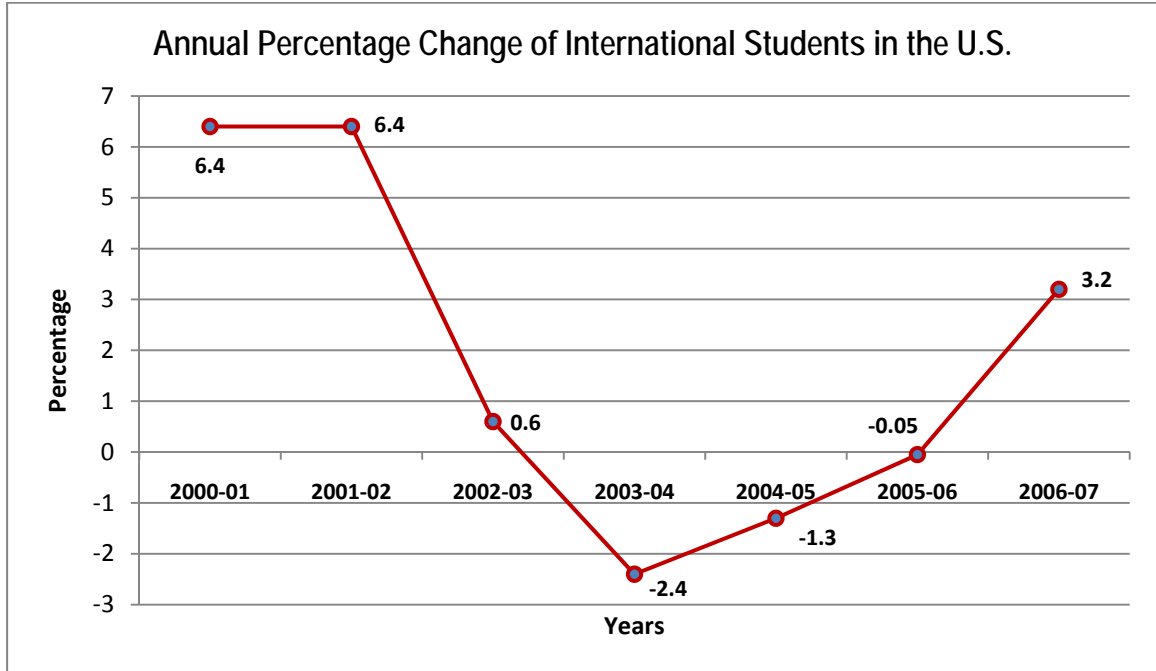
Figure 1. International student enrollment trends and annual percentage change based on data found on IIE's Open Doors Report (2007).

Clearly, welcoming—and retaining—international students is important to the United States and to the country's economic health as was expressed by business tycoons Bill Gates of Microsoft and Jeff Immelt of General Electric (Anderson, 2006). The United States government has also shown its commitment to attracting more international students as evidenced by government-sponsored recruiting trips and active efforts to ease visa procedures (Jaschik, 2005; Johnson, M. M., 2006; Johnson, V., 2003). NAFSA, the Association of International Educators (2006) indicates that international students, for example, contribute over $14.5 billion to the American economy, which, according to the Department of Commerce, makes international education the nation's fifth largest service sector export (IIE's Open Doors Report, 2007; Lee & Rice, 2007).

In addition to their economic and political importance, the contributions of

international students also become particularly relevant in potentially sensitive scientific

areas that deal with American national security, as well as in the fields of science and

engineering, where the majority of program applicants tend to be international students

(Anderson, 2006; Lee & Rice, 2007). Kendagor (2005) agrees that globalization,

together with an increased foreign trade and foreign investment, are also reasons that

encourage foreign students to study in America, but notes that ignorance of their needs on

the part of administrators and professors is one of the main reasons that discourage them.

Largely, the literature seems to indicate that international students represent a significant

population (see Figure 2) with global and historical importance, whose psychological

needs are unique and deserve attention. In fact, these needs are key factors affecting their

integration and retention (Kendagor, 2005; Poyrazli & Grahame, 2007; Zhao, 2006).
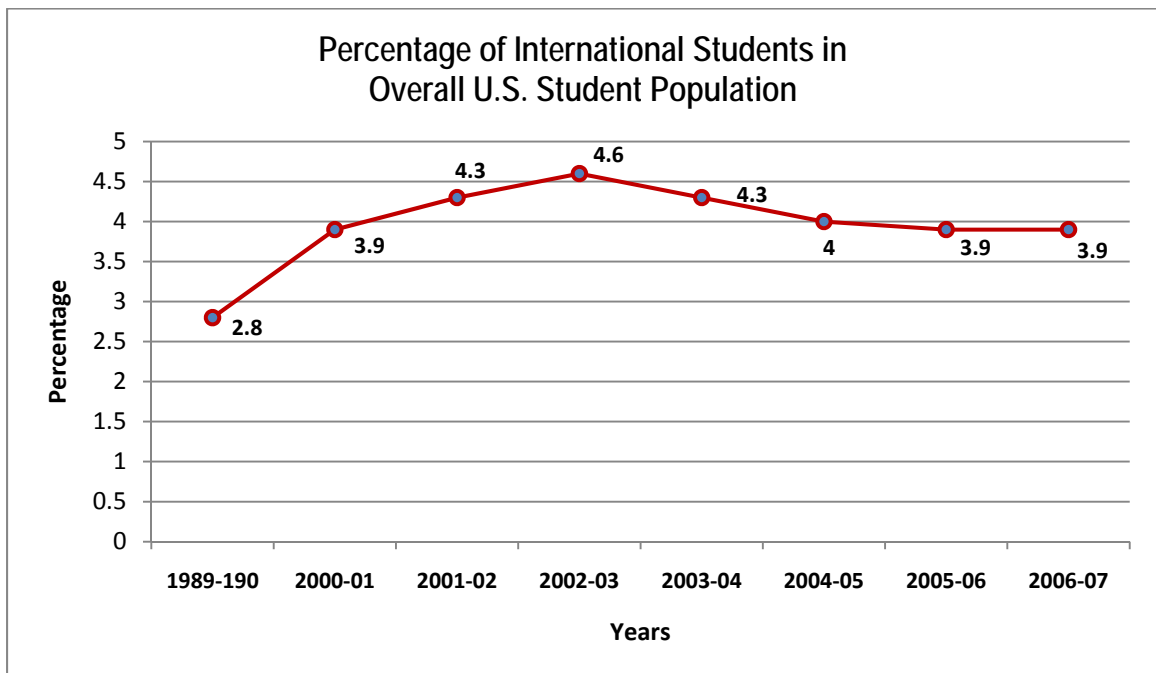
Figure 2. Percentage of international students attending U.S. institutions of higher
education based on data found on IIE's Open Doors Report (2007).

Integration is a factor that influences international students' satisfaction with the American educational experience. Since satisfaction typically helps to retain these students, their retention contributes to the experience of American students as well. More specifically, the need to retain and integrate international students in American higher education has as one of its main objectives to enrich the overall life of the college, by helping American and international students to learn how to live and work effectively with people from different cultural backgrounds (Gurin, 1999; Poyrazli & Grahame, 2007; Smith & Schonfeld, 2000). Thus, in addition to their economic and political importance, international students also contribute culturally, and positively influence the American educational system. It is mentioned often, throughout the literature, that international students, for example, constantly challenge institutions of higher education to fulfill their educational promise of helping them to achieve the academic goals that brought them to the U.S. in the first place. For all of these reasons, the retention of these students is essential to keep the US at the forefront of international education. (Ladd & Ruby, 1999; NAFSA's Restoring U.S. Competitiveness for International Students and Scholars report, 2006; Okeagu, 1997; Poyrazli & Grahame, 2007; Ward, 2001; Yildiz & Bichelmeyer, 2003).

Issues Affecting International Student Retention

International students often face adjustment issues that affect their academic performance, and therefore, their level of satisfaction with their overall university experience. When this happens, university retention rates for international students

suffer. Often, these adjustment issues have to do with language comprehension, particularly during class, as well as with the feelings of anxiety and isolation they develop as a result of their language deficiencies (Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares, & Herron, 2006; Poyrazli & Grahame, 2007; Sümer, Senel, & Grahame, 2008; Swanson, 2006; Van Nelson, et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006).

In a preliminary review of the literature, Zhao (2006), for example, suggests that experiencing difficulties with language comprehension affects international students because the misunderstandings and misinterpretations that inevitably arise can leave them with negative feelings and experiences in their efforts to fit in or contribute to class discussions in meaningful ways. Badur (2003), Kwon (2009), and Yeh (2003) suggest that when individuals go through a transcultural experience of adjustment to a new culture, they go through a phase described as marginality, which is defined as a feeling of inadequacy to communicate successfully due to language comprehension deficiencies. Lee and Rice (2007), Sümer et al. (2008), Yeh (2003), and Yildiz and Belchemeyer (2003) also note that international students suffer from high anxiety levels caused by their fear of not understanding and not being understood in their oral communications; other research suggests that when content comprehension is impaired due to language deficiencies, academic performance seems to suffer too (Bruen 2002; Dozier, 2001; Feizi, 1990; Mills et al., 2006; Sümer et al. (2008), Swanson, 2006). For example, Zhao (2006)

notes that a lack of English comprehension skills makes it difficult for international students to understand class lectures, thus impacting their grades and the level of participation that they will have in the class. Sümer et al. (2008) add that their self-rated English language proficiency also influences their ratings of anxiety. Consequently, and since international students often associate educational success with status, not being able to participate in class as much as their American classmates causes them additional stress.

Generally, cultural adjustment involves two aspects: intercultural competence, which addresses the way in which a person relates ethnically to another, and acculturative distress, which addresses stress caused by the issues affecting a cultural transition. Language proficiency (oral and written), therefore, reduces cultural conflicts and serves as a significant factor in the adjustment process (Dao, Lee & Chang, 2007; Kwon, 2009; Sümer et al., 2008; Yeh, 2003).

Need for the Study

Despite the fact that language proficiency seems to be considered a significant factor in the reduction of cultural conflict, as well as in the adjustment process of international students (Dao et al., 2007; Kwon, 2009; Sümer et al., 2008; Yeh, 2003), academic institutions do not seem to purposefully address these issues effectively. Lee and Rice (2007), for example, report that language difficulties and feelings of marginality are the highest ranked stressors by international students. As a result, the authors suggest that institutions need to conduct further research in the area of marginalization, since few studies explore how universities could be responsible for perpetuating or diminishing

these feelings in the students. Similarly, Kwon's (2009) study urges educational administrators, international legislators, and professors to not only understand international students, but to help them make a better transition into higher education.

As shown by the literature, if their adjustment suffers, American universities will also fail to retain them. Both, Lee and Rice (2007) and Poyrazli and Grahame (2007), identified that when students perceive that they are culturally discriminated and marginalized their retention is impacted because the stress that these feelings cause them prevents them from adjusting to the new culture. When not being able to adapt, their academic progress is also affected (Lee & Rice, 2007). Dao et al. (2007), Badur (2003), Kwon (2009), and Sümer et al. (2008) believe that the feelings of marginality found in international students can be attributed to the students' lack of communication skills, which causes them a level of anxiety that prevents them from adapting and succeeding socially and academically.

It seems critical, then, for authors such as Cigularova (2004-2005), Athos (2005), and Kwon (2009) to suggest that if the United States wants to continue retaining international students and improving their success (in fulfillment of their academic contract), it is crucial for institutions to recognize and understand the factors that increase these students' satisfaction and adjustment within their academic programs. Lee and Rice (2007), and Hanassab (2006) also suggest that to truly internationalize a campus, research that focuses on the actual experiences of international students is sorely needed. Similarly, Sümer et al. (2008) suggest that more studies should explore the relationship between international students' anxiety and their academic success. Such research efforts

would prevent institutions from seeing these students as economic units only, and would encourage them, instead, to see the students as valuable learners. Furthermore, the authors also call attention to the fact that most institutions usually bestow the responsibility of adjusting and adapting on the foreign student, which shows a lack of understanding of international student needs that can—and should—be remediated through formal research.

Theoretical Background

Situated Learning

According to Kwon (2009) and Zhao, Kuh, and Carini (2005), effective educational practices that engage international students must include those that create learning environments that are supportive of their academic needs. This perspective seems to reflect a Situated Learning framework espoused by Lave and Wenger (1991), where social engagement is believed to provide the ideal context for learning to occur. According to this theory, a student would acquire a skill that, simultaneously, would allow him or her to perform by means of engaging him or her in the process through what these theorists call Legitimate Peripheral Participation (LLP) (Lave & Wenger, 1991). In Situated Learning, newcomers take part in activities that help them to become part of a community of practice by building on their experience with the activity. These activities, which Lave and Wenger (1991) call "peripheral", involve vocabulary and tasks that give meaning and organize the community and its practices. Furthermore, situated knowledge is "situated" because the knowledge is not practiced necessarily how it appears in books,

but how it exists in the community's authentic reality (i.e. class participation and oral comprehension of material).

In describing Situated Learning, Brown, Collins, and Duguid (1989) explain that when students use cognitive tools in their authentic domain activity, their learning is advanced through collaborative social interaction. Ward (2001), for example, indicates that the presence of international students influences not only the content, but also the process, of education by challenging educators to respond to students' needs and learning styles through a variety of instructional methods that ensure their engagement, which points to the fluid nature of Situated Learning.

Auditory Learning

Ward (2001) and Ladd and Ruby (1999) note that educators should be aware and respond to student learning styles in order to ensure their engagement. Not only would this encourage educators to put more effort in preparing their lessons, but this behavior ultimately would benefit all students. In examining some of these needs and preferences, the authors cite research indicating that international students tested for learning style preferences showed a marked preference for aural or auditory learning.

Cebeci and Tekdal (2006) also point out how listening has been the primary method for learning that human beings have used for centuries, so it is not surprising to hear that Boulos, Maramba, and Wheeler (2006) note that auditory learning is preferred by at least 30% of all learners. Similarly, Nash (2006) and Chan and Lee (2005), remind readers that although an emphasis on oral modes has been somewhat neglected, "listening is instinctual" and spoken language has a way of creating emotions and a sense of

intimacy that may reduce anxiety and isolation. As Lave and Wenger's (1991) Situated

Learning theory suggests, language—and in particular speech—is a "means of *acting* in

the world" (p. 22) because of its participatory nature and its different levels of mastery

through growing involvement.

Unfortunately, oral communication is precisely the main cause of stress and

anxiety for international students (Kwon, 2009; Sümer et al., 2008). Aspects such as

accent differences, enunciation, slang, idiomatic expressions, and academic or subject-

specific words have been widely identified as roadblocks to their adjustment (Yeh, 2003;

Zhai, 2002). Ladd and Ruby (1999) cite that regardless of their learning preference,

international students' academic achievement suffers when the main mode of instruction

is auditory, mostly because these students often have serious problems understanding

lectures. Along the same lines, the studies of Kwon (2009) and Sümer et al. (2008), as

well as Zhai (2002), concluded that international students found studying in the United

States very stressful due to, among other factors, the fast-paced lectures, the need for

extensive oral participation, and the number of required presentations and speeches.

Technology-enhanced Instruction

The benefits associated with the general use of technology in the classroom have

been extensively documented, and include "increased motivation, improvement in self-

concept and mastery of basic skills, more student-centered learning and engagement in

the learning process, and more active processing, resulting in higher-order thinking skills

and better recall" (Stepp-Greany, 2002, p. 165). Overall, new models of teaching that

incorporate technology have encouraged students to display higher productivity and

motivation levels, as well as to increase their interest and engagement in the subject matter (Boulos, Maramba, & Wheeler, 2006; Morales & Moses, 2006). Furthermore, it has been demonstrated that international students benefit from technology-enhanced instruction because of its individualized nature, offer of additional time to reflect, and immediate feedback, all of which motivate them to stay engaged in the process (Abdus, Camarena, & Facer, 2009; Athos, 2005; Badur, 2003; Brewer, 2005; Carvalho et al., 2008; Elliot et al., 2009; Glogoff, 2009; Ormond, 2009; Read, 2005; Robbins, N., Lo, Y., Hou, F., Chou, T., Chen, C., Chen, C., Chen, W., Chen, Y., Wang, S., Huang, S., & Lii, J., 2001-2002; Scutter et al., 2010; Walls, Kucsera, Walker, Acee, McVaugh, & Robinson, 2009; Yildiz & Bichelmeyer, 2003).

Although the documented benefits associated with the general use of technology in the classroom are gaining acceptance by many educators, it is still believed to be the university's responsibility to outline the overall direction of its instructional perspective—especially when it comes to technology implementation—in order to link it to the educational mission of the institution. As Keller (2004) mentioned in his book, *Transforming a College*, educational practices must be restructured to "capture the benefits of the communications revolution" (p. 66). More than an option, however, the implementation of these technology initiatives intended to enhance instruction has become an expectation for educators (Al-Jarf, 2004; Altun & Cakan, 2006). As a result, many educators are "encouraged" by their universities to implement technology for technology's sake without being clear on its effects on actual learning outcomes. The Society for College and University Planning (2005) notes that higher education

institutions had been pushing—and continue to push—the implementation of technology initiatives such as course management systems, wireless networks and the use of different electronic devices by the campus community.

This trend to employ technology devices, such as MP3 players (i.e. Apple's iPod) on educational environments has become the target of educational technology watchers, many of whom are not convinced of their effectiveness and suggest further research before endorsing its use academically (Elliot et al., 2009; Hirschland, 2005; Kadel, 2006; Kurtzman, 2006; Maurer, 2006; Read, 2005; Studinski, 2006; Swanson, 2006). Their distrust may be sparked by the fact that some of these technologies, such as MP3 players, were originally designed for entertainment purposes, thus, their use in academia is seen as suspicious. Nevertheless, some colleges and universities have taken advantage of MP3 players' podcasting capabilities to publish content and add breadth to academic subjects, and consequently, faculty members have begun to experiment with this new method of instruction.

Podcasting

The term podcasting describes the process by which audio or video files can be distributed through the Internet to different devices (i.e. MP3 players, computers, laptops, etc.) (Stone, 2006). The main difference between podcasting and other means of obtaining audio recordings resides precisely on the fact that it is "on demand" due to syndication, a process which allows users to subscribe and receive podcasts automatically through really simple syndication (RSS) technology (Frydenberg, 2008). The first podcasting software was created towards the end of 2004 by Adam Curry using RSS

technology. RSS was originally created to update Blog postings, news headlines and other Internet content by demand on computers. Curry created an RSS feed that allowed the transfer of audio files to his MP3 player. He later made his program available through the Internet, and this allowed other programmers to improve on it and create newer and better versions (Crofts, Dilley, Fox, Retsema & Williams, 2005). When universities started to experiment with podcasting, and especially with the use of these portable devices in the classroom to make lectures available for download, the term coursecasting emerged (Stone, 2006).

Walls et al. (2009) make a distinction between two forms of podcasting based on how most educators have been using them. One popular way in which educators have used podcasting is for recording lectures, which the authors define as repetitive, and another way is to provide additional materials and external resources, which they define as supplemental. The authors' study also reported that students who were exposed to the repetitive format reported more benefits than those in a supplemental format. Coursecasting would certainly fall within what Walls et al. (2009) define as repetitive podcasts.

Although other traditional methods for audio recording lectures and course content exist, the increasing popularity of coursecasting seems to reside in its synchronization, which, through RSS technology, allows for the automatic download of material as soon as it becomes available. This process of time-shifting allows for flexible and convenient viewing, especially when geographical boundaries exist, as is the case in distance learning. In fact, the convenience of subscribing to a podcast feed delivered or

broadcast to a MP3 player, a cell phone or other portable player clearly has made podcasting attractive to many students, since students can listen to the recordings "on the go" (Chan & Lee, 2005; Frydenberg, 2008).

It is interesting to point out that when podcasting is specifically done in an academic course setting, it is usually referred to as coursecasting. Throughout this study, the two terms will be used; when discussing the technology generally, podcasting will be used, and when using within the context of academia, coursecasting will be used.

Although few universities have begun to offer coursecasting options, the few that offer this option seem to rely on anecdotal evidence to support the decision to implement the use of this technology (Elliot et al., 2009). Data showing that some 22 million American adults own these devices and use them regularly, or that more than 80% of university students own a portable digital audio player, seem to offer additional support for the value of coursecasting (Lum, 2006).

An evaluative report published by Duke University in June 2005—after a year-long effort to provide MP3 players (i.e. iPods) to its entering freshman class—assessed the academic use of these devices in its different modalities. Some of the benefits identified by the study included the convenience and the flexibility to move and use content, eliminating or drastically reducing the need for other traditional materials (i.e. books); the commitment, dedication, and interest generally demonstrated by students with regard to the different activities where iPods were used; and an increased encouragement on the part of students, who saw this initiative as a way of adding new ways of teaching and incorporating different learning styles or needs. Duke evaluators, however,

suggested further research to determine if students' academic performance was positively impacted, and whether the use of podcasts enhanced the overall course experiences of students and professors. Furthermore, they also suggested the need for further investigation on the effect that this technology could have on other aspects of the student's experience, such as class attendance (Belanger, 2005; Carvalho et al., 2008; Fietze, 2009; Scutter et al., 2010).

Overall, proponents of this new technology suggest that the ease and availability, as well as the possibility for educators to bring greater depth to discussions or avoid spending time in class recapping content, make coursecasting very exciting (Abdous, Camarena, & Facer, 2009; Carvalho, Aguiar, Carvalho, & Cabecinhas, 2008; Elliot, 2009; Fietze, 2009; Glogoff, 2009; Ormond, 2008; Scutter, Stupans, Sawyer & King, 2010; Stone, 2006; Walls et al., 2009). EDUCAUSE, for example, in its Horizon Report (2006), identified MP3 players as a key emerging technology with a strong likelihood of impacting teaching, learning, or creative expression at the university level. More specifically, EDUCAUSE predicts that a large number of educational institutions are likely to adopt the technology within a year; a trend they suspect will continue increasing at a steady rate in the upcoming years. Nevertheless, critics warn that this technology is a tool, not an end, and thus, believe that educators must have the necessary technical knowledge and skills to use the medium effectively, or otherwise, adoption will suffer (Elliot et al., 2009; Stone, 2006).

Purpose of the Study

Given the importance of international students to American universities, and taking into consideration that their biggest challenge comes from their language comprehension deficiencies during lectures, their feelings of marginalization and isolation, and their high anxiety levels, it seemed worthy to formally explore if making podcasts of courses readily available for download (coursecasting) could positively impact international students' cultural adjustment, which, if ignored, often negatively impacts their academic performance and overall satisfaction with the course experience. The possible relationship between coursecasting and student engagement has been hinted by Carvalho et al. (2008), Fietze (2009), IDG Global Solutions Report (2006), Kaplan-Leiserson (2005), Littlefield (2006), Manning (2005), Meng (2005), Morales and Moses (2006), Nash (2006), Ractham and Zhang (2006), Reynolds (2005), and Scutter et al. (2010). Furthermore, due to the increased attention that podcasting technology is garnering in higher education, and following the recommendations outlined in Duke University's preliminary study, as well as in the studies of Abdous et al. (2009), this research proposed to investigate the suspected educational effectiveness of podcasting as a tool to mitigate feelings of marginalization and isolation, deficiencies in language comprehension and proficiency, and overall anxiety towards the program through a pre-experimental, one-group, pretest-posttest design. The study's design explored the actual experiences of international undergraduate students in a naturalistic setting, which has been suggested as most effective by Lee and Rice (2007), Hanassab (2006), Athos (2005), Cigularova (2004-2005), Kaveh (1990), and Kwon (2009).

The literature hinted that having the ability to download and listen to a course lecture as many times as one wishes would improve international students' oral comprehension during lectures, thus improving their oral language proficiency and overall content comprehension, all of which could lead to reduced or eliminated levels of anxiety and feelings of marginalization and isolation usually associated with decreased satisfaction, low academic performance, and poor retention. Consequently, this pre-experimental research explored whether coursecasting could help international students to adjust better to the American college system by improving their language comprehension and oral proficiency, and by reducing their overall feelings of isolation and marginalization, as well as their anxiety towards the course (Abdous et al., 2009; Elliot et al., 2009; Fietze, 2009; Glogoff, 2009; IDG Global Solutions Report, 2006; Kaplan-Leiserson, 2005; Kwon, 2009; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Nash, 2006; Ormond, 2008; Ractham & Zhang, 2006; Reynolds, 2005; Scutter et al., 2010; Sümer et al., 2008; Walls et al., 2009). An additional purpose of the study was to start developing a body of literature to document modalities of use in a natural setting as suggested by Al-Jarf, 2004; Altun and Cakan, 2006; Belanger, 2005; Hirschland, 2005; Kadel, 2006; Kurtzman, 2006; Kwon, 2009; Maurer, 2006; Read, 2005; Studinski, 2006; Swanson, 2006; and Yildiz and Bichelmeyer, 2003.

Theoretical Framework

This study attempted to look at the effectiveness of podcast technology on language proficiency and oral comprehension, marginality and isolation, and anxiety from a Situated Learning perspective (Lave & Wenger, 1991). In order to do so, the pedagogical uses of podcast technology were explored, and language proficiency and oral comprehension, marginality and isolation, and anxiety were defined within the context of international student adjustment and their overall satisfaction. Due to the importance of international student presence in American institutions of higher education, research focusing on the retention of these students was added to the theoretical framework by identifying, and exploring how to address, the unique issues that negatively impact their stay (Anderson, 2006; Athos, 2005; Cigularova, 2004-2005; Gurin, 1999; Hanassab, 2006; Kendagor, 2005; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Munroe & Pearson, 2006; NAFSA's Restoring U.S. Competitiveness for International Students and Scholars report, 2006; Poyrazli & Grahame, 2007; Okeagu, 1997; Smith & Schonfeld, 2000; Sümer et al., 2008; Ward, 2001; Yildiz & Bichelmeyer, 2003; Zhao, 2006; Zhao, Kuh, & Carini, 2005).

Research Questions and Hypotheses

The main goal of this research study is to examine whether the availability of downloadable coursecasts influences international students' educational experiences. More specifically, the research questions that guided this research effort were as follows:

1. What impact does the use of downloadable coursecasts have on international students' oral language proficiency and overall English comprehension as measured by the SRFES?

2. What impact does the use of downloadable coursecasts have on international students' feelings of anxiety as measured by the FLCAS and CADC?

3. What impact does the use to downloadable coursecasts have on international students' feelings of marginality and isolation as measured by the CADC?

In the process of answering these questions, the study also observed whether the use of coursecasts was correlated to satisfaction of international students. The proposed research not only contributed to the literature by exploring more efficient ways of teaching with technology, but it also provided practitioners with specific uses for podcasting that would positively benefit all kinds of students.

The following hypotheses emerged as a result from research question one:

$H1_0$: There is no significant change in international students' oral language proficiency and overall English comprehension as measured by the SRFES when they use downloadable coursecasts.

$H1_1$: There is a significant change in international students' oral language proficiency and overall English comprehension as measured by the SRFES when they use downloadable coursecasts.

The following hypotheses emerged as a result from research question two:

$H2_0$: There is no significant change in international students' feelings of anxiety as measured by the FLCAS and the CADC when they use downloadable coursecasts.

$H2_1$: There is significant change in international students' feelings of anxiety as measured by the FLCAS and the CADC when they use downloadable coursecasts.

The following hypotheses emerged as a result from research question three:

$H3_0$: There is no significant change in international students' feelings of marginality and isolation as measured by the CADC when they use downloadable coursecasts.

$H3_1$: There is a significant change in international students' feelings of marginality and isolation as measured by the CADC when they use downloadable coursecasts.

Significance of the Study

As it was explained, the presence of international students in American universities is essential to keep America at the forefront of international education. The richness that these students add to the classroom, and their economic, political, and cultural contributions, make the unique issues impacting their retention worth investigating (Anderson, 2006; Athos, 2005; Cigularova, 2004-2005; Gurin, 1999; Hanassab, 2006; Kendagor, 2005; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Munroe & Pearson, 2006; NAFSA's Restoring U.S. Competitiveness for International Students and Scholars report, 2006; Poyrazli & Grahame, 2007; Okeagu, 1997; Smith & Schonfeld, 2000; Ward, 2001; Yildiz & Bichelmeyer, 2003; Zhao, 2006; Zhao, Kuh, & Carini, 2005). A review of the literature revealed that language comprehension is one of the most prevalent adjustment issues affecting their classroom experience, and thus, their

academic performance and retention at the institution. More specifically, lack of

language proficiency—particularly in their classroom interactions—causes them stress

and anxiety, and increases their feelings of marginality and isolation from the group

(Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001;

Elliot et al., 2009; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby,

1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares, & Herron, 2006; Poyrazli &

Grahame, 2007; Swanson, 2006; Sümer et al., 2008; Van Nelson, et al., 2004; Woodrow,

2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006).

Reports by Carvalho et al. (2008), Fietza (2009), IDG Global Solutions (2006),

Littlefield (2006), Morales and Moses (2006), Ractham and Zhang (2006), Kaplan-

Leiserson (2005), Manning (2005), Meng (2005), Reynolds (2005), and Scutter (2010)

discuss how one of the ways by which the use of MP3 technology may improve

international student engagement is by helping these students with their oral language

proficiency and comprehension. Consequently, these observers suggested the need to

explore whether the availability of downloadable podcasts could positively affect

classroom experiences for international students. Considering that the biggest challenge

faced by international students when adapting to American classrooms are their language

comprehension deficiencies during lectures, a study that proposed to research the issue

formally seemed to be both relevant and significant in light of the existing literature,

especially because it contributed to develop a body of knowledge to document modalities

of use, effects on academic outcomes, and overall course experience (Al-Jarf, 2004;

Altun & Cakan, 2006; Belanger, 2005; Carvalho et al., 2008; Fietze, 2009; Hirschland,

2005; Kadel, 2006; Kurtzman, 2006; Kwon, 2009; Maurer, 2006; Nash, 2006; Read, 2005; Scutter et al., 2010; Stone, 2006; Studinski, 2006; Swanson, 2006; Sümer et al., 2008; Yildiz & Bichelmeyer, 2003). Furthermore, formal research on a practice that otherwise had been supported by sporadic observation and anecdotal evidence satisfied those technology watchers who needed more concrete evidence of its educational value before accepting or endorsing its adoption (Fietze, 2009; Hirschland, 2005; Kadel, 2006; Kurtzman, 2006; Maurer, 2006; Read, 2005; Studinski, 2006; Swanson, 2006).

Consequently, this study was important in three significant ways. First, and as suggested by the literature, it was important for academic institutions to identify and research the issues that could potentially hinder international students from achieving at their highest level, and studies that would focus on the actual experiences of these students were sorely needed (Athos, 2005; Cigularova, 2004-2005; Kaveh, 1990; Kwon, 2009; Rice, 2007). More specifically, research that focused on effective methods of instruction that could further the educational goals of international students, while enhancing their language comprehension and academic performance, was needed in the field of higher education (Al-Jarf, 2004; Altun & Cakan, 2006; Athos, 2005; Belanger, 2005; Chang & Lee, 2005; Kwon, 2009; Yildiz & Bichelmeyer, 2003; Zhao, et al., 2005).

A second unique aspect of this study rested in its approach to identifying and addressing the possible barriers caused by anxiety, which affect, and negatively impact, meaningful learning in international students (Chang & Lee, 2005; Sümer et al., 2008). According to Abdous et al. (2009), Elliot et al. (2009), Glogoff (2009), Lee and Chang (2005), Ormond (2008), scutter et al. (2010), Walls et al. (2009), the use of certain types

of technology may play a role in helping alleviate anxiety, thus improving the level of engagement of these students in meaningful learning. Technology's individualized nature, the opportunity its use offers for reflection, and the motivation it gives these students to continue their engagement have been cited and documented (Athos, 2005; Badur, 2003; Boulos et al., 2006; Brewer, 2005; Morales & Moses, 2006; Read, 2005; Robbins et al., 2001-2002; Stepp-Greany, 2002; Yildiz & Bichelmeyer, 2003; Zhao et al., 2005). Since engaged learning also has been found to be highly dependent on comprehension, which, according to Lee and Chang (2005), is very much impacted by the anxiety that students may bring to class, a study that explored technology as a tool to diminish anxiety in international students seemed to be momentous. Furthermore, the results of Carvalho et al. (2008), Lee's and Chang's study (2005) and, especially, the encouraging findings of Fietze (2009), Nash (2006), and Scutter et al. (2010), begged further research on the use of podcasting in education, and especially in the case of Nash (2006), further research on how podcasts could be used to combat stressful situations or how they could help students develop strong self-efficacy to achieve their learning goals (Nash, 2006).

Finally, the opportunity to explore the educational effectiveness of a technology that was primarily created for entertainment was also significant, mostly because its adaptation to educational use seemed to be imminent (EDUCAUSE's The Horizon Report, 2006; Society for College and University Planning report, 2005). Given the ease with which podcasts or coursecasts can be created and distributed, as well as the flexibility they offer users to download material at any time convenient to them, seemed

to make these players a technology that resonated with students' lifestyles and the way in which they seek to learn (Rainie & Madden, 2005; Stone, 2006). As suggested by the literature, ease of use was likely to improve international students' engagement, satisfaction with the educational experience and thus, influence their retention (Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Ractham & Zhang, 2006; Reynolds, 2005).

Assumptions

The present study relied on five major assumptions, which are important to acknowledge because they shaped the interpretation of the study's results. Furthermore, the acknowledgement of the assumptions allowed for further exploration of possible implications.

It was assumed that a lack of oral language proficiency and comprehension deficiencies constituted the principal sources of anxiety for all international students in a class setting, especially at the freshman level. As such, this anxiety was assumed to result in increased feelings of marginalization and isolation, which could affect the student's overall satisfaction and their retention by the university. This connection was hinted in the research of IDG Global Solutions Report (2006), as well as in the research of Kaplan-Leiserson (2005), Kwon (2009), Littlefield (2006), Manning (2005), Meng (2005), Morales and Moses (2006), Nash (2006), Ractham and Zhang (2006), and Reynolds (2005), Sümer et al. (2008).

A second assumption was that international students would want to participate in the study to reap the possible benefits associated with the thought of increased oral language proficiency and comprehension.

Third, it was assumed that international freshmen—regardless of origin—would have a basic understanding of Web and e-mail technology in order to complete the necessary assessments, as well as to download the podcasts, after a brief tutorial.

A fourth assumption was that the majority of international freshmen attending college in the United States for the first time would experience, at least, some language barriers, regardless of their origin, cultural background, and native language.

Fifth, it was assumed that the freshmen students volunteering for the study would constitute a representative sample of all entering international freshmen attending colleges and universities in the United States.

Limitations

The present study was constrained by seven important limitations that were beyond the control of the researcher. First, although the number of professors to be contacted could be, indeed, controlled, the number of professors willing to, or capable of, participating could not be controlled due to unforeseen circumstances. Many professors using podcast technology in their courses, for example, never taught freshman classes, or were not assigned to teach them on the semester in which the data was collected. Some possibly had to ask permission of their department heads to participate in this study, which may have resulted in a negative, regardless of their desire to participate.

A second limitation came from the coursecasts themselves, since there were differences with regards to authors, subject areas, and actual colleges. As a result, the personality of the professor or the nature and difficulty of the class could have affected the level of usefulness or interest that a student may have had in the podcast, thus influencing the results of the study. It was also possible that the novelty of use could impact the frequency of use and evaluation of merit of this technology on the part of the students (Campbell, 2005; Lum, 2006; Stone, 2006).

A third limitation was posed by the group of international students, since they hailed from a variety of backgrounds. As a result, it was thought that many of them could be unfamiliar with MP3s or with how to download materials, thus adding the need for additional training before the study begins (Badur, 2003; Frydenberg, 2008; Hanassad, 2006; Kim, 2004; Stepp-Greany, 2002). Since this issue was explored with an initial survey of technology use, which was administered to all participants at the beginning of the study, and followed by a brief tutorial, this limitation was unfounded.

A fourth limitation had to do with the first languages of participating students, since it was thought that it could affect the level of difficulty that these students had with English language oral fluency. According to the literature, certain students could experience more or less anxiety, feel more or less marginalized, and have more or less difficulty understanding oral English depending on their ethnic and cultural origin (Badur, 2003; Hanassab, 2006; Lee & Rice, 2007). Furthermore, these students were assumed to have different fluency levels to begin with, and this diversity needed to be factored in the analysis of data because it was impossible to control. Possibly, the best

way to deal with diversity issues was to be observant of any patterns that emerged with respect to country of origin or native language.

The fifth limitation had to do with the students' willingness to participate in the study. It was assumed that they would want to participate to reap the possible benefits associated with the thought of increased oral language proficiency and comprehension. Nevertheless, this may have not been the case for every student, which made it a possible limitation. In fact, certain students could have been more intimidated by the use of the technology than by the feelings of anxiety or perception of marginality and isolation they may have had. Additionally, some students started the study due to the perceived benefits, but stopped downloading podcasts without formally withdrawing from the study, which yielded results not truly representative of the population.

The sixth limitation came as a consequence of the fifth one, since at the end, participants came primarily from one university (University of California San Diego), except for three participants from Miami-Dade College. Although participants are still representative of the international student population in the United States, having such a small population come from just one institution was deemed to be somewhat of a limitation to the study.

Finally, the seventh limitation had to do with access to students' entrance TOEFL scores. Initially, it was planned to further answer the first research question by measuring oral language proficiency not only with the SRFES, but also with the TOEFL. It was thought that entrance TOEFL scores could be obtained easily with students' consents from their institutions or through self-disclosure in the pre-questionnaire. For the post-

test, an online practice TOEFL test would be used. Unfortunately, there was a lot of

difficulty in obtaining the entrance TOEFL scores because in many instances, these

scores were not required for admittance. Therefore, the lack of data for a significant

number of students prevented the use of the TOEFL as a measure of oral language

proficiency in the study.

Delimitations

Delimitations impact the generalizability of the results of the study. Therefore,

there was only one delimitation that was imposed in this research study, which is the

selection of freshman students in undergraduate courses. The decision to limit the study

participants to freshman undergraduates was made because their English language skills

were assumed to be less affected by acculturation at that level. Also, international

freshman students tend to have higher anxiety levels due to their unfamiliarity with their

new environment, thus it was assumed that they would also have a higher potential for

developing feelings of marginalization and isolation.

Barriers and Issues

Designing and conducting a structured study that could add meaningfully to a

less-than-formal body of literature was difficult to organize and complete. The three

factors explained below constituted issues to be taken into consideration since they acted

as possible barriers that needed to be removed or at least, observed.

First, one of the challenges of this study was to find—and retain—enough international students to make the study valid and meaningful. Overcoming this barrier required identifying several classes with high number of international students in them. The literature reveals a wide array of sample sizes in various studies, ranging from samples of under 40 students (Ladd & Ruby 1999; Lee & Rice, 2007) to those in the hundreds (Athos, 2005; Dozier, 2001; Hanassab, 2006), and even some with more than 67,000 participants (Zhao, Kuh, & Carini, 2005). For this study, a target sample between 50 and 100 was desired, which is similar to what Abdous et al. (2009) planned.

Second, given that there were a limited number of classes featuring available coursecasts at any given university, enough classes—and enough universities—needed to be identified and retained for the study. For example, Duke University only offered 15 courses with available podcasts (Belanger, 2005), and other universities offered similar number of courses available. Permission to gain access to using classes in different colleges required a number of different documents and approval processes.

Finally, the third barrier had to do with the method used for the selection of the sample, since it could, in itself, constitute an issue, due to the use of criterion sampling and the presence of researcher and subject bias (Issac & Michael, 1997).

Definition of Terms

The following is a list of specific terms that were used throughout this study. They are listed in alphabetical order.

Auditory Learning refers to a specific learning style where the person acquires information more efficiently through listening and hearing. According to Felder and Silverman (1988), auditory learning is one of the three learning style categories—visual and kinesthetic being the other two—that associated with how individuals obtain or perceived information (Felder & Silverman, 1988). According to Boulos et al. (2006), at least 30% of all learners are auditory since, as Nash (2006) and Chan and Lee (2005) note, spoken language creates an emotional intimacy that reduces anxiety and isolation. In an academic setting, auditory learners prefer lecture-type, speeches, or oral sessions, and need extensive process time. They ask for oral repetitions and demand supplementary information. They like people to rephrase and to deal orally with concepts. In summary, they "must understand the facts and then understand the whole concept" (Zapalska & Brozik, 2006, p. 329).

Coursecasting refers to podcasting done in an academic setting. The term will be used interchangeably when academic podcasting is discussed.

Cultural Adjustment refers to the process of adaptation that a person experiences when moving from one cultural environment to another, in particular when relating to people from the other culture (Sodowsky & Lai, 1997). Generally, cultural adjustment involves two aspects: intercultural competence, which addresses the way in which a person relates ethnically to another; and acculturative distress, which addresses stress caused by the issues affecting a cultural transition. Language proficiency (oral and written), therefore, reduces cultural conflicts and serves as a significant factor in the adjustment process (Dao, Lee & Chang, 2007; Yeh, 2003).

Educational Experience refers, in this study, to international students' overall satisfaction with their decision to study in a foreign country. It includes factors such as academic performance, cultural adjustment, and integration, since these impact their satisfaction, and thus, their retention in higher education programs.

English Language Proficiency and Comprehension is defined as the way in which people make sense of language presented in written, spoken, or signed form, and it involves making inferences and constructing meaning. English language proficiency and comprehension are identified as variables that affect the psychological adjustment of international students, their learning, their satisfaction, and retention, as the lack of English language skills has been recognized as a major hindrance to their learning process (Brook & Adams, 2002; Campbell, 2005; Cigularova, 2004-2005; Hsieh, 2007; Ladd & Ruby, 1999; Lum, 2006; Olivas & Li, 2007; Poyrazli & Grahame, 2007; Swanson, 2006; Van Nelson, Nelson, & Malone, 2004; Zhao, 2006). In this study, the main focus will be on oral comprehension and fluency.

Freshman Students are defined as first-year undergraduate students in a higher-education institution (university or college). For the purpose of this research, freshman students can also be defined by the number of earned credits, which should be anywhere from zero to 28.

GPA refers to the abbreviation of Grade Point Average, an assessment metric use by educational institutions to contrast the academic standing of the students. In the United States, GPA is presented in a 4-point scale, with 4 being the highest score.

International Students are defined, for purposes of this study, as any students whose original/maternal language is other than English, even if the person was born in the United States. Students coming from other countries to United States with an F-1 visa, and whose original/maternal language is not English, make the majority of this group. The F-1 visa is a non-immigrant visa for people that want to pursue full-time academic studies and/or language training programs in the United States. The United States Citizenship and Immigration Services agency authorizes the visa, which is given only through an academic institution.

Language Anxiety refers to communication apprehension and fear of negative evaluation, usually resulting in failure or confusion, or in avoidance or excessive effort (Goshi, 2005; Randall, 2007). In international students, poor language skills, often result in high levels of stress and anxiety that cause them to feel marginalized and isolated from the greater group (Bruen, 2002; Dozier, 2001; Feizi, 1990; Goshi, 2005; Hinchcliff-Pelias & Greer, 2004; Mills et al., 2006; Swanson, 2006; Trice, 2007; Woodrow, 2006). Language anxiety, which has a direct effect on their learning, may include trouble concentrating in the subject, the failure to remember things, palpitations, class and/or participation avoidance, among other things (Randall, 2007).

Legitimate Peripheral Participation (LPP) Theory refers to the process of how newcomers become integrated, and ultimately gain membership, to a community of practice. The main concept of the theory is that learning only takes place through a relationship of social interaction (Lave and Wenger, 1991). It is defined as legitimate because the person wishing to participate is already member of the community of practice. It is defined as

peripheral because these unqualified members start their learning process peripherally before they can progress and become experienced members. It is defined as participation because it is through the repetitive performance of activities that they acquire their knowledge (Lave and Wenger, 1991).

Marginality and Isolation refers to the underlying social conditions of exclusion, segregation, alienation, restricted participation, and failure to belong to a dominant group (Grey, 1992). It is often manifested in feelings of inadequacy to communicate successfully due to language comprehension deficiencies (mostly oral), and it seems to be a phase of transcultural adjustment that students experience when immersed in another culture (Badur, 2003). Marginality is also one of the four adaptation strategies of the acculturation model, where a lack of participation in the practices of the dominant group becomes the norm (Yeh, 2003), thus, causing isolation. Language barriers are among some of the causes of isolation and marginality in international students. Although the literature treats both terms somewhat interchangeably, in this study both terms will be used together since one cannot exist without the other.

MP3 Players are defined as electronic devices that store, organize, and play audio files. Although some of them may also play video, this study will not use that option. The most common example of an MP3 player is Apple's iPod.

Podcasting refers to the method of automatically distributing audio and video files over the Internet using RSS or Atom syndication formats. Once subscribed, users can play their files using mobile devices, such as MP3 players, and/or personal computers (Podcasting, n.d.). Podcasting is also referred by many people as Audio Blogging or as

Internet Broadcasting (Gay, Price, & Searle, 2007). When discussing podcasting associated with an academic setting, the term coursecasting will be used instead. Nevertheless, the two terms will be used interchangeably throughout the study. See coursecasting.

RSS refers to an XML format for the automatic delivery of Web content. A major advantage of the format is that it allows the aggregation of Web content from different sources. Depending on the RSS version, the meaning of the term stands for Really Simple Syndication, for version 2.0; and Rich Site Summary or RDF Site Summary, for version 0.91 or 1.0 (Pilgrim, 2002).

Situated Learning Theory refers to the idea that learning takes place within an activity, context, and culture in which it takes place; rather than in an abstract and/or out-of-context way. Brown, Collins and Duguid (1989) further developed the theory by maintaining that when students learn to use certain domain-specific tools within that domain's activity, they advance their learning by constructing knowledge inside and outside the classroom. Furthermore, they explain how the nature of this learning allows them to advance through collaborative social interaction.

Summary

The study is organized in five chapters. Chapter I presents an introduction to the background of the problem and the related research. More specifically, it addresses the importance of international students to American campuses, and presents the goal of the study, which is to explore the effectiveness of podcast technology on language

proficiency and oral comprehension, marginality and isolation, and anxiety from a Situated Learning perspective. In addition to exploring Situated Learning, the chapter also includes an overview of the issues affecting international students, as well as an overview of auditory learning, technology-enhanced instruction, and podcasting. The chapter also addresses the need for the study, its purpose, the theoretical framework that will guide it, its significance, any assumptions and limitations, and a review of significant terms. Included in Chapter I are also the three research questions guiding the study, which are: What impact does the use of downloadable coursecasts have on international students' oral language proficiency and overall English comprehension as measured by the SRFES? What impact does the use of downloadable coursecasts have on international students' feelings of anxiety as measured by the FLCAS and CADC? What impact does the use to downloadable coursecasts have on international students' feelings of marginality and isolation as measured by the CADC?

Chapter II provides the philosophical perspective guiding the study, followed by a review of the literature pertaining to language deficiencies; anxiety, marginality, and isolation; and podcast technology and learning; as well as an overview of other related studies and instrumentation, including oral comprehension and verbal fluency; anxiety, marginality, and isolation; and collection methods for podcasting data. Chapter III explains the methodology for the research; including the hypotheses, a description of the assessment instruments, the research design, the procedures and methodology for data collection and data analysis, and the validity and reliability of the study.

Chapter 2

Review of Related Literature

Introduction

This study proposes to explore the ways in which the availability of downloadable coursecasts may impact international students' educational experiences. More specifically, the study proposes to research the impact that available downloadable coursecasts have on international students' perception of marginalization and anxiety, as well as on their English language comprehension and proficiency. Given that poor language proficiency and deficient oral comprehension seem to develop feelings of marginality and isolation in international students, while causing them high levels of anxiety, studies that explore and address these variables will also be reviewed.

The first section of this review, therefore, gives an overview of the issues that shape the cultural adjustment of international students, which establishes that language deficiencies play an essential role in the perception of anxiety, marginality, and isolation. As a result, the following sections explore the effect of language deficiencies on international students prior to exploring the concepts of anxiety, marginality, and isolation. In order to explore the educational use of MP3 technology and, more specifically, of coursecasting, as a tool to aid in the cultural adjustment of international students, an evaluation of podcast technology and its use in learning will be reviewed.

Finally, instrumentation related to oral comprehension and verbal fluency; anxiety,

marginality, and isolation; and podcasting data collection methods will be discussed.

Issues that Shape the Cultural Adjustment of International Students

As it has been explained before, international students often face adjustment

issues that affect their academic performance, and therefore, their level of satisfaction

with their overall university experience. When this happens, it becomes harder for

universities to retain them. Often, these adjustment issues have to do with language

comprehension, particularly during class, as well as with the feelings of anxiety and

isolation they develop as a result of their language deficiencies (Athos, 2005; Badur,

2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi,

2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006;

Mills, Pajares, & Herron, 2006; Poyrazli & Grahame, 2007; Swanson, 2006; Sümer et al.,

2008; Van Nelson, et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer,

2003; Zhai, 2002; Zhao, 2006).

Although international students have always coped with many challenges when

adapting to new living and learning surroundings, in the case of students coming to the

United States, these challenges have only increased following the tragic events of the

September 11th attacks. The tragedy brought tougher regulations and a closer follow-up

system put in place by the government. Poyrazli and Grahame (2007) indicate that the

adjustment experiences of international students can be divided into four groups: the

experiences at the initial transition, those experienced within their academic life, those

experienced within their social life, and other psychological experiences such as homesickness, depression, isolation, etc. Through all these adjustment experiences, language barriers play a key role in defining the stress and anxiety levels of students. According to Zhao (2006), misunderstandings and misinterpretations often leave them frustrated and feeling useless, which according to Badur (2003) and Yeh (2003) can make them develop feelings of marginality.

Generally, cultural adjustment involves two aspects: intercultural competence, which addresses the way in which a person relates ethnically to another; and acculturative distress, which addresses stress caused by the issues affecting a cultural transition. Language proficiency (oral and written), therefore, reduces cultural conflicts and serves as a significant factor in the adjustment process (Dao, Lee & Chang, 2007; Kwon, 2009; Sümer et al., 2008; Yeh, 2003). According to Poyrazli and Grahame (2007), the initial transition period is usually the most difficult for international students. It is in this period when they have to find a place to live, deal with how to get food, as well as how to do their daily errands. Their research further indicates that international students will experience higher levels of stress when they have low levels of self-confidence and self-efficacy, as well as poor English skills. Poyrazli and Grahame (2007) explain how stressful it is for international students to discover and understand the new academic culture of the country, which includes how to relate and communicate with faculty members and classmates, how to deal with teaching styles and curriculum differences, class discussions, and assignment expectations.

Kwon (2009), Sümer et al. (2008), Woodrow (2006), and Goshi (2005) observe that language anxiety in foreign students significantly impacts language proficiency and performance, and is a major predictor of cultural adaptation. Given that language anxiety and communication apprehension can cause feelings of marginality that can be very evident in classroom settings, Woodrow (2006), as well as Kwon (2009), also note how important it is for educators to address these issues as early as possible, especially because they clearly affect student performance. Similarly, a very important aspect, according to Cigularova (2004-2005), is to have practices and procedures in place to meet international students' social and academic needs as soon as they arrive on campus, or otherwise, their adjustment will suffer greatly. Poyrazli and Grahame (2007) concur by suggesting that institutional programs and faculty efforts that deal with these concerns will facilitate a faster cultural adjustment into their academic life. Understanding, therefore, how to contribute to the adjustment process of international students becomes necessary because, as Badur (2003) explains, reducing their anxiety is essential for their intercultural adaptation, and thus, for their academic success. Gifford, Briceño-Perriott, and Mianzo (2006) suggest that one way to improve on retention, for example, is to reduce anxiety by increasing students' self-confidence, which also improves their academic achievement. Similarly, Zhao (2006), as well as Sümer et al. (2008), cite academic and emotional preparedness issues as two of the three factors affecting retention.

Interestingly, the findings do not seem to be limited to undergraduate education. When Van Nelson, Nelson, and Malone (2004) explored the factors associated with

success of graduate international students, they identified proficiency in the English language as "the single most important factor influencing international graduate students' academic coping ability" (p. 20).   Dozier (2001) concludes that the lack of language skills shown by international students is problematic because, regardless of how well they may perform academically sometimes, programs seeking to enrich their language skills are crucial to their proper integration in the life of the college. Kaveh's findings (1990) go further by suggesting that these language enrichment programs are most effective when directly related to the students' academic areas of study, while Le, Casillas, Robbins, and Langley (2005) note that contextual learning yields positive academic results in students considered at-risk, retention-wise, when interventions are provided early in the students' academic life. Similarly, Kwon (2009) notes that understanding the factors that affect international students' transition and success in American institutions should be of utmost importance to educators in order to create programs and support mechanisms to help them.

Language Deficiencies

        As it has been explained earlier, language proficiency and oral comprehension have been identified as variables that affect the psychosocial adjustment of international students, their learning, satisfaction, and retention. The lack of English skills evident in many international students has been recognized as a major hindrance to their learning process, primarily because it impacts their confidence to speak in class, thus also affecting their academic success (Brook & Adams, 2002; Campbell, 2005; Cigularova,

2004-2005; Hsieh, 2007; Kwon, 2009; Ladd & Ruby, 1999; Lum, 2006; Olivas & Li, 2007; Poyrazli & Grahame, 2007; Swanson, 2006; Sümer et al., 2008; Van Nelson, Nelson, & Malone, 2004; Zhao, 2006). Usually, this lack of confidence is the result of oral comprehension deficiencies and language anxiety.

According to Jay (2003), oral comprehension is defined as the way in which people make sense of language presented in written, spoken or signed form, and it involves making inferences and constructing meaning. It is different from language acquisition in that acquisition is more concerned with how, and when, language is learned. Although international students coming to the United States to study are required to pass an English language proficiency exam, spoken proficiency and oral comprehension are usually not tested, and students who may score highly on the written test, may not fare as well in a spoken environment. Normal, spoken conversation requires guessing on the part of the listener, especially with respect to the intent of the speaker (Boland in Carreiras & Clifton, 2004). The reason for this is that spoken language streams in a continuous manner, and a listener must translate the information into a coherent and unique understanding in real time, despite any possible ambiguity present in the information (Osterhout, McLaughlin, Kim, Greenwald & Inoue in Carreiras & Clifton, 2004).

Levinson, in Gentner and Goldin-Meadow (2003), explains that the ambiguity present in second language learners with respect to comprehension is not only expressed in the auditory realm, where it makes the perception and production of alien speech sounds difficult, but also in the linguistic categorization of visual perceptions. For

example, a native speaker may say a word, and the foreign learner will understand something else because he or she does not differentiate between two subtle vowel sounds or may not visualize the concept (if an actual visual is available) because the word/concept does not have an equivalent in the foreign language. In those situations, the comprehension will be greatly affected. For example, words such as "bin", "been" or "bean" are pronounced very similarly, and sound almost alike to the foreign ear.

According to Ormrod (1999), when comprehension is challenged, academically competent students engage in what is known as comprehension monitoring, which is defined as periodical checks done by the student him/herself to make sure that he or she is understanding (and not misunderstanding) the material correctly. One of the ways in which students do this is by asking questions in class. If international students do not feel confident enough to ask questions because of deficiencies in language comprehension skills, they will not be able to monitor their understanding of content (Maki & Maki, 2002) or they will develop survival strategies to try to guess meanings that will probably lead them to misunderstand lectures even more (Brooks & Adams, 2002). Brooks and Adams (2002), for example, note that often, the academic issues experienced by international students are more likely the result of English deficiencies than teaching or learning ones. In fact, these researchers concur with others in believing that, whenever studying in a foreign country, the lack of language proficiency and poor oral comprehension prove to be far greater obstacles to the academic success of international students than the mere differences in culture.

Bretag (2003), for example, conducted an action research study among 23 international students with poor language comprehension skills who participated in a support program that clarified any concepts that had not been understood in class. This group was chosen because these students did not participate or contribute to class discussions. Through qualitative surveys and quantitative analysis of the students' final grades, the author found that support tutorials had had a positive impact on their learning. The results concluded that these tutorials did not change regular class attendance and, in fact, helped students to feel confident enough to participate more actively, which lead to better academic achievement.

Similarly concerned with exploring the relationship between English language proficiency and academic achievement, Brooks and Adams (2002) used the Frequency of Speaking English measure to compare two cohort populations of first-year business students. The authors used four class assessments among 144 local and international students to measure their self-perceived English language competence and oral comprehension proficiency.   Results showed that local students had consistently higher scores than international students, which meant that international students were not as comfortable with the use of English. They also found that the same pattern prevailed in their academic achievement. Overall, their findings suggest that there might be a relationship between the completion of assessment tasks and the students' overall language proficiency and comprehension, which interferes with their learning. Consequently, the authors conclude that their results have significant implications for

educators and universities, and suggest the need for support to help international students to improve their language skills and academic achievement.

If, as the study conducted by Brooks and Adams (2002) suggests, increased proficiency is related to higher academic performance, not only is it important for educators to offer support to international students, but it would also be important to identify measures to help educators to determine academic readiness. In her dissertation, Thannisch (1992) explored this very issue by correlating academic readiness to entering GPA and initial TOEFL and English Language Placement (ELP) scores. According to the author, if educators can initially assess international students' academic readiness, they will be able to offer support programs that are more tailored to what these students truly need to succeed. After examining reported scores for 166 entering undergraduate freshmen at Texas A&M University, Thannisch found that there was no statistically significant correlation between the TOEFL and international students' Grade Point Average (GPA). However, Thannisch did find that the Oral Interpretation and the Listening Comprehension portions of the English Language Placement (ELP) test were significantly correlated with GPA. According to Thannisch, her findings seem to suggest that oral comprehension might be a better predictor of academic success in international students than written or reading proficiency, despite most universities reliance on TOEFL as the main tool to assess international students' readiness.

Similarly, Stacey and Whittaker (2005) explored TOEFL's accurateness to predict academic readiness in international graduate students at Loma Linda University. Like Thannisch (1992), they wanted to investigate whether the traditionally-used and

standardized TOEFL would predict future academic performance and competence for international dental school applicants. The authors correlated entrance data for 100 international students by looking at TOEFL, Graduate Record Examination (GRE), National Board Examination (Parts I & II), Faculty interview, and undergraduate GPA scores. Their findings revealed that National Board Part II, which tests real dentistry knowledge, was the most significant predictor of academic performance, but that TOEFL was not significantly correlated to academic performance or dental competency. The other measures did not contribute either to the prediction of academic performance. Nevertheless, the authors conclude that mastery of English language did help students to perform better academically, if anything because it helped them excel in their National Board Examinations.

Van Nelson, Nelson, and Malone (2004) also focused on graduate international students, but instead of investigating TOEFL's predictive ability with respect to academic readiness or performance like Thannisch (1992) or Stacey and Whittaker (2005), they explored its ability to predict retention and completion rates. According to the authors, retention and program completion is a very effective way to determine the academic success of graduate international students. A historical approach was used to correlate the academic records of 866 graduate students—enrolled in a variety of majors—at an American university between 1987 and 2002. These records included TOEFL scores, graduating GPA at the time of completion, GRE scores, and completion or non-completion of the degree.

The findings of Van Nelson, Nelson, and Malone (2004) showed that TOEFL scores alone were not an accurate predictor of program completion. Nevertheless, the TOEFL was correlated to GRE scores, which also correlates with academic performance as measured by GPA. Consequently, the authors concluded that TOEFL alone could not accurately predict completion of a graduate program, but that when coupled with other factors may, in fact, predict academic performance. Their conclusions seem to mirror their review of the literature, which described language proficiency as "the single most important factor influencing international students' academic coping ability" (p. 20). Like Stacey and Whittaker (2005), they also conclude that although English proficiency helps students to pass written examinations, success in a graduate program depends more on the consistent use of proper, spoken English. Therefore, and even if their correlation study was not intended to be predictive, the authors recognize that language proficiency, together with factors such as attitude, independence, motivation, dedication, feelings of marginality, emotional difficulties, satisfaction, personal health and finances, may be essential contributors to graduate school success. Consequently, the authors urge schools to have support mechanisms in place to help these students identify language skills areas that may need reinforcement.

The importance of spoken English as a skill separate from traditionally-assessed proficiency has become evident for many authors. As suggested by Bruen (2002), Dozier (2001), Feizi (1990), Kwon (2009), Mills et al. (2006), Lee and Rice (2007), Yeh (2003), Yildiz and Belchemeyer (2003), Sümer et al. (2008), Swanson (2006), and Zhao (2006), the lack of oral proficiency impairs comprehension, which affects international

students' adjustment by causing misunderstandings and feelings of marginality that result when students cannot actively participate in classes.

Consequently, the lack of English language skills results in additional challenges for international students. Hsieh's (2007) qualitative, narrative study, for example, found that one of the reasons why a Chinese female refrained from speaking in her American class was because she felt inferior and marginalized due to the fact that she could not contribute to conversations and discussions due to poor language skills and limited comprehension. Through a thorough combination of lengthy interviews, informal conversations, and participant's autobiography, the author tried to gain an overall understanding of a Chinese student's adjustment experiences in an American university. Hsieh's findings revealed that her lack of participation due to oral language anxiety marginalized her to the point that even her instructors mistook her silence for incompetence. According to the author, it is obvious that these educators ignored the fact that her oral deficiency made it harder for her to express her thoughts in their totality, making her a quiet student instead. Hsieh's conclusions hint to the implications that the study has for educators, which hint to the need for educators to understand that lack of oral proficiency often makes international students quiet in class, yet this may not necessarily reflect a student's academic knowledge or personality, as was the case with the student in this study.

Olivas and Lee (2007) also explore the role of oral language proficiency in the adjustment of international students, but their research expands their implications to other aspects of university life, especially to those areas that come in contact with students

upon their arrival. In their study, the authors conducted a thorough review of the

literature pertaining to stressors impacting international students in higher education,

where they found that language deficiencies constitute significant sources of stress

precisely because they affect not only how students fit socially, but also how they

perform academically. More concretely, they reviewed ways to reduce stress and

promote positive coping strategies. In their opinion, the multicultural competency of

educators and university administrators plays a key role in meeting international students'

needs. Multicultural competency will help educators to realize that international students

may not voluntarily seek help or disclose what they need, and may benefit from being

reminded of what is available to them. Other suggestions include making use of new

student orientations to offer support programs and resources.

The role of language proficiency in the adjustment process of international

students was also explored by Dozier (2001). Her study compared language competency

and academic performance between documented and undocumented international

students in an urban college in New York. Although such a study would be very difficult

to replicate under the stricter visa policies currently in effect, it is worth including

because of its language proficiency findings. The author analyzed data for 294

documented and 246 undocumented students in a New York community college. A

variety of records, including country of origin, GPA, placement tests, high school

information, and other demographics were analyzed and compared. Her findings

revealed that both groups were quite different. In fact, undocumented students fared

better in their placement language tests, most likely due to their illegal status in the

United States before enrolling part-time in college. Documented students, on the other hand, scored lower but came straight from a foreign country and were enrolled full-time. Nevertheless, for both groups language proficiency was crucial, and both groups could benefit from additional support. Although some of these documented students were performing well academically, the authors noticed that their poor language skills hindered them from becoming more engaged and adjusted, which was not the case with the undocumented students who had been in the United States for, at least, a year before enrolling. As part of her conclusions and implications, Dozier suggests that given the differences in language proficiency needs between documented and undocumented students, language enrichment opportunities should be available separately, but are still essential to ensure academic performance.

Kwon (2009) similarly studied the factors affecting international students' transition into higher education, particularly with respect to gender, ethnicity, and graduate status. Self-perceived language proficiency, which tended to be lower among Asians, as well as feelings of anxiety and isolation were present among both undergraduate and graduate students, and were key to the adjustment of these students. The study analyzed the responses of 165 randomly selected international students in the mid-east United States, out of which 78 were male and 87 were female, ranging in age from 18 to 43, and hailing from 50 countries. Out of the 165, 51 were undergraduates. All participants completed a self-reporting English language proficiency survey and a demographic questionnaire, which asked about feelings of isolation and levels of anxiety. Overall, Asian students rated themselves with lower English language proficiency, but

there were no other significant differences between undergraduates and graduates with

regards to anxiety or isolation, even though females were a bit more prone than males to

claim homesickness. Among the most salient conclusions of the study, Kwon noted how

"the level of English proficiency had a strong impact on the feelings of isolation or even

intimidation in English speaking classrooms" (p. 1028). Furthermore, Kwon (2009) also

notes that when students rated their self-perceived English language proficiency to be

high, they also showed less anxiety and isolation. In its conclusions, the author urges

educators and even legislators to familiarize themselves with research in these areas in

order to help international students make better transitions into American institutions of

higher learning.

Anxiety, Marginality, and Isolation

The cultural, social, and economic importance of international students has been

well established. The need to explore the issues that contribute to their successful

adjustment is often mentioned in the literature, especially because their retention and

satisfaction is of utmost importance for educators and institutions of higher education.

Unfortunately, their retention and satisfaction is often threatened by cultural conflicts that

affect their adjustment, thus causing them to develop anxiety and feelings of marginality

and isolation that may ultimately also impact their academic success.

According to Jiao and Onwuegbuzie (2002), academic anxiety has a debilitative

effect on students, and negatively affects their academic performance because it hinders

their ability to receive and decode, focus and concentrate on, and transmit and encode

information. Furthermore, the authors suggest that this cognitive interference hinders

students' ability to apply new knowledge when solving a problem and makes it

troublesome for them to remember what was previously learned. For international

students, lack of language proficiency is usually at the bottom of what causes them

academic anxiety, thus leading to the development of feelings of marginality that isolate

them from the group. When students cannot communicate effectively, they experience an

increase in cultural conflicts that hinder their adjustment process. As a result, a negative

correlation exists between anxiety and academic performance that makes students feel

that they are not as competent as the other classmates (Randall, 2007).

Naturally, language is an essential factor affecting cultural adjustment because it

plays a vital role in the way in which a person relates ethnically to another (intercultural

competence) as well as in determining the success or failure of a student's cultural

transition (Dao, Lee & Chang, 2007; Hinchcliff-Pelias & Greer, 2004; Kwon, 2009;

Sümer et al., 2008; Yeh, 2003). When students cannot communicate meaningfully due to

lack of language proficiency, these students experience high stress and anxiety levels that

make them retract from further contact for fear of not being understood, thus causing

them to feel marginalized and isolated from the group (Bruen, 2002; Dozier, 2001; Feizi,

1990; Goshi, 2005; Hinchcliff-Pelias & Greer, 2004; Kwon, 2009; Mills et al., 2006;

Swanson, 2006; Sümer et al., 2008; Woodrow, 2006). Furthermore, Horwitz

differentiates general academic anxiety from language anxiety by noting that although

both are connected to emotions and not with the cognitive ability of the individual, it has

been well-documented that language anxiety causes damaging effects on learning
(Randall, 2007).

According to Billson, marginality is classified into three areas: cultural, social
role, and structural marginality. Cultural marginality is defined as the adaptation process
that takes place when an individual is involved in two cultures, and thus experiencing
approval or disapproval from other members in either culture. Social role marginality
refers to the unsuccessful attempt of an individual to be part of a reference group. This
type of marginality is commonly experienced by those involved in sports, by women
working in careers that are socially attributed to men, or even in schools. In other words,
marginality takes place when individuals are not allowed to be involved in group-
established activities. Structural marginality refers to the political, social, and economic
helplessness associated with sectors of society that makes individuals get a sense of
mistreatment, abuse, and repression (Grey, 1992).

Marginality, as defined by Badur (2003), is a feeling of inadequacy to
communicate successfully due to language comprehension deficiencies (mostly oral), and
it seems to be a phase of transcultural adjustment that students experience when
immersed in another culture. According to Yeh (2003), marginality is one of the four
adaptation strategies of the acculturation model, where a lack of participation in the
practices of the dominant group becomes the norm. Equally, isolation occurs when a
failure to adjust to a different culture prevents students from participating in the social
practices of the dominant group (Trice, 2007). According to Trice (2007), isolation can
be caused by language barriers, over dependence on co-nationals or a lack of time to

establish friendships. The literature uses both terms—marginalization and isolation—somewhat interchangeably, and that is the approach that this research will use when addressing students' feelings of separation from the dominant group.

Language anxiety, on the other hand, and as defined by Goshi (2005), includes communication apprehension and fear of negative evaluation, which usually result in failure or confusion, or in avoidance or excessive effort. Physical responses include palpitations, sweating, and sleeplessness, among others. Rodríguez and Abreu (2003), and Horwitz, Horwitz and Cope (1986), also added test anxiety to the two performance anxieties defined by Goshi. In their opinion, these three interrelated performance anxieties arise as the result of international students' low self-perception regarding their language skills. According to Trice (2007) and Hinchcliff-Pelias & Greer (2004) the anxiety caused by poor language skills also results in students' avoidance to participate or engage academically and socially, thus impacting their cultural adjustment and contributing to their feelings of marginality and isolation. Furthermore, Randall (2007) cites how Horwitz explains that "the need to comprehend every bit of foreign language input in order not to feel anxious – and to understand the speaker's target message – is another aspect of communication apprehension" (p. 2).

Given that language anxiety and communication comprehension can make students feel marginalized and isolated, Cigularova (2004-2005), Goshi (2005), Kwon (2009); Lee and Rice (2007), Poyrazli and Grahame (2007), Sümer et al. (2008), and Woodrow (2006), suggest that institutions need to explore ways in which to help students alleviate this anxiety and increase their communication comprehension from the onset, so

as to not affect their adjustment and academic performance once they arrive on campus.

As Woodrow (2006) indicates, the anxiety that students undergo by not being able to

effectively communicate in English can incapacitate them to adjust to their new

surroundings, thus eventually affecting their educational goals. Furthermore, Lee and

Rice (2007) and Hanassab (2006) remind institutions that they have a responsibility

towards international students, their satisfaction, and academic success, thus noting the

importance of conducting studies that explore international students' actual experiences.

Such research, they believe, will help institutions to determine what programs and

services may be best suited to ensure the academic success of international students while

supporting their overall cultural adjustment. Hanassab (2006) also believes that by

assuming this responsibility, institutions of higher education will be fulfilling their

mission to educate a multiculturally competent student population. This is especially true

because as Young (1991) observed, the source of the student's anxiety is connected often

to the instructional approach or system used by professors, which obviously suggests that

methods of instruction could be improved.

In an attempt to understand the factors that impact cross-cultural adjustment to

American higher education, Badur (2003) interviewed 32 undergraduate and graduate

students, and followed up with additional interviews of another 8 students for his

dissertation. Interviews and narrative accounts were qualitatively analyzed to identify the

factors that hindered or enhanced the students' adjustment. Similarly to what Kwon

(2009) and Sümer et al. (2008) found later one, Badur's (2003) findings revealed that the

use of English and the fulfillment of expected roles (whether academic or social) within

American educational and cultural systems were vital to the successful integration of international students. More specifically, his findings showed that their oral anxiety—despite seemingly adequate TOEFL scores—resulted in feelings of marginality that clearly affected their adaptation and caused them discomfort.

Additionally, this lack of language proficiency also required international students to devote more time and effort to learning their new role expectations causing them additional stress. For example, it is expected that international students will adopt a role as active participants in classroom discussions, which, with their lack of oral proficiency, becomes a very stressful step in their adaptation process. Understanding lectures was also identified as difficult and overwhelming by these students, who claimed that they often missed out on the discussion because they required more time to make sense of what was being said, thus falling behind and feeling marginalized or left out.

Sümer et al. (2008), for example, also found that "self-rate English proficiency uniquely contributed to the variance in both depression and anxiety" (p. 429). Unlike Kwon (2009), however, the authors found that Latino/a students experienced more anxiety and depression than Asian students. The study also explored other factors such as age, gender, race, social support, and length of stay. A total of 440 international students from two universities located in the east were administered anxiety and depression scales in a Web-based format. The study concluded that those with lower levels of social support reported higher levels of depression, which also contributed to higher levels of anxiety, particularly in older students. Similarly, lower levels of self-reported English language proficiency also contributed to higher levels of depression and

anxiety, although unlike Kwon (2009), there was no correlation with gender. Most importantly, the authors encourage further research to be conducted in an ecological perspective in order to find ways to help these students adapt with less difficulty.

Interestingly, in the studies of Kwon (2009), Sümer et al. (2008), and Badur (2003), most of these students agreed that English fluency meant much more than having the appropriate vocabulary or grammar knowledge. In other words, it meant more than having writing or reading proficiency. In their opinion, to be fluent in the language, a person was required to also develop of a set of skills to be proficient in conveying and comprehending oral exchanges. This observation seems to mirror Goshi's (2005), who found that language has an important psychological component because "it directly threatens an individual's self-concept and world view" (p. 64). Similarly, it also reflects Kang's (2006) point of view, which suggests that language is the main vehicle from which "cultural information and heritage are exchange and shared" (p. 688). As such, language proficiency can anticipate the psychological adjustment that individuals have to go through better than other dimensions of acculturation. In his conclusion, Badur (2003) suggests that institutions must increase their awareness of international student needs and expectations in order to enhance the instructional support they offer to these students. Among the suggestions, Badur mentions the use of technology to add variety to delivery methods and increase language experiences.

Similarly, Dao et al. (2007) found that self-perceived English fluency played a strong role in the acculturation of Taiwanese international students, especially with regards to their level of depression. Feelings of alienation and loneliness, language

barriers, and other issues that cause them stress, such as academic and financial difficulties or discrimination, affect the adjustment of international students and their academic performance. The barriers posed by language are identified as one of the main causes of anxiety, not only because the lack of language fluency affects their academic competence, but also because it hinders the building of interpersonal relationships, thus making them feel disorientated, isolated and marginalized. In fact, the authors found that perceptions of English fluency "may potentially mediate the development of psychological distress among international students" (p. 289), and thus, suggest further studies.

Similarly, Klomegah (2006) also studied the factors related to alienation in international students by focusing on factors that may cause them to feel alienated, but unlike other studies, his findings show no evidence that the alienation felt by international students is different from that felt by American students. His quantitative study used a three-part Likert-scale questionnaire to collected information on home region, length of stay, and frequency of social contact as mediating variables among 51 international and 43 American students enrolled in a small American university. Klomegah also conceptualizes alienation using Seeman's five-fold classification, which divides alienation into the following elements: powerlessness, meaninglessness, normlessness, isolation, and self-estrangement. Powerlessness is framed as the level of influence that a person feels he or she has over events. Meaninglessness is described as the level of understanding of the task at hand, and the inherent need for making choices pertaining to the task. Normlessness is understood as the anxiety derived from applying socially

unaccepted norms or behaviors in order to achieve a goal. Isolation is the level of

detachment from a group that results when low value is placed on behaviors typically

regarded as important by the members of that group. Finally, self-estrangement refers to

a lack of worth, where a person's actions, thoughts, and contributions are thought to have

no value except for their effect on others. His findings revealed that the lack of social

factors that allegedly make alienation or marginalization rates higher impact both groups

in relatively the same way. According to his classification, Klomegah's findings showed

that social contact is highly associated with alienation, while length of stay has a weak

association, and home region shows no relationship. Ultimately, Klomegah concluded

that both groups could and would benefit from programs geared towards helping students

to adjust, such as buddy programs, events, host families, etc.

Instead of looking at other acculturation factors, Woodrow's (2006) focus was

solely on second language anxiety. More concretely, her research explored the

relationship between oral anxiety and second language performance to conceptualize

second language anxiety in its own right. Participants included 275 entering foreign

students to an Australian university, who took the Second Language speaking Anxiety

Scale (SLSAS), which was developed for the study and consists of 12-question, Likert-

style scale. Woodrow's (2006) results explain how second language anxiety negatively

affects the oral performance of students, and how it is identified as an important factor in

determining the student's success in adapting to a foreign environment. Language

anxiety, which she describes as a situation-specific, and state anxiety (of temporary

nature, and not associated with a personality trait), was seen as a factor that interferes

with learning and impacts the students' oral ability. In her concluding notes, Woodrow suggests that educators must be sensitive to language anxiety and recommends strategies to help international students to build their language skills in ways that help them relax and focus on the material. Among the strategies recommended, Woodrow mentions increasing students' opportunities to be exposed to the language in and outside the classroom with rich linguistic resources.

Podcast Technology and Learning

As explained earlier, the term podcasting describes the process by which audio or video files can be distributed through the Internet to different devices (i.e. MP3 players, computers, laptops, etc.) (Stone, 2006). There is some discussion about the meaning of the term podcasting. Rainie and Madden (2005), for example, argue that the term was coined in 2004 when the word iPod (name of Apple's MP3 player) was combined with the word broadcasting. However, other people believe that the first three letters do not stand for the word iPod, but that they stand for the acronyms "personal-on-demand" or "personal option digital" (Lum, 2006). It is precisely this characteristic that differentiates podcasting from other means of obtaining audio recordings.

Although other audio recording methods have been used in education in the past, the fact that podcasting is "on demand" due to syndication is what it makes it unique. Syndication is a process which allows users to subscribe and receive podcasts automatically through Really Simple Syndication (RSS) technology (Frydenberg, 2008).

Syndication not only allows for the automatic download of material as soon as it becomes available, but it is also especially useful when geographical boundaries exist because the podcast feed can be delivered or broadcast to a MP3 player, a cell phone or other portable player automatically, enhancing its portability at a very low production cost (Chan & Lee, 2005; Frydenberg, 2008). Also, RSS technology allows the user to filter the information he or she wants to receive by using specific criteria to match needs and interests, which saves searching time and effort (Chan & Lee, 2005). Ultimately, according to Nash (2006), a podcast differs from an audio file because a "podcast is actually an entire bundle of automated services, while an audio file is simply the file" (p. 280). Furthermore, the cost to produce and distribute podcasts is so minimal that it has also become an advantage over other audio recording methods (Frydenberg, 2008).

Although observers of this technology claim that its use in education is varied, one of the most common uses involves the recording of class lectures so that students can listen to them at a later time. When podcasts are produced for this purpose, the term coursecast is often used (Schroeder & Maag, 2006). Walls et al. (2009), for example, make a distinction between two forms of podcasting based on how most educators have been using them. The authors define "repetitive podcasts" as those done to record lectures and "supplemental podcasts" as those used to enhance educational experience with additional materials and resources. Their study, however, reported that students who were exposed to the repetitive format reported more benefits than those in a supplemental format. Coursecasting would certainly fall within what Walls et al. (2009) define as repetitive podcasts.

Perhaps an additional advantage of coursecasting over other traditional methods relies on a more subtle connotation, which is that to listen to the podcast of a lecture is "cool and hip", while to check a lecture recorded in a more traditional method is "nerdy" (Chan & Lee, 2005).

Deal (2007) divides the podcasting process into three stages: file production, podcast publication, and delivery and playback (see Figure 3 used with permission, Appendix A). In the file production stage is where the preparation of the files takes place. This part, which is usually the most time consuming, is where the planning takes place, the file is recorded, and edited.

The second stage, the publication, takes place when the audio files, as well as the proper RSS feeds, are placed into a Web server. The last stage, the delivery and playback, occurs when the user listens to the podcasts by downloading them through the use of a podcast aggregator (a program which aggregates syndicated Web content) or other means (Deal, 2007).
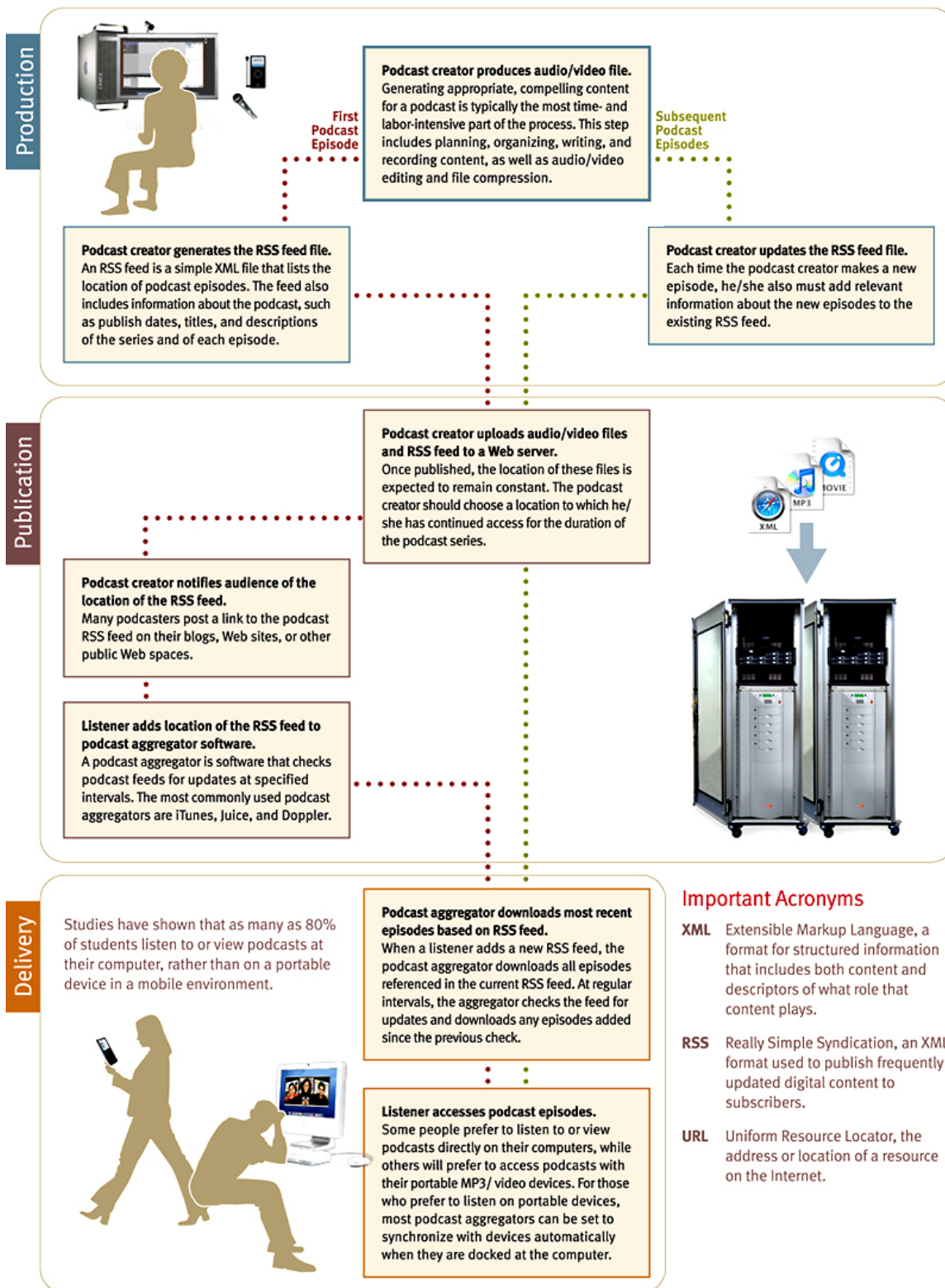
Figure 3. Podcasting: Technical Components and Interactions according to Deal (2007, p. 3). Copyright 2007 by Ashley Deal. Reproduced with permission of the author.

Using audio files as an instructional tool is not new, and its benefits have been

studied for many years. The use of audio files as a medium of instruction is currently

going through a revitalization period fueled by the Internet and faster connections,

podcasting software tools such as iTunes, and portable MP3 players. Researchers believe

that the innovative use of audio files can grab the attention of the students, while offering

potential for generating more appealing and interesting lessons (Schlosser & Burmeister,

2006). In general, audio files are powerful instruments to convey feelings, inspire the

imagination of the individuals, as well as transmit an atmosphere that can produce

powerful learning scenarios (Dao, Lee & Chang, 2007). Chan, Lee, and McLoughlin

(2006) also cite that cognition is enhanced when auditory methods are used, especially

when compared to written texts because communication through the human voice

conveys a more personalized message. Similarly, McCarty (2005) notes that as a

learning medium "audio represents a great leap in sensory input over text" (p. 68).

Furthermore, "the use of audio provides a high-touch learning material that builds a

connection between instructor and students – and among students" (Schlosser &

Burmeister, 2006, p.1). Nevertheless, the power of audio as an effective medium for

teaching and learning has been mostly ignored, and according to Chan, Lee, and

McLoughlin (2006), it might be due to the popular belief that listening does not equate to

comprehension and action.

A summary of the strengths and weaknesses of audio files as instructional tools

was developed by the Scottish Council for Educational Technology back in 1994 (see

Table 1). Although most strengths and weaknesses are still valid nowadays, and could be

applied to podcasting and coursecasting, some of the weaknesses have been overcome by

podcasting technologies (Chan & Lee, 2005).

Table 1. The Strengths and Weaknesses of Audio as a Teaching and Learning Medium. Adapted from Scottish Council for Educational Technology (Chan & Lee, 2005, p. 63)

Strengths of Audio	Weaknesses of Audio
The equipment is cheap and robust. It is also widespread and familiar.	Access to a player is necessary, restricting portability.
Audiotapes are easy, quick and cheap to produce and update. As a result there is a high degree of author control. Tapes are also cheap to distribute and store.	Complex branching and routing is difficult.
They are interesting, personal and intimate. They can be used to provide human contact and advice.	The information conveyed is intangible and, as a result, learners require concentration to absorb facts.
They can be used to incorporate sounds and music and can be a powerful stimulus to the imagination.	It is difficult to absorb complex information, eg a logical argument may be hard to follow and will need confirmation from print or another visual medium for maximum effect.
They can be used more effectively than print to talk learners through a passage and to document discussions, case studies and language pronunciation at work.	It can be difficult to find the relevant point of a tape. They cannot necessarily be used everywhere without headphones, eg in a library.
They are convenient to use. There is a large degree of learner control.	
They can be recorded on by the learner and returned to the tutor to provide feedback.	

The popularization of podcasting among regular users captured the imagination of

educators who began to experiment its potential as an academic tool. Currently, it is

beginning to grab the interest of educational institutions worldwide as well. The first

higher education institution in the world to fully support the use of podcasts as part of

their curriculum was a women's college in Japan called Osaka Jogakuin College. In the

Spring 2004, this college provided 15 GB iPods to every one of the 210 incoming

freshmen majoring in English as a Foreign Language. The goal of the college was to

help the students by allowing them to download and listen to all their English audio

learning aids (McCarty, 2005). In the United States, Stanford University was the first

university to make downloadable lectures available in Spring 2004 (Stone, 2006).

However, Duke University was the first institution to embrace the use of this technology

in a wide-spread fashion by providing MP3 players (20 GB iPods) to its entire freshman

class (approximately 1,650 students) in Fall 2004, and offering close to 16 courses in the

Fall, and 33 in the Spring 2005, that used the technology in some form (Belanger, 2005).

One of Duke's objectives was to test the efficiency of these portable digital audio players

as tools for supporting study, managing the storage of files, recording lectures or field

notes, and for course content dissemination. Duke's first year experience indicates that

"although some data were gathered to support the value of recording lectures, the extent

to which having access to lecture recordings improves student performance, impacts class

attendance, or enhances students' course experiences remains unknown" (Belanger, 2005,

p. 6).

　　　According to Cebeci and Tekdal (2006), the value of a podcast as educational tool

is determined by its categorization as a learning object. Therefore, they can have

educational value if they are designed as a learning resource with sequence, scope, and

structure; in other words, if it embodies a learning objective to suit learner needs.

Furthermore, its use has been reported to have improved student satisfaction level in

various ways, and thus, naturally to have influenced their retention at the institution

(Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales &

Moses, 2006; Ractham & Zhang, 2006; Reynolds, 2005). In addition, the ease with

which podcasts or coursecasts can be created and distributed, as well as the flexibility

they offer users to download material whenever convenient, seems to make the use of

MP3 players a technology that resonates with students' lifestyles and the fluid way in

which they seek to learn (Rainie & Madden, 2005; Stone, 2006). Other benefits

reportedly associated with the use of podcasts in academia suggest that podcasts can be

useful to combat negative cognitive and emotional responses in students who might feel

anxious or find themselves in stressful situations, as they help them to focus more on

content, thus bolstering their self-efficacy (Nash, 2006). As a result of these findings,

Nash (2006) suggested further research to study how podcasts can help alleviate the

isolation and performance anxiety that students face in other academic situations.

Ractham and Zhang (2006) provide an overview of the technology and outline its

potential contributions to academia, as well as opportunities for further research. In their

article, they summarize how podcasting leads to greater collaboration among the

stakeholders involved in the activity, thus serving as a tool for increased social

participation and knowledge management. In line with its potential contributions to

academia, Ractham and Zhang (2006), suggest that research in podcasting should focus

on exploring, among other aspects, its potential use to improve a student's class performance.

Morales and Moses (2006); and Molina and the 2006 EDUCAUSE Evolving Technologies Committee (2006), indicated that the use of podcasts in a pedagogical setting can be classified in terms of how it affects lecturing, tutoring, and remediation. In explaining why the technology can become an important educational tool, these researchers focus on Gardner's Multiple Intelligences, and note how podcasts could be beneficial to auditory and visual learners, and particularly to auditory learners, who may retain up to 90% of the information they receive orally. Furthermore, they also indicate how podcasts are believed to improve interaction among the members of the class, which proves valuable to higher education. Among the limitations, Morales and Moses (2006) warn educators that podcasts need to be updated frequently. They also discuss how podcasts are not meant to replace lectures, but add to them instead.

Bell, Cockburn, Wingkvist, and Green (2007), believe that one of the underutilized strengths of podcasts is precisely their functionality to contribute to class lectures. In their research study, the authors evaluated the use of podcasting as a supplement in two computer science freshman classes with 150 and 250, each, at the University of Canterbury in New Zeland. Rather than record the entirety of the lecture, their intention was to release weekly podcasts with additional information such as tips for the next session, reminders on assignment deadlines, discussion about current topics, etc. On second thought—and without telling the students—they also included three fully-recorded lectures. Results of their experiment indicated that although it is not a substitute

for a class lecture, podcasts have the potential to be good educational tools. In fact, according to Bell et al., several students requested to have all lectures for the course available for download, if possible. Interestingly, only about 34% of the students returned surveys, but out of those students, 66% had downloaded material.

The authors concluded that only those who probably needed additional help with the class became interested, thus recognizing the value of this tool. Although Bell et al. did not ask why students who downloaded the podcasts found value in doing so, they suspect that it could have been because they were high-achievers, aural learners, international students, had missed class, etc. It is also worth noticing how some of these students seemed to benefit from having a podcast of the lecture available because they did not skip its download, even if it added nothing new to the lecture.

Edirisingha, Rizzi, Nie, and Rothwell (2007), proposed a graphical model to illustrate how podcasting helps student learning (see Figure 4 used with permission, Appendix B).
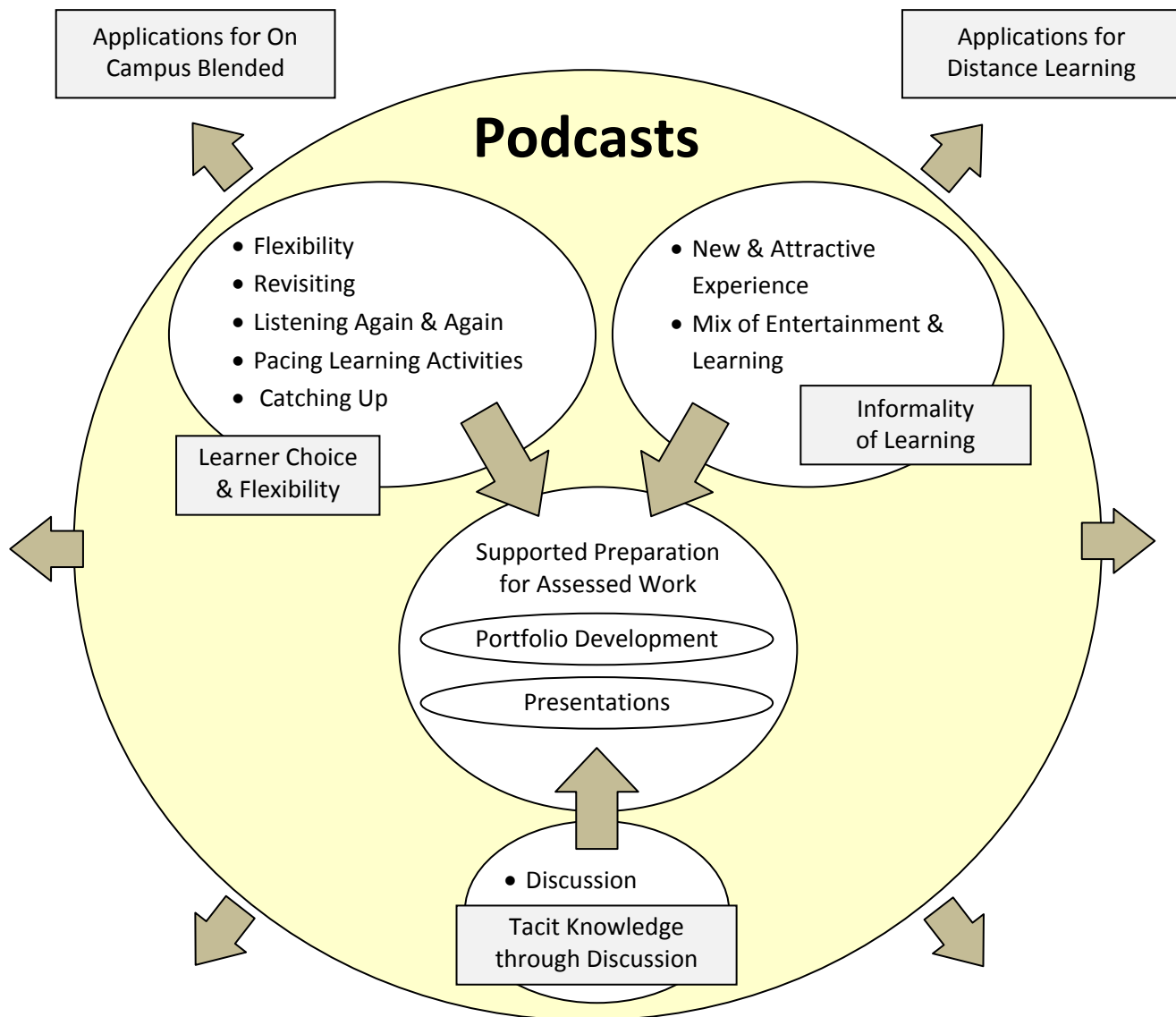
Figure 4. Podcasts' Features in Facilitating Learning (Edirisingha, et al., 2007, p. 11). Copyright 2007. Reproduced with permission of the authors.

The model introduces three key areas that are responsible for that support, which

are: learner choice and flexibility, accessing tacit knowledge of peers though discussions,

and informal way of learning. Learner choice and flexibility is an important factor when professors use podcasts for distance education courses, but it is also important for students on campus. Edirisingha et al. (2007) cited the flexible components used by Collins and Moonen, which are:

- "Time: tempo or pace of studying

- Content: learning material

- Instructional approach and resources: learning resources, modality, origin

- Delivery and logistics: time, place, methods, technology and delivery channel" (Edirisingha, et al., 2007, p. 12)

The second component, accessing tacit knowledge of peers though discussions, refers to the advantage that podcasts bring to the students by allowing them to gain access of tacit knowledge from their peers and senior students. Tacit knowledge is the knowledge based on the experiences and actions of the person, "on the job." Tacit knowledge differs from explicit knowledge in the sense that explicit knowledge is "communicated in symbolic form or language" (Edirisingha, et al., 2007, p. 12).

The last factor, informal learning, refers to the fact that new mobile devices used for teaching (like MP3 players and podcasts) allow users to expand their learning from a formal venue (the classroom) into a continuum way, where learning takes place at any time or place. Furthermore, informal learning also refers to the idea that new technologies are seen by the students as a combination of entertainment and learning, thus motivating their attention, curiosity, and concentration in the subject matter (Edirisingha, et al., 2007).

Beheler (2007) indicates that the lack of research in the area of podcasting and, more concretely, the lack of best practices available, make it difficult to employ this tool efficiently in higher education. Her study used a qualitative Delphi technique to draw consensus on best practices with the help of 45 podcast education experts. Findings showed that podcasts can be effective to address the students' need for constructing their own learning as well as to enact positive social change. In fact, results from the study indicate that podcasting is a great tool for introducing and reviewing materials, to demonstrate real world situations, and also as a way of providing learning support to blind, deaf, or underserved students. Among the notable observations of the experts involved in the study, there are several who underscore the importance of podcasting in helping international students with English language issues. The author's conclusions suggest that podcast technology is, and will increasingly become, a main tool to assist students with their learning. Beheler also urges researchers to continue developing a podcasting body of knowledge, especially with respect to specific populations of students.

In line with Beheler's (2007) recommendations, Brittain, Glowacki, Ittersum, and Johnson (2006) focused on one of those specific student populations—dental students. Their research, a case study conducted among 105 first-year students at the University of Michigan in 2004, found that making lectures available on a Web site was perceived by these students as incredibly helpful. Interestingly, the students were the ones who requested the podcasts due to their own feelings of anxiety regarding the course. One of the main reasons why students requested the podcasts was their familiarity with MP3

players, including their capabilities to reproduce coursecasts. One of the findings of the

pilot study showed evidence that students preferred the audio-only format as opposed to

the video of the lecture, possibly because it was more mobile-friendly. In their

conclusions, Brittain et al. (2006), particularly underscored the importance of involving

the students (the client) in developing any instructional design since, as consumers of the

final product, they are the best judges of what works for them.

Nash (2006) explored a different aspect of podcasts and learning when she

researched their potential to reduce performance anxiety. Her literature review surveyed

the work of others who had tried to understand the effect of intrusive thoughts in distance

learning environments. After identifying the pertinent research, she offered podcast-

focused solutions to diminish the effect of intrusive thoughts. Mostly, her conclusions

suggest that lecture anxiety can be alleviated with the use of podcasts, not only because

they can accommodate different learning styles, but also because the technology can act

as a self-regulatory tool to help students overcome intrusive thoughts that can cause them

stress. Intrusive thoughts—which are defined as distractions that interfere with

learning—usually spark feelings of anxiety and worry that affect performance. By

allowing students to listen to a podcast, students maintain a steady focus which can

bolster their feeling of self-efficacy and reduce their anxiety. In addition to her podcast

suggestions to the findings unearthed through her review of the literature, she also

conducted preliminary research among 85 military students enrolled in a distance course

and under stressful conditions. Her findings indicate that audio content positively held

the students' focus and helped them to relax, which helped them to focus more on the

academic content. Although the circumstances that impacted students in this particular study are very specific, it is not difficult to assume that the anxiety experienced by international students as a result of their language deficiency similarly affects their ability to concentrate and participate in class, as suggested by Lee & Rice (2007), Yeh (2003), Yildiz and Belchemeyer (2003), and Zhao (2006).

Although the levels of anxiety are probably somewhat different from those in Nash's (2006) study, Wolff's (2006) also focused on exploring how podcasts could reduce language anxiety for international students. The study was conducted among an unreported number of students enrolled in two social work courses at the University of Southern California in Los Angeles. In addition to detailing the making of the podcasts, Wolff's research also documents the students' evaluation of the effort. The findings clearly indicate that international students were the first to benefit from these podcasts because the technology allowed them to hear lectures repeatedly. Nevertheless, in making the podcasts available to everyone in the two courses, Wolff found that regardless of the origin of students, they all declared that having the chance to hear lectures again was invaluable. Overall, Wolff found that students used the podcasts for review purposes, but for international students the podcasts became—what they described as—a lifesaver, which could explain why international students made more frequent use of the lecture downloads.

Wolff (2006) does not reveal whether academic performance was impacted by the support offered by the podcasts although it seems to be an easy speculation to think that they helped. However, Stepp-Greany (2002) relied on self-reported perceptions to

determine which technology tools actually helped them to improve their foreign language experiences. The author employed a survey data approach among 358 students enrolled in 16 sections of first-semester Spanish courses and four sections of second-semester Spanish. The survey asked students to evaluate the role of the different types of technology used in the courses. Although podcasts were not specifically addressed, her findings attest to the self-perceived improvement in reading comprehension when using a computer-mediated program. The author also found that a computer-mediated program that includes a listening lab was perceived by students as beneficial to their listening and reading skills and thus, to their overall perception of the course. One of the most important conclusions of Stepp-Greany's research (2002) is that educators must have a specific role in technology-enhanced learning environments for the technology to be truly effective, which mirrors the beliefs of other researchers such as the vice chancellor for IT of the University of Lyon, who has noted that the educator's role has clearly changed from content dispenser to knowledge coach.

This change in approach motivates passive students to become interactive co-constructors of meaning and knowledge (IDG Global Solutions Report, 2006). Interestingly, engaged learning is highly dependent on comprehension, which, according to Lee and Chang (2005), is much affected by the anxiety that students may bring to the classroom. Nevertheless, they believe that technology might help alleviate that anxiety, and thus, in their opinion, educators should research and examine how to effectively use technology in their classrooms for that purpose. In fact, they consider anxiety so

damaging, that until the factors causing it are identified and addressed, no meaningful learning can occur.

Abdous et al. (2009) also conducted a study to explore the use of podcasting in foreign language classes, and concluded that students report academic benefits when they used them. They also note how podcasts "enable students to review lectures, to expand their vocabulary, and to build oral and aural skills" (p. 77), which are essential for learning a language. Their study was conducted as a post-test design among 113 students in eight language classes. Participants completed a survey self-reporting their experience using podcasts. The findings concluded that podcasts were effective as "a study tool which facilitates the completion and evaluation of assignments in foreign language classes" by allowing them "to improve their language skills, as well as for improving their knowledge of vocabulary" (p. 88).

Other authors such as Elliot et al. (2009), Glogoff (2009), Ormond (2009), and Scutter et al. (2010) conducted similar studies that yielded similar conclusions favorable to the use of podcasts in educational settings. Among the noteworthy conclusions, Elliot et al. (2010) found that students use podcasts to review rather than as a replacement for attending lectures, and also noted that it helped them to clarify information when professors speak too fast in class. Similarly, Gogloff (2009) found no problems with attendance, and instead found podcasts to be useful to help students with language difficulties and learning disabilities. In his observations, he also found that students find the podcasts equally useful in all subject areas, class sizes, and teaching styles, mostly because it helps them to pay attention rather than take notes frantically. Ormond (2009),

also found them useful for slow readers as well as slow writers, who have difficulty taking notes fast enough, and especially for international students. Interestingly, he also noted that podcasting helps professors to speak more clearly and to "gather your thoughts and present them in an orderly fashion" (p. 234). Finally, Scutter et al. (2010), conclude that in addition to supporting learning by allowing students to review lectures and retain information better, they also increase their language proficiency and help students develop good auditory skills that include "selecting and interpreting information from auditory clues" (p. 3).

Measuring Oral Comprehension and Verbal Fluency

Self-Reported Fluency of English Scale (SRFES)

Throughout the literature, it became evident that students' self-perceived proficiency became the reality that determined their levels of adjustment and overall feelings of anxiety (Badur, 2003; Lee & Rice, 2007; Yeh, 2003; Yildiz & Belchemeyer, 2003). The SRFES (see Appendixes C, D, & E) is a simple, easy to use tool that has been shown effectively measure international students' self-perceived oral English competency. Two studies featuring the use of the SRFES ensue. The findings in both of them reveal that oral language fluency acts as a mediating variable in the levels of acculturative stress in international students. In their conclusion, authors of both studies suggest that because language fluency affects students' acculturation, any programs that help students to improve their self-perceived language fluency would also help them to reduce their acculturative stress. Consequently, they recommend that it is important for

educators to make available programs to help international students to improve their self-perceived oral fluency.

Dao, Lee, and Chang (2007) used the Self-Reported Fluency of English Scale (SRFES) to assess the perceived English fluency of 112 international students from Taiwan enrolled in a graduate program at a large university in the southern United States. In addition to the SRFES, researchers also used the Social Support Questionnaire-Short Form (SSQSR), Suinn-Lew Asian Self-Identity Acculturation Scale (SL-Asia), and the Center for Epidemiologic Studies Depression Scale (CES-D). The study used Ordinary least Squares to explore the possible relationship between acculturation, perceived English fluency, social support, and depression. Their findings confirmed that language barriers, academic difficulties, alienation, and loneliness, among other factors, affected the acculturation levels of the students. With regards to language proficiency, the authors cite that the inability of some international students to communicate creates misunderstandings and makes students experience difficulties with classes, lessons, and other class activities. Their analysis of data showed that there was a "significant association between acculturation level and perceived English fluency, and perceived English fluency and depression" (p. 292). Of more importance, however, is that perceived English fluency considerably reduced the strength of the relation between depression and acculturation. Consequently, the students' perception regarding their own levels of English proficiency affects their level of depression, thus functioning as a mediator that can help to predict depression.

Similarly, Yeh and Inose (2003) explored acculturative stressors of 359 international students by looking at social connectedness, social support satisfaction, reported English fluency, as well as gender and age. The findings of their correlation study indicate that all those factors were, in fact, predictors of acculturative stress, but that the levels experienced varied depending on the country origin of the international students. Europeans experienced lower levels of stress than Asians, African or Latin/Central Americans. The regression model used by the authors showed that students' self-perceived lack of English language skills was particularly predictive of stress ($p < 0.001$) because it was thought to hinder the students' interactions with one another and reinforce their feelings of isolation. The authors suggested that because students from Asia, Africa and Latin/Central America may have experienced higher levels of racism and discrimination, their self-perceived lack of English proficiency might enhance their feelings of marginality even more. Regression results also showed that social connectedness and social support network satisfaction were predictive of acculturative stress ($p < 0.001$), but that age and gender were not. Overall, the regression model accounted for 34% of the variance in acculturation stress. To measure the reported English fluency, Yeh and Inose used the Self-Reported Fluency of English Scale (SRFES), and to measure the social connectedness and support, they used the Acculturative stress Scale for International Students, the Social Connectedness Scale, and the Social Support Questionnaire-Short Form.

Measuring Anxiety, Marginality, and Isolation

Cultural Adjustment Difficulties Checklist (CADC)

Throughout the review of the literature, it became clear that any kind of anxiety debilitates students and negatively affects their academic performance (Jiao & Onwuegbuzie, 2002). It also became clear that in the case of international students, language anxiety further adds to their performance anxiety, mostly because the lack of English language oral skills often hinders their ability to acculturate to their new environment (Jiao & Onwuegbuzie, 2002). This inadequacy to communicate causes them to feel not only anxious, but also marginalized and isolated from the group, especially when they cannot perform effectively in class (Badur, 2003; Goshi, 2005; Trice, 2007). The CADC (see Appendixes F, G, & H) measures acculturative distress, which refers to the general stress factors involved in adapting, or being exposed to, another culture, and intercultural competence, which measures the specific factors that help or hinder people to deal with cultural problems. Five empirical studies that used the CADC in their design ensue.

Students who are more acculturated show lower levels of anxiety and marginality. Wilton and Constantine (2003), for example, found that communicatively expressive cultures, such as the Latin one, may have more trouble acculturating, mostly due to language deficiencies, which make this population more susceptible to psychological distress. Yeh (2003) also focused on the mental health implications of acculturative anxiety. In the same vein of Wilton and Constantine (2003), Yeh's study found that oral language proficiency helped students to reduce conflict, which is indicative of mentally

healthier individuals.   Similarly, Rahman and Rollock (2004) found that acculturation scores strongly predict depression in international students. Nevertheless, they could not find that language usage predicted level of depression for these students. Mirroring Wilton and Constantine's (2003) findings, Torres and Rollock (2004) found that Hispanics with low acculturation levels experienced higher stress levels and psychological problems. Finally, Kuo and Roysircar (2004) found that although age of arrival, length of stay, social class, and language ability determined a student's level of acculturation, lack of language ability translates into a greater risk. As Yeh (2003) indicated in her conclusions, international students are "expected to grow in school psychologically as well as academically" (p. 44), which means that educators must be familiar with the factors that cause these students stress and hinder their acculturation.

As mentioned above, Wilton and Constantine (2003) studied the cultural adjustment difficulties and psychological anguish problems of Asian and Latin American students in the United States. The Cultural Adjustment Difficulties Checklist (CADC) and the General Psychological Distress Checklist (GPDC) were used with 190 Asian and Latin American students attending an American university in the northeast part of the country. Correlation results indicated that Latin American students showed higher levels of psychological distress than Asian students, and that there was a significant correlation in both groups between higher levels of psychological distress and intercultural competence and acculturative distress. More concretely, an examination of means revealed mean and standard deviation values of 44.48 and 26.36, respectively, for Latin American students and 35.77 and 21.57, respectively, for Asian students.   Regression

analysis showed higher psychological distress in Latin American students than Asian students. Overall, regression analyses accounted for 31% of the variance in distress scores. Their conclusions hint to the role of language as mediating emotional expressiveness, which was thought to be correlated to distress.

In an effort to look at acculturation more closely, Yeh (2003) investigated the relationship between age, acculturation, and cultural adjustment of Chinese, Japanese, and Korean immigrant students. Yeh administered three instruments, the Cultural Adjustment Difficulties Checklist (CADC), the Suinn-Lew Asian American Self-Identity Acculturation Scale (SL-ASIA), and the Symptom Checklist-90-Revised (SCL-90-R) to 319 Asian students enrolled in different junior high and high schools on the East coast. Stepwise regression analysis using the variables showed considerable predictive significance, and accounted for 34% of all variance in acculturation stress. Results indicated that age, as well as language, were predictors of emotional distress, but that gender was not. Yeh concludes that language proficiency helps students to have more comfortable interactions, thus reducing their levels of stress. Ultimately, Yeh suggests that it is important to be aware of the cultural adjustment process in order to prevent mental health concerns.

Unlike Yeh (2003), Rahman and Rollock (2004) did not find that language usage predicted depression in international students. Nevertheless, acculturation levels did, which is confusing since self-perceived proficiency is a factor in acculturation. More concretely, Rahman and Rollock examined the relationship between levels of depression in international students and the symptoms that seem to cause them, such as intracultural

behavior, social efficacy, perceived prejudice, and lower self-reported competence in

various situations. Their study focused on 199 Asian students from India, Pakistan, and

Bangladesh attending a large American university in the midwest. Researchers used the

Cultural Adjustment Difficulties Checklist (CADC), as well as two other instruments, the

Minority-Majority Relations Survey (MMRS) and the Center for Epidemiological

Studies-Depression Scale (CES-D). As mentioned earlier, their findings showed a

positive correlation between acculturation and the prediction of depression signs, but not

between social customs and language usage. Ultimately, however, the authors conclude

that self-perception of individual skills and needs is important and meaningful, but not

always the same for everyone. Therefore, if a student lacks a key skill—whether it be

language or anything else needed to negotiate their way in the new culture—skill

acquisition might be essential to avoid depression.

Torres and Rollock (2004) looked at how Hispanic immigrants who had recently

immigrated to the United States coped with acculturation issues. The authors recruited

96 Hispanic volunteers from different countries through churches and community

centers, as well as from local universities in a Midwestern city. Participants were asked

to complete three instruments: the Cultural Adjustment Difficulties Checklist (CADC),

the Cultural Life Style Inventory (CLSI), and the Behavioral Attributes of Psychosocial

Competence Form A Revised (BAPC-AR) which were then analyzed through

hierarchical multiple regressions. Findings indicate that the best predictor of

acculturative distress among Hispanics was intercultural competence, mostly self-

assessed through their intercultural interactions. More concretely, the authors conducted

hierarchical multiple regressions after multivariate analysis, which showed that

"intercultural competence accounted for variance above and beyond that already

explained by other variables in predicting acculturative stress" (p. 162). Additionally,

the authors identified that intercultural competence scores (β= .48, $p < .001$) significantly

predicted acculturative stress. Therefore, when participants perceived that they possessed

the skills to successfully manage intercultural problems, they saw themselves as

interculturally competent, which was negatively related to levels of distress and anxiety.

In their conclusions, Torres and Rollock said that the goal of educators and counselors

aiming to help with the acculturation of Hispanics should be to reduce levels of distress,

which is broader than to focus on other areas such as language and length of stay. This

would work better because the source of distress might vary depending on the individual.

Kuo and Roysircar (2004), however, found differing results. More concretely,

they found that English language reading skill was a key determinant of acculturation

precisely because such competency greatly reduced acculturative stress. Their study

correlated the relationship between English proficiency and socioeconomic status as

predictors of acculturation of Chinese immigrants. The study took place with 506 early

and late Chinese immigrant adolescents living in Canada. Two instruments were used in

the study: the Cultural Adjustment Difficulties Checklist (CADC), and the Minority-

Majority Relations Survey (MMRS). Findings indicated that English reading ability, the

length of stay, as well as the age of arrival to the new country, were significant indicators

of acculturation levels, but that a strong command of English increases the student's

ability to engage in cross-cultural interactions with the majority group, thus reducing the

potential for stressful conflict. Among the authors' suggestions are the creation of programs and services that improve language self-efficacy.

Foreign Language Classroom Anxiety Scale (FLCAS)

According to Jay (2003) oral comprehension is defined as the way in which people make sense of language presented in written, spoken or signed form. It is different from language acquisition in that acquisition is more concerned with how, and when, language is learned. Although students enrolled in colleges and universities in the United States are required to have a level of English proficiency, they are seldom tested for oral proficiency. As Olivas and Li (2007) observed, it is this lack of oral skills that constitute significant sources of stress because students have difficulties fitting socially and performing academically.

Throughout the review of the literature, it became evident that class performance anxiety could hinder the performance and satisfaction of international students. The FLCAS (see Appendixes I, J, K, & L) emerged as the most widely used instrument to measure the three situation-specific anxieties found within the classroom: Communication Apprehention, Testing Anxiety, and Fear of Negative Evaluation. More importantly, the literature revealed that the FLCAS measures anxiety experienced in speaking situations. Overall, findings reveal that anxiety seems to affect academic competence. The studies also suggest that anxiety tends to increase when self-perception about language competence is low. The importance of creating a low anxiety environment to build confidence and favorable communication experiences that

encourage international students to actively participate in class, thus helping them acculturate is consistently established in the literature.

Rodríguez and Abreu (2003) used the FLCAS in order to determine its validity and reliability in two foreign languages. The authors examined if there was a difference in the level of anxiety of students learning English versus students learning French as a foreign language. This correlational study administered the FLCAS among 110 students from two major universities in Venezuela. According to the authors, the results are in line with the conclusions of other researchers such as Saito, Horwitz, and Garza (1999), who found no statistical difference between the overall anxiety levels of English and French students. In addition to the findings, the authors concluded that the psychometric properties of the FLCAS showed a level of high reliability and moderate construct validity, thus showing that the instrument can be used empirically.

Yashima (2002) studied relations between learning and communication among Asian students studying English as a foreign language. To do this, he used the Willingness to Communicate (WTC) model, which incorporates the communication apprehension section of the FLCAS in order to measure the anxiety levels associated with speaking a foreign language. The WTC explores a variety of aspects, including Intercultural Friendship Orientation, Motivational Intensity, Desire to Learn English, Approach-Avoidance Tendency, Interest in International Vocation/Activities, Interest in Foreign Affairs, Willingness to Communicate in English, Communication Anxiety in English, and Perceived Communication Competence in English. Yashima used the WTC to explore correlations among learning and communication variables, and he

administered it among 297 Japanese university students (212 males and 85 females) from Osaka. The most significant results revealed that there was a significant relationship between motivation and confidence, and that higher levels of confidence were correlated to lower levels of anxiety [$p < 0.1$; x^2 (49) = 62.63, n.s.; GFI (Goodness of Fit Index) = 0.97; AGFI (Adjusted Goodness of Fit Index) = 0.95; RMSEA (Root Mean Square Error of Approximation) = 0.031]. Yashima's conclusions suggest that reduction of language anxiety builds confidence. Additionally, the results also seem to hint that programs to help build the student's self-perceived confidence are more effective in reducing anxiety than those that help them achieve higher language proficiency.

Similarly, Von Wörde (2003) investigated factors perceived by students to increase and reduce their anxiety while learning a foreign language. The study used a qualitative interview method, as well as the FLCAS among 15 students in a college in Virginia. The analysis of the data indicates that there was a negative correlation between anxiety, their final grade, and the learners' motivation. Furthermore, the study results identified speaking, listening activities, and pedagogical practices of the professors as the most anxiety-generating factors, while a friendly, laid-back classroom environment and activities were identified as factors that reduce the anxiety levels of the students. Consequently, the author suggests that in order to increase student retention and motivation, educators must address anxiety early. Among the very specific suggestions included in Von Wörde's discussion is the one advising professors to give directions and speak slower to clarify points.

Aida (1994) also found that anxiety could impact academic performance. The author looked at the relationship of anxiety and achievement in American university students learning Japanese. The study took place among 96 second-semester students of the University of Texas at Austin. Aida used the FLCAS and found a consistency with other research findings that attribute high level of anxiety to the fear of negative evaluation associated with speaking in class. Moreover, the author's factor analysis showed that anxiety often acts as a filter that hinders the development of high proficiency, thus negatively affecting academic competency ($r = -.38$, $p < .01$). Aida concludes that it is important for educators to take advantage of the information that they can collect through the administration of the FLCAS since it may identify whether students suffer a persistent anxiety trait or a situational trait that can be alleviated through supportive programming.

Onwuegbuzie, Bailey, and Daley (2000) conducted a validation of three anxiety scales: the Input Anxiety Scale (IAS), the Processing Anxiety Scale (PAS), and the Output Anxiety Scale (OAS). To examine the psychometric properties of the scales, they used, among others, the FLCAS to measure foreign language anxiety in a global context, with which it correlated significantly. Findings report all of the scales to possess adequate psychometric characteristics as well as evident structural validity established through exploratory factor analysis, and criterion-related validity. Concurrent validity was established between the scores of the three scales and the Foreign Language Classroom Anxiety Scale. In addition to the validation aspect of the study, their research also examined the possible correlation between anxiety and foreign language

achievement throughout the learning stages of input, processing, and output. In order to do this, they administered the FLCAS to 205 university students. Their findings indicated that anxiety played the most evident role in all of the three stages. They also found through three exploratory and confirmatory factor analyses that self-perception proved to be a good predictor of foreign language anxiety, and concluded that if not addressed, it could negatively affect academic competence. Furthermore, a multiple regression analysis on the IAS, OAS, and PAS showed that all three significantly predicted foreign language anxiety as measured by the FLCAS. Also, they accounted for 69.9% of the variance in global anxiety.

Along the same lines, Cheng, Horwitz, and Schallert (1999), explored the relationship between classroom anxiety and language, but these authors also decided to investigate any possible differences between writing and speaking the foreign language. The study was conducted among 433 Taiwanese students who were taking English writing and English speaking classes. Findings indicated that although the two are related, they are independent constructs. Moreover, the study showed that foreign language classroom anxiety is a generalized type of anxiety featuring strong speaking anxiety, as opposed to written language writing anxiety which is a language-skills-specific anxiety. Low self-confidence affects both types of anxieties. To conduct their study, the researchers relied on the FLCAS and the second language version of the Writing Apprehension Test. The FLCAS was evidently strongly suited to measure spoken language anxiety. Overall, the study also showed that individual differences with respect to attitudes, emotions, and expectations about language skills may increase

anxiety levels in students. Similarly to the other studies, these authors found that low self-confidence increases anxiety, and thus suggest that educators employ programs and approaches that student's self-perception with respect to their language use.

Although very similar in their approach, Casado and Dereshiwsky (2001) wanted to know if anxiety decreased after one semester. Therefore, they explored self-reported classroom anxiety among 114 (first semester) and 169 (second semester) foreign language students in a university setting. The authors used the FLCAS to identify and compare self-reported anxiety levels between first and second semester students learning a foreign language. Although the authors expected to find lower levels of anxiety in second semester students, that was not the case. In Group One high anxiety was found in seven questions and in Group Two it was found in eleven. More concretely, perceptions between the two groups in five of those questions specifically related to language classroom anxiety were statistically significant at the 0.05 level. Overall, descriptive statistics for these five questions showed that the mean scores were lower for second semester students than for first semester ones, thus hinting to lower self-perceived confidence. There was an absence of relevant significance in the other 28 questions, yet even in these 28 questions, the Second Group had slightly higher anxiety scores. According to the authors, MANOVA results were marginally significant (*p*-value of 0.1064) but were considered to hint to individual between-group differences that could be significant by themselves. Therefore, the authors concluded that the results reflected the anxiety not only occurs when the class is taught completely in the foreign language, but that it may, in fact, get worse in subsequent semesters. It is assumed that similar results

to those found by these authors could be found among to international students enrolled in American universities.

Goshi's (2005) findings closely mirrored those of Yashima (2002), Bailey et al. (2000), and Cheng et al. (1999) when the author found that lower self-confidence increased language anxiety. More concretely, the author explored the relationship between the students' self-perception of English knowledge and their level of foreign language anxiety in the classroom. Using the FLCAS among 73 freshmen in Japan, the author concluded that when students have negative beliefs about their abilities with the language, their anxiety levels rise to higher levels with debilitating consequences, since it causes students to fail or avoid the learning, and create confusion or excessive effort. Furthermore, the study cites research showing that anxious students underestimate their proficiency, and points out that educators should encourage clarification and repetition, especially in orally-oriented classes.

Finally, Oskovich (2006) tried to differentiate among the different types of anxiety by exploring the effects of diversity on the levels of foreign language classroom anxiety. The author, therefore, used the FLCAS to additionally examine whether language anxiety was distinct from other anxieties. Ex Post Facto and four, one-way, fixed effects ANOVAs were used to analyze the data, which did not show significant differences. More concretely, the Oskovich reports ANOVA scores for the FLCAS of Observed F Values, $F_{obs} = 2.23$, for the Communication Apprehension $F_{obs} = 1.59$, for the Testing Anxiety $F_{obs} = 1.92$, and for Fear of Negative Evaluation F_{obs}. The author, nevertheless, recognizes that his sample of 24 students may have been too small for any

true trends to emerge. Nevertheless, the author explains that regardless of the results, "there is a trend in the data that strongly suggests that differences exist" (p. 52), so he concludes that the number of years that students had been in the United States may have influenced the results as they may have had already developed some kind of classroom anxiety management approach to deal effectively with it.

Collection Measures for Podcasting Data

As became evident in the review of the literature, the use of podcasting in education is relatively new. Consequently, it was difficult to find empirical studies featuring the use of the technology regardless of its increasing popularity among educators at all levels. In addition to the seminal studies by Duke University and Stanford University mentioned earlier, other empirical studies explored podcasting use. Overall, these studies served as a guide for the use of podcasts in the design of this study.

As was explained earlier, Bell, Cockburn, Wingkvist and Green (2007) experimented with the use of podcasting as a supplemental learning tool with two university computer science courses with 150 and 250 students, each, at the University of Canterbury in New Zealand. The experiment consisted of providing the students with supplemental class materials at the end of each class, and also with three unannounced recorded lectures. The goal of the study was to see if students used the materials to review the class, as well as to gather insight information on the use and effectiveness of the tool. A survey collected the perceptions of the students and indicated that students who downloaded the podcasts believe they benefitted from the experience. Additionally,

the results from the survey indicated that students preferred short, 15-minute podcasts rather than longer 30-to-60-minute ones, especially if they presented materials that were not exciting, such as featuring the professor just reading from the textbook.

Instead of looking at the effectiveness of the use of podcasts alone, Frydenberg (2008) looked at the role of this technology in students' overall learning when the podcasts materials were created by the students using class lectures. The survey study used 54 business college students enrolled in an IT course in a business college. The class was divided into groups of two students, and each group was assigned to prepare a podcast for a particular lecture, after the lecture was given by the instructor. The author used the server Web logs to investigate the download traffic, as well as a survey in order to evaluate the role that the tool had in students' overall learning. Results indicated that students' perception was that the podcasts helped them with their learning, and that the podcasts had added value to the course. Furthermore, server logs indicated that students had downloaded the podcasts on a regular basis, mainly to clarify portions of the class they had missed. In his discussion, the author concluded that podcasts are effective tools in the construction of knowledge when the user is involved in its creation.

Edirisingha, et al. (2007) studied the use of podcasts as a way to impact student learning and study skills. They used qualitative data gathered through two focus groups of eight students, each, and personal interviews of six students. They also used an end-of-the-semester quantitative survey about the technology and its use among 35 undergraduate university students from the United Kingdom who were taking a course that was partially on-campus and partially online. Descriptive statistics were used to

gather the results from the study, which showed that students felt that the podcasts helped them to prepare better for the assignments in the course. Of particular interest to the students were podcasts' flexibility of use and convenience allowing them to rewind and listen to the information again, which helped them with their in-class note-taking.

As has been presented earlier, some researchers have cast their doubts as to the appropriateness of podcasts in education, mostly due to fear that students will stop coming to class. Tynan and Colbran (2006), therefore, decided to explore the way in which students used available podcasts by focusing on student expectations about podcasts. Their qualitative, mixed-methods case study surveyed 1,244 law students from the Law School at the University of New England, and also conducted online focus groups. Their findings indicated that 63.2% of the students rated the use of podcasts as very valuable, and 20.7% of the students indicated that they transcribed the podcasts to study. In their discussion, the authors concluded that the single, major advantage reported by students was the opportunity to replay course material, which they believe plays importantly in increasing retention in programs.

Taking the technology a step further, Shim, Shropshire, Park, Harris, and Campbell (2007) explored the use of podcasts versus Webcasts. According to the authors, there's not too much difference between the two, except for the fact that Webcasts "are closely related to real-time downloading and synchronous broadcasting" (p. 590), while podcasting is usually pre-recorded, which adds spatial flexibility for users. Additionally, the RSS capability of podcasts allows for more personalized service. Sharing these definitions with participants from the beginning, their study used logistic

regression analysis to compare student preferences between the two technologies with respect to learning. The authors used a quantitative approach that mixed the collection of historical data and surveys. The surveys were distributed among 183 students from two American universities who shared their insight about their perceived value for each of the delivery methods. Overall study results were inconclusive, but the authors suggest that this may be because a portion of the sample did not have much experience with podcasting. Nevertheless, when logistic regression analysis was performed with both the podcast user and Webcast user variables, results indicated that both Webcast and podcast students perceived podcasts to be a more useful tool than Webcasts when used to improve their learning in the classroom. In their discussion, the authors concluded that although inconclusive, the results addressed the importance of understanding students' perceptions and usage preferences about the technology before adopting podcasting within the classroom.

Summary

This chapter presented a comprehensive review of the literature regarding language deficiencies, anxiety, marginality and isolation, and podcasting, as well as a review of the needs and challenging experiences of international students. The chapter also reviewed a number of studies in more detail, which helped to identify possible instruments to be used in the study, more concretely, the Cultural Adjustment Difficulties Checklist (CADC), the Foreign Language Classroom Anxiety Scale (FLCAS), and the

Self-Reported Fluency of English Scale (SRFES), and other collection methods for

podcasting data.

Chapter 3

Methodology

Introduction

A pre-experimental research approach was proposed to explore the impact of available coursecasting in international students' perceptions of marginality and isolation, anxiety, and English proficiency and comprehension, through a one-group, pretest-posttest design. The review of the literature established that factors such as the lack of English language comprehension and proficiency are associated with higher levels of anxiety, as well as with feelings of marginalization and isolation in international students. It seems evident that these issues affect these students' academic performance, overall satisfaction with academic programs, and retention by American institutions, which puts at risk the United States' position at the helm of international education (Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares & Herron, 2006; Swanson, 2006; Van Nelson et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006). The review of the literature, however, also suggested that available coursecasts could constitute a viable intervention to decrease these students' levels of anxiety, and feelings of marginalization and isolation, by improving their language comprehension and proficiency in and outside the classroom (Beheler, 2007; Bell et al., 2007; Brittain et al., 2006; Calvalho et al., 2008;

Fietza, 2009; IDG Global Solutions, 2006; Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Nash, 2006; Ractham & Zhang, 2006; Reynolds, 2005; Scutter, 2010; Wolff, 2006).

Consequently, this chapter presents the methodology used to conduct the study, including the following sections: 1) the research goals and questions with its corresponding hypotheses, as well as a description of the sample and size; 2) a summarized description of the instruments and their psychometric parameters; 3) the research design, including the variables and paradigms framing the study; 4) procedure and data collection approaches; and 5) validity and reliability issues.

Research Goals

The main goal of this research study was to examine whether the availability of downloadable coursecasts affected international students' educational experiences by positively impacting their adjustment and retention. More specifically, the first goal was to determine whether available coursecasts impacted international students' oral language proficiency and overall content comprehension in the English language. A second goal was to determine whether available coursecasts impacted international students' perception of anxiety. Finally, a third goal was to determine whether available coursecasts impacted international students' perception of marginality and isolation. It was clear that the results not only would contribute to the literature by exploring more efficient ways of teaching with technology, but it would also provide practitioners with specific uses for podcasting that could positively benefit all kinds of students.

Research Questions

The following research questions guided the development of this research study:

1. What impact does the use of downloadable coursecasts have on international students' oral language proficiency and overall English comprehension as measured by the SRFES?

2. What impact does the use of downloadable coursecasts have on international students' feelings of anxiety as measured by the FLCAS and CADC?

3. What impact does the use to downloadable coursecasts have on international students' feelings of marginality and isolation as measured by the CADC?

Hypotheses

The following hypotheses emerged as a result from research question one:

$H1_0$: There is no significant change in international students' oral language proficiency and overall English comprehension as measured by the SRFES when they use downloadable coursecasts.

$H1_1$: There is a significant change in international students' oral language proficiency and overall English comprehension as measured by the SRFES when they use downloadable coursecasts.

The following hypotheses emerged as a result from research question two:

$H2_0$: There is no significant change in international students' feelings of anxiety as measured by the FLCAS and the CADC when they use downloadable coursecasts.

$H2_1$: There is significant change in international students' feelings of anxiety as measured by the FLCAS and the CADC when they use downloadable coursecasts.

The following hypotheses emerged as a result from research question three:

$H3_0$: There is no significant change in international students' feelings of marginality and isolation as measured by the CADC when they use downloadable coursecasts.

$H3_1$: There is a significant change in international students' feelings of marginality and isolation as measured by the CADC when they use downloadable coursecasts.

Sample Selection

Applied research is usually chosen when the main purpose of the research is to offer a practical solution that may improve the condition of the participants. The study followed purposive, non-probability sampling that was not only appropriate for social research, but also appropriate with regards to time constraints and costs (Alston & Bowles, 2003). In defining the target population, this study planned on purposive sampling based on the assumption that international freshmen students were the ones who would benefit the most from the program, and thus, the ones relevant to participate in the research. Nevertheless, program benefits would be potentially the same for all students.

With regards to sample size, the literature revealed a wide array of sizes in various studies, ranging from samples of under 40 students (Ladd & Ruby 1999; Lee & Rice, 2007) to those in the hundreds (Athos, 2005; Dozier, 2001; Hanassab, 2006), and

even some with more than 67,000 participants (Zhao, Kuh, & Carini, 2005). Since none

of these studies had been conducted in various courses or at various universities at the

same time, the literature was not helpful to define appropriate size. Therefore, it was

decided that a quota approach would ensure that the purposive sampling reflected the

overall target population of international students in the United States. According to the

Open Doors Report (2008), there are 236,342 undergraduate international students

attending American institutions of higher learning. This number amounts to 3.9% of all

students attending colleges and universities. In a class with an average of 20 students,

4% is roughly equivalent to one student. Since data was collected in Florida and

California, and these are two of the four leading hosts of international students in

America, it is estimated that there were at least four students per class. To ensure this,

classes with high number of international students were selected. Alston and Bowles

(2003) indicate that 30 to 100 participants would allow for appropriate statistical analysis,

especially if the sample is homogeneous. Since the study sampled freshmen, the level of

initial familiarity with the American system was similar for all participants regardless of

nationality or native language. Despite the fact that the sample in this study was not

random, the minimum size for permissible error at .05 that is followed for randomized

data was chosen as a guide (Alston & Bowles, 2003). Therefore, it was calculated that to

meet the minimum number of participants suggested by Alston and Bowles (2003), the

study would need to engage between 180 and 225 total students for a sample of 36 to 40

international students. In order to meet these requirements, three to five classes

averaging from 20 to 25 students each were selected from among three different

universities. Unfortunately, only students in two of these three universities ended up as part of the 53 total sample participants.

With regards to sampling issues, mortality posed a problem since the use of the program (coursecasting) was voluntary. As such, there were students who did not drop out of the study, and yet, were not necessarily exposed to the intervention because they did not choose to make use of the coursecasting option. This threat was measured by checking the number of downloads completed/attempted by each student in the course. Similarly, and due to the voluntary refusal to participate or continue with the program, the number of participants dwindled before completion of the semester. Attrition, therefore, became a problem, even if it was thought that participants' self-realization about the seemingly advantageous use of coursecasting would keep them interested in participating and using the coursecasts. The researcher continued to target and approach different institutions up until the beginning of data collection, but at the end only students in two institutions participated.

Instrumentation

The following instruments were administered at different times throughout the semester. Since international students were expected to have sufficient English language proficiency to attend an institution of higher learning in the United States, all of the instruments were administered in English. Any correlations with the findings of Wilton and Constantine (2003) and Rahman and Rollock (2004) became evident once the demographic data of the participants were analyzed.

Cultural Adjustment Difficulties Checklist (CADC)

The CADC (Sodowsky & Lai, 1997) is a self-report measure of "majority-minority conflict related interpersonal problems, alienation towards one's cultural reference group, and issues of self-efficacy in a White-dominant social context" (Sodowsky & Lai, 1997, p. 224). The CADC is a 59-item, 6-point Likert-type scale that measures two factors: Acculturative Distress (AD), consisting of 35 general and cultural stress items, and Intercultural Competence Concerns (ICC), consisting of 24 items measuring social, academic, career, and cultural competence. Acculturative Distress refers to anxiety reactions experienced by individuals who are transitioning to a new culture, while Intercultural Competence Concerns refers to the actual problems experienced by the individuals when relating to other people in the new culture. Since language anxiety was found to be a specific stressor throughout the review of the literature, an instrument that measured cultural stress while identifying specific factors was deemed highly appropriate. Furthermore, if the use of available coursecasts reduces international students' anxiety in any way, measuring the students' self-reported perception of the change was deemed valuable. Participants rate how accurately each statement applies to them.

Sodowsky and Lai (1997) reported internal consistency reliabilities for the full scale to be .92, and internal consistency reliability of the two sub-scales, CADC-AD and CADC-ICC, to be .90 and .88, respectively. The correlation coefficient between the two factors was .35. The two-factor (Acculturative Distress and Intercultural Competence) analysis between the two samples used by the researchers indicated Pearson correlations

of .92 for CADC-AD and .94 for CADC-ICC. According to Sodowsky and Lai (1997),

comparison with the Majority-Minority Relations Scale has demonstrated relatively

strong psychometric properties, including internal consistency, construct validity,

discriminant validity, and sample generalizibility.

According to Maestas (2000), exploratory factor analysis with oblique solutions

yielded two factors. Factor 1 (AD) accounted for 21% of the variance and factor 2 (ICC)

accounted for 8.4% of the variance. Together, these two factors accounted for 29.4% of

the variance. He also reported that a confirmatory factor analysis "yielded goodness-of-

fit and adjusted goodness-of-fit indexes of .85 and .82, respectively" (p. 121). Additional

structural equation models yielded significant path coefficients and t scores for multiple

variables. Young (2005) assessed content and face validity with a panel of judges, and

Marczynski (1996) noted that the similar latent factor loadings across the sample

populations used by Sodowsky and Lai demonstrate the construct validity of the CADC.

Torres and Rollock (2004) reported that although the CADC was originally

developed to be used with Asian samples, it has been successfully adapted and validated

for Hispanic populations by Orozco in 1995 and by Maestas in 2000. In Torres and

Rollock (2004), item reliability for the Spanish version of the CADC were reported at .86

for the CADC-AC and .83 for the CADC-ICC. Kwan and Sodowsky (1997) used 11

items to explore the identities of Chinese immigrants to the United States, and reported a

Chronbach's alpha .92, with the item-total correlations ranging between .34 and .64.

In trying to understand the relationship among length of stay in the U.S., cultural

adjustment difficulties, and distress in international students, Wilton and Constantine

(2003), used the instrument to measure cultural adjustment difficulties that may cause them anxiety and social alienation. In Wilton and Constantine (2003), internal consistency reliabilities were reported at .86 for the CADC-AC and .85 for the CADC-ICC. Yeh (2003) also used the CADC to explore the role that marginalization plays in the assimilation and cultural adjustment efforts of Asian youth.

Modified Foreign Language Classroom Anxiety Scale (FLCAS)

The Foreign Language Classroom Anxiety Scale (FLCAS) was designed to ask questions reflective of performance-related activities in a foreign language. This 33-item paper-and-pencil questionnaire developed by Horwitz et al. (1986) measures the potential sources of anxiety in foreign classrooms by testing situation-specific anxiety—Communication Apprehension (CA), Testing Anxiety (TA), and Fear of Negative Evaluation (FNE)—experienced by foreign language students in foreign language classes. Although the instrument was developed for use in foreign language classes, to an international student studying in the US the situation is analogous. Nothing in the instrument tests anything specific about the "learning" of the language, so the FLCAS does not test any specific content area, only anxiety in speaking a foreign language. English is as foreign to foreign students as a foreign language is to Americans. Therefore, it was not anticipated that adapting this instrument to be used in the study would cause any problems, and indeed, it did not. Nevertheless, the scale was adapted to this study, with permission from the author (See Appendix K), by substituting "foreign language class" for "class" and "foreign language" for "English", whenever it was necessary. Question #26 in the original FLCAS was eliminated because it did not apply.

Horwitz (1986), originally reported the scale's internal consistency to be .93 (Chronbach's alpha coefficient) and its test-retest reliability over 8 weeks to be $r = .83$, $p = .001$, and $n = 78$, noting that significant tests were two tailed. With regards to construct validity, Horwitz (1986) cites the correlation of the FLCAS with the Trait scale of the State-Trait Anxiety Inventory to be $r = .29$, $p = .002$, and $n = 108$; with the Personal Report Communication Apprehension to be $r = .28$, $p = .063$, and $n = 44$; with the Fear of Negative Evaluation Scale to be $r = .36$, $p = .007$, and $n = 56$; with the Test Anxiety Scale to be $r = .53$, $p = .001$, and $n = 60$. Additionally, Kim (2005) used the FLCAS to evaluate the reliability and validity of the Foreign Language Listening Anxiety Scale, and found that the construct validity when correlated with the FLCAS was $r = .70$, $p = .000$, and $n = 310$.

Aida (1994) also confirmed the validity and reliability of the FLCAS in a study exploring language anxiety relating to Japanese learning. The study yielded an internal consistency score of .94 using Chronbach's alpha coefficient. The results suggested that the FLCAS was reliable. Furthermore, Aida's (1994) results seemed to indicate that the FLCAS was especially reliable to measure anxiety related to speaking situations. Kebbe (2005), reports that Horwitz et al. have showed satisfactory construct validity, internal consistency, and reliability of the FLCAS by subjecting the scale to multiple studies. Further, Kebbe (2005) mentions how throughout these studies, the epistemological soundness of the original model has not suffered any serious challenge.

Goshi (2005) used this instrument to explore the relationship between language anxiety and learning. He concludes that anxiety about the language debilitates students'

learning ability. Oskovich (2006) used the instrument to investigate the role of cultural diversity in international students' language anxiety, and Yashima (2002) used it as a starting point to explore willingness to communicate and its relationship to learning in another language.

Self Reported Fluency of English Scale (SRFES)

The Self Reported Fluency of English Scale (SRFES) has been used to assess individuals' perception of their English fluency through three questions to be answered on a 5-point Likert scale. According to Yeh and Inose (2003), the method has been reported as effective in measuring fluency of English language, with a Chronbach's alpha of .78. In examining acculturation, anxiety, social support, and perceived English fluency, Dao, Lee, and Chan (2007), found the SRFES to have good internal consistency, with a Chronbach's alpha of .81. Nevertheless, no additional reports on the psychometric information of the SRFES were found. According to Ross (1998), self assessments normally yield strong concurrent validity with criterion variables. Similarly, Marian, Blumenfeld, and Kaushanskaya (2007), report that there is extensive research suggesting that self reported scores in language ability are indicative of actual ability. Furthermore, Marian et al. (2007) indicate that such research reveals that foreign language speakers are able to assess their language proficiency in ways that accurately and consistently reflect actual behaviors.

Research Design

The research design selected for this study was a pre-experimental research approach with the quantitative paradigm as its primary methodology. A one-group, pretest-posttest design was proposed because this type of design is appropriate when evaluating the influence of a variable on a specific group, such as international students, in a naturalistic setting. Furthermore, a pre-experimental study was appropriate due to the lack of structured studies that used podcasting as a tool to explore coursecasting.

The usefulness of this research design was determined by the lack of influence that the subjects have during the history of the collection of data. This pre-experimental study answered the research questions brought forth earlier by pre-and-post testing levels of anxiety and perceptions of marginalization and isolation prior to making coursecasts available as a treatment. This design did not provide proof of cause and effect, but it was certainly useful to identify and measure change. Therefore, a pre-and-post assessment of English language comprehension and proficiency was very helpful to evaluate whether the treatment mitigated those feelings and perceptions of marginalization, isolation, and anxiety. The study also contributed to develop a body of literature by establishing a baseline with its findings, especially since pre-experimental designs can document changes in the group that receives the program or treatment.

Under this approach, the dependent variables of the study were language comprehension and oral proficiency, marginalization and isolation, and anxiety in international students, as measured by the different questionnaires and assessments mentioned earlier. Other demographic data was also collected and interpreted. The

treatment was the available coursecasts of classes and lectures posted by participating

professors. No control group was used because no comparison between groups occurred.

Rather, a single group of participants was selected purposefully to explore the

effectiveness of the treatment after it was introduced. The comparison of pre-and-post

measurements produced valid results, and offered real potential to develop reliable and

valid answers to the research questions. Nevertheless, there were clear validity threats

associated with this research design, which needed to be controlled to ensure the validity

of study.

Validity and Reliability

As explained before, a pre-experimental, one-group, pretest-posttest design was

proposed because this type of design is appropriate when evaluating the influence of a

variable on a specific group, such as international students, in a naturalistic setting. Also,

when there are no experimental studies available, pre-experimental designs may help to

determine experimental ones. According to Broota (1989), non-experimental designs are

sound but less powerful than experimental models when it comes to drawing causal

relationships. Morgan, Gliner, and Harmon (2006), nevertheless, note that the one-group,

pretest-posttest design "could be useful if previous research had convincingly

demonstrated that without treatment the problem behavior would not decrease" (p. 83).

As the authors indicate, "in this situation, a successful intervention would be credible" (p.

83). Given the extensive review of the literature that highlights the language limitations

of international students and the impact that these language deficiencies have on their

understanding of lectures, a one-group pretest-posttest design was appropriately chosen

for this exploratory study. Additionally, the design fit the need to collect data within one

semester (16-week), which was essential since some students (those who were second

semester freshmen) would no longer be considered freshmen after that semester.

Whenever there are any kinds of time constraints, this type of design is commonly

identified as an advantage. Nevertheless, there were clear validity threats associated with

this research design, which needed to be controlled to ensure the validity of study.

According to Miller and Wicker (1999), the main threats to external validity when

choosing pretest-posttest designs are those associated to testing and selecting interaction,

and the threats to internal validity include history, maturation, testing, instrumentation,

and mortality.

With regards to external validity, the study relied on the data provided by the

Open Doors Report to ensure that the sample resembled the undergraduate international

student population attending college in the United States (IIE' Open Doors Report, 2007).

According to Open Doors (2007), international students account for 3.9% of all students

in American universities. The state of California is the leading host of international

students and the state of Florida is the fourth largest host (IIE' Open Doors Report,

2007). These were the two states that were involved, and California primarily, in the

study, which ensured that the students participating were representative of international

students in the United States. These students represented a variety of countries, which

minimized the threat of the study not being sufficiently representative. The sample was

small, but according to Alston and Bowles (2003), if the sample is homogeneous, a small

sample of 53 participants suffices. The intended sample was deemed homogeneous with respect to age, academic qualifications at entrance, year-in-school, but more importantly, they were homogeneous with respect to foreign status, which was the main focus of the study. Although one limitation of the study was that the majority of participants came from only one university, the diversity of the sample was still representative of the variety of international students in American campuses, and thus, the external validity could still be controlled adequately.   Overall, non-experimental designs tend to be strong in controlling for threats to external validity, and because they take place in naturalistic settings, they may be applicable to comparable settings (Saint-Germain, 2008).

With regards to internal validity, several aspects of the research needed to be controlled to ensure that the measured change, if any, was a result of the program (coursecasting) and not of other variables. According to Gay (1981), one-group pretest-posttest designs assume that improvement may be due to reasons other than treatment. This characteristic constitutes one of its main weaknesses, mostly because there are factors associated with the design that cannot be easily controlled, such as history, maturation, testing, instrumentation, and statistical regression. Gay (1981), however, mentions that the situations when this design could be appropriate include those when the behavior is not likely to change on its own unless a voluntary effort on the part of the participant is made, which is reflective of the type of behavior that was explored in this case. Since issues such as maturation and history are time-related threats, allowing for a short period of time between pretest and posttest is best.

According to Johnson and Christensen (2007), one of the best ways to determine whether an experimental treatment had an effect that was not due to maturation or history is the visual inspection of the pattern of pre-intervention and post-intervention behavior. Saint-Germain (2008) illustrates the threats to internal validity of pretest-posttest designs with a sample study. In the example, maturation is controlled when the group or groups experience the same developmental processes. Similar to Saint-Germain's (2008) study, the issue of maturation was adequately controlled since the research was conducted in one term, no longer than four months. Furthermore, in order to ensure participants experienced as similar-as-possible developmental processes, a question in the pre-questionnaire ensured that participating international students were not to be enrolled in an English support program or receive any additional English support in any other way. This eliminated the chance of students improving their English skills with an extraneous and purposeful treatment. No other unforeseen changes affecting their English skills or perceptions were identified after visually inspecting the pattern of pre-intervention and post-intervention suggested by Saint-Germain (2008).

Saint-Germain (2008) further suggests that the history threat is also controlled when the group or groups experience the same current events. According to the author, history is defined as the period of time between the beginning and the ending of the study. In this research, history was defined within the context of one term during which data was collected. Since none of the students were exposed to supplemental English during the term, the only foreseeable change in the environment that could affect the students' self-reported perceptions of their role in the course during the term-long study

was the program itself. Since testing was limited to perceptions, posttesting was not influenced by practice in any way. As a matter of fact, any practice (gained, for example, by repeatedly listening to the coursecast) added to the usefulness of the treatment.

If the measurement method did not change, instrumentation is controlled, according to Saint-Germain (2008). All of the instruments that were used in the study have been found to be reliable and valid, and they were administered in the same way and provided the same access to participants, so that weakness was minimized. According to Saint-Germain (2008), statistical regression may be a threat when performance, for example, differs among participants. The study was not affected by statistical regression since there was no control over what kinds of students enrolled in a chosen class. If anything, performance variances were relevant to address differences in results among different university participants, since different universities had different entry requirements. Testing is addressed by Saint-Germain (2008) as the possibility that pretesting affects posttesting. In this study, that was not the case because the pretest did not enhance or work against the treatment, so it was not affected. Design contamination refers to whether participants have any reasons to make the research succeed or fail, according to Saint-Germain (2008). In this study, participants had no reason to make the study succeed or fail as they did not get any compensation or reward out of the researcher. The only advantage to staying as participants was the perceived benefit to their overall academic achievement, which probably helped to diminish any experimental mortality. Experimental mortality is defined by Saint-Germain (2008) as voluntary or involuntary withdrawals on the part of participants. In this study, that constituted a real

threat, but the perception of benefit probably kept participants engaged. Given the number of participants needed for results to be representative of the population, purposive selection was chosen. Because random selection was not used, unintentional bias might have occurred, especially because participants were enrolled in different courses, different subjects, with different professor styles. Nevertheless, given the varied characteristics of the international student population in the United States, these differences only reflected the reality of the target population.

Procedures and Data Collection Methods

As was mentioned before, the sample for this study consisted of a number of international freshman students from different countries enrolled in a variety of courses offered by two universities in the United States. These students were selected from existing courses where coursecasting was an available option, using therefore, purposive sampling, which was appropriate in pre-experimental and naturalistic settings. Initial identification of willing professors facilitated the recruitment of students. Although most research efforts have looked at one class or course, this study used several classes or courses of 20-to-25 students each at two different universities. The researcher relied on the course professors to advertise and encourage students to participate in the study.

In order to identify appropriate colleges and universities, research was conducted through the Internet and through iTunes U to find out which institutions of higher education currently used podcasting. Only institutions that were using the podcasting technology on a regular basis in their courses were selected. Institutions that used the

technology sporadically for guest speakers, special events, or for other type of university activity, were eliminated from the contact list. The research primarily concentrated on universities located in states with high cultural diversity, such as California and Florida, as well as universities located in states that attract a high number of international students. The initial contact was made through e-mail to the directors of the technology departments responsible for maintaining and supporting the podcasting infrastructure. These directors provided the researcher with a list of professors who were using the technology, as well as with the names of technical people in their staff who were in charge of working with faculty on these efforts. An e-mail explaining the study (See Appendix M) and their involvement was sent to every professor included in those lists. Targeted professors taught in a variety of disciplines, as that was preferred in order to have a variety of teaching styles. A list of professors and universities is included in Appendix N.

More than five universities were originally selected and approximately 20 professors volunteered to help with their classes. These universities were located in the Southeast, the Midwest, the Northeast, and the West coast. Each of these classes had at least four international students. The total universe of students enrolled in the courses ranged between 180 and 225, with an approximate sample of between 36 and 40 international students for whom English is a foreign language. In order to ensure a valid sample of students, as many universities as possible were included. A variety of disciplinary subjects was desired but no specific subject matter needed to be specified or required when universities were contacted. As a result, more than one biology course

was included together with just one English course, for example. As mentioned earlier, professors advertised the study and the podcasts, while encouraging students to participate. A variety of teaching styles was present through the different professors, which was useful in identifying any possible patterns emerging with regard to the use of coursecasts and subject matter. At the end, the only participants who had completed all assignments correctly belonged to two institutions: Miami Dade College and University of California San Diego.

The population at Miami Dade College is composed of 161,668 students, 60% of which are female and 40% male. The ethnic mix is as follows: 9% white non-Hispanic; 19% black non-Hispanic; 68% Hispanic; 4% other (Miami Dade College, 2008). The population at the University of California San Diego is composed of 23,143 students, 52% of which are female and 48% male. The ethnic mix is as follows: 2% African American; 48% Asian; 13% Hispanic; 26% white-non Hispanic; and 10% other. There is also a small number of Native Americans. In total, approximately 64% of all undergraduates are students of color, which includes African American, Asian, Mexican American, Filipino, Latino, and Native American. Interestingly, 37% do not speak English as their native language (University of California San Diego, 2010).

As it was explained in the sample selection section above, despite the fact that the sample in this study was not random, the minimum size for permissible error at .05 was chosen as a guide (Alston & Bowles, 2003). The main reason for this decision is the absence of empirical studies in addressing the impact of podcasting in higher education, and especially the lack of studies addressing more than one class. To minimize the

potential of falling below the targeted minimums, the researcher continued to identify

possible courses in as many additional universities as possible until data collection began.

Once the colleges and courses were selected, the information about the study was

distributed to the students with the help of the professors teaching the courses, and

through a central Web site specifically constructed for this research. In addition to

providing general information about the study, as well as indicating how to get in contact

with the researcher for any questions or concerns, the Web site (see Appendix O for

screen shots) also allowed participants to access and complete the Informed Consent (see

Appendix P), and access, complete, and submit all of the instruments they were given

during the study.

The strategy called for the professor who taught the course to announce the

research in class, and to provide the URL address of the Web site. The professor also

asked those students who were interested in participating to fill out the online Informed

Consent. At the same time, the students were also asked to complete a basic online

information form (see Appendix Q), which gathered initial information regarding

familiarity with MP3 players and podcasting, gender, country of origin, native language,

reported TOEFL score, GPA, previous experience, and type of course, among other

things. Once the information was collected and a final number of students identified, the

researcher asked the students to complete the instruments, which were available online

through the Web site. Since the original instrument forms were not available online, the

researcher recreated all of them online, using an online survey tool (SurveyMonkey) that

enabled users to complete the questionnaires at their own convenience, within the pre-

established time periods set by the researcher. The time periods ranged from one to two weeks, and were described below in more detail. After the pre-established time period expired, the instrument was no longer available for viewing or completion. The instruments were password protected, so the researcher e-mailed the selected participants the appropriate password for each of the instruments at the appropriate time for the pretest and posttest. E-mail addresses were gathered from the online consent forms that were included in the Web page. Professors directed students to the Web page for them to complete the online form. Test instructions were included in each of the online surveys of the Web site, and became available once participants logged in with their assigned password. Having all of the instruments available online provided users with an effective and efficient way to participate in the study. Also, the online process made it more convenient for the researcher to collect the data in real time, thus eliminating logistic issues regarding the coordination and the gathering of data from multiple courses at different universities.

Each instrument was self-administered by participating students as follows. Within the first two weeks of class, online access to the Web version of the CADC, by Sodowsky and Lai (1997), was made available to all participating students enrolled in the course. This instrument measured the students' initial feelings of isolation and marginality as well as anxiety, and was made available again three weeks before the end of the semester to compare results. The Web versions of the SRFES and the FLCAS were also made available initially, within the first two weeks of the semester and following the CADC, and posttested three weeks before the end of the semester. These

tests measured fluency and oral proficiency, and sources of specific anxiety, respectively. At the end of the term, a post-questionnaire surveyed students regarding the number of podcasts that they downloaded, as well as their satisfaction and overall experience with the course and with the podcasts.

As mentioned above, all dependent variables were pre-and-posttested in order to measure any changes that occurred as a result coursecasting availability. Since standard semesters at the participating institutions were 16 weeks long, there was a ten-to-eleven week treatment lapse between pretest and posttest. During the whole semester, and specifically during these ten or eleven weeks, professors made coursecasts available by hosting them on their own university's Web sites. More specifically, professors participating in the research used Apple's iTunes U. In this way, there was uniformity with the technology used in all of the institutions, and students were able to access the coursecasts through the same system. Apple's iTunes U is an online Web site with easy-to-follow instructions on how to download their universities' coursecasts.

Analysis of Data

Dependent and manipulated variables were analyzed by using descriptive statistics in order to better understand the major characteristics of the sample (Okolo, 1990). According to Gay, Mills and Airasian (2009), descriptive statistics are good to describe the data, which is a useful first step to choose other statistical methods. Therefore, central tendency, variability, and correlation were used to help the researcher

decide on further statistical analysis, as well as to get an initial idea of whether changes in

pre-and-post testing findings seemed to be consistent with the study hypotheses.

Descriptive statistics were performed on all instrument results, and especially on

the pre-and-post questionnaire data. Central tendency, for example, showed typical

average data scores for each one of the instruments. Variability showed how spread out

were the data scores for each instrument and survey. Correlation measures helped to

identify the types of relationships present in the data scores of each instrument, and

whether they were positive or negative. Although, according to Gay, Mills, and Airasian

(2009), correlation measures should not be considered predictive, understanding the

relationships between, and among, variables proved useful when interpreting the

findings.

Nevertheless, the study made use of inferential statistics as well, in order to make

informed decisions about the sample based on the information that is gathered (Okolo,

1990). According to Gay, Mills and Airasian (2009), inferential statistics show how

likely is it that the results are representative of what could be obtained from a larger

population. Paired t-tests and correlations, together with means and percentages helped

the researcher to better understand the results of the study as well as identify and interpret

consequences and implications. T-tests were performed to understand the role of

available podcasts in the reduction of anxiety, marginality and isolation, as well as

English language proficiency. Additionally, and according to Gay, Mills, and Airasian

(2009), t-tests for non-independent samples allow for the comparison of a single group's

performance in pre-and-post testing, which made it an ideal method to use in this study.

Correlations tested the significance of the relationship between the amount of use and the different dependent variables before and after the use of the coursecasts. Therefore, they were performed on data collected from all the tests. Regression was also identified as a good method to identify the variables that contributed significantly to the study's predictive variable but was unable to be completed due to size. However, regression was conducted between dependent variables in order to identify how, and if, they affected one another. Overall, the techniques and methodology selected for data analysis were appropriate for one group pretest-posttest studies.

Resources

The following resources were identified as needed to conduct the study. As mentioned before, the researcher used courses where the professors already used coursecasting, thus eliminating the need of having to train professors, or providing them with software/hardware, or with having to work with the different institutions to address technical problems. Therefore, the resources listed were the only ones that were needed.

1. Hardware

   a. Podcasting Infrastructure: As mentioned before, only universities that had the infrastructure to facilitate the creation and sharing of coursecasting were used.

   b. MP3 Players/Computer Access: Professors and students needed to have MP3 players, such as iPods, to participate in the study; as well as access to a computer to download the podcasts and access the Web site that hosted the instruments. The study did not require a specific computer platform. Users

were able to use Windows or Mac operating systems, as long as they had access to the Internet.

2.   Networks

   a. All users (faculty and students) needed to have access to the Internet.

   b. All users (faculty and students) needed to have access to an e-mail system. The universities' systems were used, but free e-mail systems, such as Google Mail or Hotmail, were also used to maintain communication with the participants.

3.   Access to students

Access to international students, preferably freshmen, from different countries, enrolled in a variety of courses offered by several colleges and universities in the United States was needed. The goal was to enroll between three to five classes with 20-to-25 students, for a total of 60-to-150 students.

4.   Access to peers

Support from three-to-five professors or instructors who taught courses with a high number of international students was needed.

5.   Standardized test, surveys, or other forms of instrumentation

   a. Cultural Adjustment Difficulties Checklist (CADC) by Sodowsky and Lai (1997)

   b. Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz, Horwitz, and Cope (1986), modified minimally by researcher

   c. Self-Reported Fluency of English Scale (SRFES)

    d.   The Test of English as a Foreign Language (TOEFL) or its institutional

        equivalent, Institutional Testing Program (ITP)

    e.   Initial technology use survey/demographic questionnaire

    f.   Exit technology use survey

Summary

This chapter presented information on the methodology that was used to collect data and conduct the study, including a restatement of the research goals and research questions as well as its corresponding hypotheses. A discussion of the research sample and size was also included, together with a description of the instruments and its psychometric parameters.

Chapter 4

Results

Introduction

The purpose of this study was to explore the impact of available coursecasting in international students' perceptions of marginality and isolation, anxiety, and English proficiency and comprehension, through a one-group, pretest-posttest design. The review of the literature suggested that the lack of English language comprehension and proficiency were associated with higher levels of anxiety, as well as with feelings of marginalization and isolation in these students, affecting their academic performance, satisfaction, and retention (Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares & Herron, 2006; Swanson, 2006; Sümer et al., 2008; Van Nelson et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006). The literature also suggested that making coursecasts available could decrease the students' levels of anxiety, as well as their feelings of marginalization and isolation, by improving their language comprehension and proficiency (Abdous et al., 2009; Beheler, 2007; Bell et al., 2007; Brittain et al., 2006; Carvalho et al., 2008; Elliot et al., 2009; Fietze, 2009; Glogoff, 2009; IDG Global Solutions, 2006; Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005;

Morales & Moses, 2006; Nash, 2006; Ormond, 2008; Ractham & Zhang, 2006; Reynolds, 2005; Scutter et al., 2010; Wolff, 2006).

The intent of this chapter is to organize and report the findings of the study in order to interpret and evaluate them based on the pertinent literature. Throughout the study, the research questions guided the analysis of data. These results were further elucidated in chapter five in order to build a framework for future research.

Findings in chapter four are organized in the following format: 1) an overview of descriptive statistics using the demographic data collected on the participants; 2) the results of hypothesis testing, which include a restatement of each research question and its corresponding hypothesis in the null form, a brief summary of the results, and a presentation of the findings through tables; and 3) a summary of overall findings.

A power analysis was conducted to determine what tests were appropriate to run based on the size of the sample. It was determined that because it was a small sample, only a paired t-test could be conducted. The paired samples t-test was conducted with the scores resulting from the "before" and "after" totals for each test.

Descriptive Statistics

An initial descriptive analysis of data was conducted to better understand the characteristics of the sample as well as the size of its subsets. Determining the characteristics and size of each subset was very important as these characteristics influenced the way in which the hypotheses were to be tested. Table 2 illustrates the number of students who initially agreed to participate in the study and the number of

actual participants who completed all tests. The table shows the number of students who initially agreed to participate, per university. It is important to notice that, as explained in Chapter 3, multiple other universities were contacted, but could not be used because the courses that offered coursecasting had no freshmen, they offered supplemental podcasts instead of repetitive coursecasts, or the professors who volunteered their courses did not have freshman enrolled. At the end, only Miami Dade College and the University of California San Diego could be used. Nevertheless, and although quite a large number of students had originally agreed to participate by completing the voluntary consent form, as the semester progressed some did not complete all that was required, hence the final number of participants decreased. Several follow-up e-mails were sent to those who had one or two items left to complete in order to remind them, but once the semester finished officially, it was assumed that they had decided to withdraw from the study altogether, and thus were eliminated from the final sample. Possibly, the number of tests that needed to be completed for the study conflicted with the students' regular assignments.

Table 2. Participant Sample per Academic Institution

University/College	Number of Students that:				
	Completed IRB Consent Form	Dropped the Course	Completed None of the Surveys	Completed Some Surveys	Completed All Surveys
Miami Dade College	10	0	2	5	3
University of California San Diego	81	4	16	12	50
Total	**91**	**4**	**18**	**16**	**53**

Table 3 shows the sample (N=53) with respect to gender and native language spoken.

Table 3. Participants' Native Language & Gender

Native Language	Number of Students	Gender	
		Male	**Female**
French	3	2	1
Cantonese	4	0	4
Farsi	1	0	1
Hindi	1	0	1
Italian	1	0	1
Japanese	1	0	1
Korean	8	1	7
Mandarin	17	3	14
Spanish*	7	3*	4
Tagalo	3	1	2
Teochew	1	0	1
Vietnamese	6	0	6
Total	**53**	**10**	**43**
		53	

*Student is bicultural and chose both languages. He was counted within Spanish because he chose Colombia as his country of origin and then added Korean in "Other".

Since participants were registered in a variety of courses, Table 4 shows the courses that agreed to participate in the study within each academic institution. All these courses already had a podcasting component established, and the faculty members teaching them agreed to announce the study to their classes, as well as include the information in their syllabi. Eligible students would access the study's Web site on their own if they agreed to participate. In turn, Table 4 also5 shows the number of participants (N=53) that attended each of the participating courses grouped by discipline area.

Table 4. Students that Participated in the Study Grouped by Discipline Area

	Number of Students	
Course Areas	**Overall**	**Survey Completed**
Biology	13	8
English	5	3
Chemistry	23	19
Business/Economics	14	10
Math/Statistics	8	6
Music	1	1
Physics	5	5
Communications	1	1
Non Selected	21	0
Total	**91**	**53**

All participants completed a pre and post questionnaire that included demographics and other data. The pre-questionnaire inquired about previous technology experience, in general, and podcasting, in particular, while the post-questionnaire asked about actual podcast download data for the study. Table 5 shows participants previous podcast experience using podcasts as revealed by their pre-questionnaire answers.

Table 5. Participants' Previous Podcast Use Experience — Pre-Questionnaire

Have you ever listened to a podcast before?	**# of Students**
Yes	48
No	5
Total	**53**

Among the reasons given by those who said that they had never listened to podcasts before, the number one reason was that participants claimed to be too busy,

followed by those who did not see their relevance or did not know that the university had

them available. The third reason given was technical difficulty accessing podcasts.

Table 6 shows preferred technology option to listen to podcasts, based on

previous podcast use.

Table 6. Participants' Choice of Technology for Listening to Podcasts —
Pre-Questionnaire

If you have listened to podcasts before, what do you use to listen to the podcasts? (Select all that apply)	Students' Responses
PC/Notebook/laptop through a Web Browser	46
MP3 player or Apple iPod	16
PDA/Cell Phone or other handheld device	2
Burn to CD/CD Player	0
In Your Car	2
Other	1
I do not listen to podcasts	5

Table 7 shows participants' previous experience with MP3 players.

Table 7. Participants' Previous MP3 Experience—Pre-Questionnaire

Have you used a MP3 player?	# of Students
Yes - I have an iPod	38
Yes - I have a MP3 player that is not an iPod	9
Yes - I have used my laptop/computer as a MP3 player	5
No - I do not have one, but I might get one soon or use my laptop/computer as a player	1
No - I do not have one, nor do I plan to get one or use my laptop/computer as a player	0
Total	**53**

The Post-Questionnaire asked participants about their experiences throughout the study, and in particular about their podcasting habits and perceptions. Table 8 shows the number of course podcasts reportedly downloaded by each participant for their class.

Table 8. Number of Course Podcast Downloads per Participant Post-Questionnaire

How many of the course podcasts have you listened to?	# of Students
Not applicable – I didn't listen to any podcasts	4
1 – 5	24
6 – 10	7
More than 10	13
I listened to all of them	5
Total	**53**

Table 9 shows the type of technology used by participants to listen to the podcasts.

Table 9. Type of Technology Used by Participants to Listen to the Podcasts Post-Questionnaire

What did you use to listen to the podcasts? (Select all that apply)	# of Students
PC/Notebook/laptop through a Web Browser	50
MP3 player or Apple iPod	10
PDA/Cell Phone or other handheld device	0
Burn to CD/CD Player	0
In Your Car	4
Other	0
Not applicable – I didn't listen to any podcasts	3

Table 10 shows the download pattern for participants, indicating when they were most likely to download them once they were posted on their course's Web site.

Table 10. Participant Pattern of Podcast Downloads | Post-Questionnaire

When did you listen to the course podcasts?	# of Students
On the same day or a couple of days after they were made available	11
3 or 4 days after they were made available	6
At the end of the week	1
Just before the tests	18
No specific pattern	13
Not applicable – I didn't listen to any podcasts	4
Total	**53**

Table 11 shows participants' perceptions regarding how much the podcasts impacted their learning in the course.

Table 11. Participants' Perceptions Regarding Podcast Impact on their Learning | Post-Questionnaire

To what extent do you believe that podcasting impacted your learning experience in the class?	# of Students
It impacted it strongly in a positive way	10
It impacted it in a positive way	33
It did not impact it at all	10
It impacted it in a negative way	0
It impacted it in a strongly negative way	0
Total	**53**

Table 12 shows participants' perceptions regarding how much the podcasts influenced their attendance to class.

**Table 12. Participants' Perceptions Regarding Class Attendance |
Post-Questionnaire**

To what extent do you believe that having the podcasting files available to you affected your attendance to the class?	# of Students
I strongly agree it affected my attendance; I rarely went to class	2
I agree it affected my attendance; I missed several classes	16
I disagree it affected my attendance; I rarely missed class	20
I strongly disagree it affected my attendance; I never missed class	15
Total	**53**

Table 13 shows participants' perceptions regarding whether podcasts influenced their final grade in the course.

**Table 13. Participants' Perceptions Regarding Podcast Influence on Final
Course Grade | Post-Questionnaire**

To what extent do you believe that podcasting impacted your final grade in the course?	# of Students
It allowed me to improve my final grade	26
It did not impact my grade at all	26
It impacted my final grade in a negative way	1
Total	**53**

Table 14 features participants' evaluation of what podcasting aspect made it most attractive for them, enticing them to download them in their course.

Table 14. Participants' Evaluation of Podcast Aspects | Post-Questionnaire

What did you like about the podcasts? (Select all that apply)	# of Students
The podcasts allowed me to feel less anxious about information I didn't catch in class	39
The podcasts allowed me to catch-up on missed classes	30
The podcasts allowed me to go over the lectures again so I could understand the professor better	30
The podcasts allowed me to review class material to help me study and prepare for exams	30
I feel that the podcasts helped me to further develop my English skills by allowing me to listen again to things I didn't understand the first time around	7
The podcasts made studying more fun and convenient because I could listen to them at any time	17
The podcasts made me feel better prepared for class	15
I didn't like the podcasts; I found them unnecessary	5
I didn't like the podcasts; they took too much time	8
Other*	1

* Student note: Since its only sound, it doesnt really help when the prof is explaining something on the board or slide

At the end of the study, the academic institutions provided a number of total downloads that took place per class. Table 15 shows the number of downloaded podcasts per academic course of study as provided by the academic institution. No data was provided by MDC. Although, this data includes downloads performed by all students enrolled in each course and not just those participating in the study, it seemed important to include it here because it gives an idea of how popular podcasts were in each of these classes and fields of study. The coursecasts seemed to be more popular in the social sciences than in the hard sciences, which can lead some researchers to investigate appropriateness—or even tailoring—of the technology in each academic field.

Furthermore, it also shows that the coursecasts were popular among all students and not just international ones.

Table 15. Total Number of Downloaded Podcasts per Course

University	Course	Overall Course Downloads
MDC	ENC 1102 - The Adventures of Sherlock Holmes	NA
UCSD	BILD 1 - The Cell	7,340
UCSD	BIMM 114 – Virology	6,611
UCSD	CHEM 6C - General Chemistry III	4,040
UCSD |COGS 14 - Design & Analysis of Experiments	2,821
UCSD	COSF 171A - American News Media	8,918
UCSD	ECON 100C – Microeconomics	4,935
UCSD	ECON 110A – Macroeconomics	10,970
UCSD	ECON 110B – Macroeconomics	5,904
UCSD |ECON 139 - Labor Economics	3,304
UCSD	MATH 20A - Calculus/Science & Engineering	1,959
UCSD	MUS 4 - Introduction to Western Music	4,926
UCSD	PHYS 2B - Phys-Electricity and Magnetism	4,212
UCSD	PSYC 60 - Introduction to Statistics	3,971
Total	**69,911**

Note: MDC stands for Miami Dade College, and UCSD stands for University of California San Diego

Table 16 lists the means and standard deviations for all variables involved in this study as measured by the three tests before and after. In every case, each test had one total score, which was determined by adding the scores for each question. Total scores were calculated for each "before" and "after" test as explained below. For the CADC and the SRFES, the total "before" and "after" scores were obtained by adding the values of the Likert-type scales. Pair 1 shows the before and after t-scores for the CADC instrument. BCT stands for t-score for CADC before treatment. ACT stands for t-score

for CADC after treatment. Pair 2 shows the before and after t-scores for the SRFES instrument. BST stands for t-score for SRFES before treatment. AST stands for t-score for SRFES after treatment. Pair 3 shows the before and after t-scores for the FLCAS instrument. BMT stands for t-score for the FLCAS before treatment. AMT stands for t-score for the FLCAS after treatment.

The maximum total score for the CADC was calculated at 354 for a total of 59 questions featuring a Likert-type scale of 1 to 6, where 1 stands for "a very inaccurate description of you" and 6 "a very accurate description of you." The maximum total score was calculated by multiplying the number of questions (59) by the highest score in the Likert scale, which was 6 (a very accurate description of you). In this particular sample, the maximum score was found to be 279 and the lowest score was found to be 154 for the "before" test. For the "after" test, the maximum score was found to be 247 and the minimum was found to be 161. This instrument measured students' initial feelings of isolation and marginality, as well as anxiety, and a decrease was appreciated between the "before" and "after" test.

The maximum total score for the SRFES, was calculated at 15 for a total of 3 questions featuring a Likert-type scale of 1 to 5, where 1 stands for "very poor" and 5 stands for "very comfortable". The maximum total score was calculated by multiplying the number of questions (3) by the highest score in the Likert scale, which was 5 (very comfortable). In this particular sample, the maximum score was found to be 15 and the minimum score was found to be 8 for the "before" test. For the "after" test, the maximum score was found to be 15 and the minimum was found to be 10. This

instrument measured students' self-perceived English fluency, and an increase in self-perceived fluency was appreciated between the "before" and "after" test on those individuals who had ranked themselves at the low-end of the scale.

The FLCAS was also a Likert-type scale but with a nominal scale that went from Strongly Disagree to Strongly Agree. A numeric value was given to convert the scale by assigning a value of 1 to "Strongly Disagree" and a value of 5 to "Strongly Agree". The maximum total score was calculated by multiplying the number of questions (32) by the highest score in the Likert scale (strongly agree). The FLCAS had a highest possible score of 160 for a total of 32 questions. In this particular sample, the maximum score was found to be 126 and the minimum score was found to be 63 for the "before" test. For the "after" test, the maximum score was found to be 117 and the minimum score was found to be 70. This instrument measured situation-specific anxiety with regards to communication apprehension in the classroom, and a decrease was observed between the "before" and "after" test.

Reliability analysis was conducted for all instruments. A minimum reliability score of .70 was sought as adequate. Chronbach's alpha coefficient scores for all three instruments were reported at .859 for the CADC, .877 for the SRFES, and .888 for the FLCAS. Therefore, rounded scores for all three instruments show very good reliability.

Unfortunately, scores for the TOEFL portion of the study had to be eliminated since some of the universities did not require the exam for admission. Although all participants completed the required "after" institutional version of the TOEFL, the universities could not provide scores for a considerable number of the students.

Table 16. Means and Standard Deviations for Before and After Scores for CADC, SRFES, and FLCAS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	BCT	203.30	53	21.945	3.014
	ACT	201.47	53	18.199	2.500
Pair 2	BST	13.79	53	1.598	0.219
	AST	13.62	53	1.522	0.209
Pair 3	BMT	94.15	53	12.256	1.683
	AMT	93.98	53	12.511	1.718

Hypotheses Testing

The following research questions guided the development of this study and served as the basis from which the hypotheses for this research emerged. They are as follows:

1. What impact does the use of downloadable coursecasts have on international students' oral language proficiency and overall English comprehension as measured by the SRFES?

2. What impact does the use of downloadable coursecasts have on international students' feelings of anxiety as measured by the FLCAS and CADC?

3. What impact does the use to downloadable coursecasts have on international students' feelings of marginality and isolation as measured by the CADC?

For this research study, hypotheses were tested using a Paired Samples test. Throughout the analysis of data, an alpha of .05 was used. A restatement of each research question with its corresponding hypothesis in the null form follows.

First Research Question:

What impact does the use of downloadable coursecasts have on international students' oral language proficiency and overall English comprehension as measured by the SRFES?

Null Hypothesis:

There is no significant change at the .05 level of significance between available downloadable coursecasts and international students' oral language proficiency and overall content comprehension as measured by the SRFES. Nevertheless, as shown in Table 17, the mean scores of international students' perceptions of anxiety as measured by the FLCAS and the CADC, as well as their perceptions of marginality and isolation as measured by the CADC experienced a shift in the hypothesized direction between pretest and posttest. Mean scores for the CADC at pretest and posttest were 203.30 and 201.47. Mean scores for the FLCAS at pretest and posttest were 94.15 and 93.98. The decrease in the mean scores for both instruments suggests that both classroom anxiety and marginality and isolation were empirically reduced. It is possible that the lack of significance in the t-test was a result of the limited exposure to the coursecasting treatment.

As explained earlier, the initial TOEFL/ITP test scores were impossible to obtain so the testing of the hypothesis was limited to the SRFES. T-test scores were computed to determine the differences between the paired "before" and "after" total scores on the SRFES for each student. Table 17 shows that the results fall outside of the 95% interval, so it is not in the range of what can be considered significant. Because there is no

significance at the *p*< .05 level between the before and after scores for each of the

assessments, the researcher fails to reject the null hypothesis. Table 17 also shows the

means of the difference between the pretest and posttest results for each instrument which

was used to determine the level of significance in the paired samples.

Table 17. Summary of Paired Samples Statistics for Before and After Scores for CADC, SRFES, and FLCAS

	Pair Difference							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1 BCT-ACT	1.830	14.191	1.949	-2.081	5.742	0.939	52	0.352
Pair 2 BST-AST	0.170	1.033	0.142	-0.115	0.454	1.197	52	0.237
Pair 3 BMT-AMT	0.170	7.856	1.079	-1.996	2.335	0.157	52	0.876

Second Research Question:

What impact does the use of downloadable coursecasts have on international

students' feelings of anxiety as measured by the FLCAS and CADC?

Null Hypothesis:

There is no significant change at the .05 level of significance between available

downloadable coursecasts and international students' perception of anxiety as measured

by the FLCAS and CADC.

T-test scores were computed to determine the differences between the paired

"before" and "after" total scores on the FLCAS and CADC for each student. Table 17

shows that the results fall outside of the 95% interval, so it's not in the range of what can

be considered significant. Because there is no significance at the *p*< .05 level between

the before and after scores for each of the assessments, the researcher fails to reject the null hypothesis.

Third Research Question:

What impact does the use to downloadable coursecasts have on international students' feelings of marginality and isolation as measured by the CADC?

Null Hypothesis:

There is no significant change at the .05 level of significance between available downloadable coursecasts and international students' perception of marginality and isolation as measured by the CADC.

T-test scores were computed to determine the differences between the paired "before" and "after" total scores on the CADC for each student. Table 17 shows that the results fall outside of the 95% interval, so it's not in the range of what can be considered significant. Because there is no significance at the *p< .05* level between the before and after scores for each of the assessments, the researcher fails to reject the null hypothesis.

Since t-test scores showed no significance, the data was further explored by computing Pearson correlations among all instruments in order to explore the relationship, if any, between self-reported English proficiency as measured by the SRFES and the changes in perceptions of anxiety, marginality and isolation as measured by the FLCAS and the CADC, respectively. Table 18 offers a correlation matrix showing no significant correlation at the $p < .01$ level of significance between self-reported English proficiency and marginality and isolation as measured by the CADC. Nevertheless, it shows significance at the $p < .01$ level of significance between the self-reported English

proficiency and situation-specific anxiety in communication apprehension in the classroom as measured by the FLCAS.

Table 18. Summary of Correlation Statistics for Before and After Scores Between the SRFES, CADC, and FLCAS

		BST	AST	BCT	ACT	BMT	AMT
		Correlations					
BST	Pearson Correlation	1	.782**	-.116	-.233	-.448**	-.450**
	Sig. (2-tailed)		.000	.410	.093	.001	.001
	N	53	53	53	53	53	53
AST	Pearson Correlation	.782**	1	-.241	-.261	-.459**	-.394**
	Sig. (2-tailed)	.000		.083	.059	.001	.003
	N	53	53	53	53	53	53
BCT	Pearson Correlation	-.116	-.241	1	.765**	.253	.209
	Sig. (2-tailed)	.410	.083		.000	.068	.132
	N	53	53	53	53	53	53
ACT	Pearson Correlation	-.233	-.261	.765**	1	.322*	.466**
	Sig. (2-tailed)	.093	.059	.000		.019	.001
	N	53	53	53	53	53	53
BMT	Pearson Correlation	-.448**	-.459**	.253	.322*	1	.799*
	Sig. (2-tailed)	.001	.001	.068	.019		.000
	N	53	53	53	53	53	53
AMT	Pearson Correlation	-.450**	-.394**	.209	.466**	.799*	1
	Sig. (2-tailed)	.001	.003	.132	.001	.000	
	N	53	53	53	53	53	53

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

Although no prediction can be made out of correlational significance, Englisth proficiency seems to shape perception of classroom anxiety. Interestingly, the correlation matrix also shows that there is a significant relationship at the *p< .05* level of significance between the perceptions of situation-specific anxiety in communication apprehension in the classroom as measured by the FLCAS and the posttest results of the marginality and isolation as measured by the CADC. Evidently, a decrease in perceived anxiety affects in some way the perceived levels of marginality and isolation in international students.

As a follow up to the correlation matrix, a linear regression analysis was performed by using pretest and posttest self-reported English proficiency as the dependent variable and pretest and posttest anxiety, marginality and isolation as the predictors. Table 19 shows pretest linear regression analysis and Table 20 shows posttest linear regression analysis. R-Square results were .164 and .201, respectively.

Table 19. Regression Analysis for Pretest Scores Between the SRFES and the CADC and FLCAS

ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	26.662	2	13.331	6.285	.004[a]
Residual	106.055	50	2.121		
Total	132.717	52			

a. Predictors: (Constant), BMT, BCT
b. Dependent Variable: BST

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	19.321	2.187		8.834	.000
BCT	.000	.010	-.002	-.018	.985
BMT	-.058	.017	-.448	-3.426	.001

a. Dependent Variable: BST

Table 20. Regression Analysis for Posttest Scores Between the SRFES and the CADC and FLCAS

ANOVA[b]

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	19.809	2	9.905	4.921	.011[a]
Residual	100.643	50	2.013		
Total	120.453	52			

a. Predictors: (Constant), AMT, ACT
b. Dependent Variable: AST

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	19.377	2.259		8.578	.000
ACT	-.009	.012	-.106	-.734	.466
AMT	-.042	.018	-.347	-2.403	.020

a. Dependent Variable: AST

In both the pretest and posttest, there is significance at the $p< .05$ level between self-reported English proficiency as measured by the SRFES and perceived situation-specific anxiety in communication apprehension in the classroom as measured by the FLCAS, but there is no significance with the perceived marginality and isolation as measured by the CADC. These results could possibly suggest that the coursecasting treatment may have had some type of effect, albeit insignificant enough to reject the null hypotheses. Nevertheless, significance could have been observed had there been more exposure time to the coursecasting treatment between the pretest and the posttest.

Summary

This chapter organized and reported the findings of the study in order to interpret and evaluate them based on the pertinent literature in chapter five. The findings presented in this chapter included an overview of descriptive statistics and the results of testing the hypotheses. The testing of the hypotheses showed that downloadable coursecasts had no significant impact on international students' oral language proficiency, and overall content comprehension, their perceptions of anxiety, marginality and isolation as measured by the different assessments used. These quantitative results were further elucidated in chapter five in order to build a framework for future research.

Chapter 5

Conclusions, Implications, Recommendations, and Summary

Introduction

A pre-experimental research approach was proposed to explore the impact of available coursecasting in international freshman students on their perception of marginalization and anxiety, as well as on their self-reported English proficiency. The study used a situated learning perspective, which suggests that social engagement provides an ideal context for learning to occur (Lave & Wenger, 1991). The review of the literature showed that language proficiency is one of the main determinants of cultural adjustment (Dao et al., 2007; Kwon, 2009; Sümer et al., 2008; Yeh, 2003), which in turn, is thought to affect a student's feelings of anxiety, marginality and isolation (Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares & Herron, 2006; Swanson, 2006; Sümer et al., 2008; Van Nelson et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006).

Although the benefits associated with the general use of technology in the classroom have been extensively documented, studies exploring the use of podcasting in academia are difficult to find. Belanger (2007), Bell et al. (2006), Carvalho et al. (2008), Fietze (2009), IDG Global Solutions (2006), Kaplan-Leiserson (2005), Littlefield (2006),

Manning (2005), Meng (2005), Morales and Moses (2006), Nash (2006), Ractham and Zang (2006), Reynolds (2005), Scutter et al. (2010), and Wolff (2006), suggest that available coursecasts could constitute a viable intervention to help students adjust academically, by decreasing the students' levels of anxiety, as well as their feelings of marginalization and isolation, since it could potentially improve the language comprehension and proficiency. Given the importance that international students have in American higher education, and taking into consideration that their biggest obstacle to a successful adaptation seems to be their high levels of anxiety, marginality, and isolation as a result of their challenging English language skills, this study formally explored the impact of downloadable coursecasts on these variables.

As a result, the purpose of this study was to explore the impact of available coursecasting in international students' perceptions of marginality and isolation, anxiety, and English proficiency and comprehension through a one-group, pretest-posttest design. The study was organized in five chapters. Chapter one presented an introduction to the background of the problem and the related research. It also addressed the need for the study, its purpose, the theoretical framework that guided it, the research questions to investigate, its significance, and any assumptions and limitations, as well as a review of significant terms. Chapter two provided a comprehensive review of the literature regarding language deficiencies, anxiety, marginality and isolation, and podcasting, as well as a review of the needs and challenging experiences of international students. In reviewing a number of studies, appropriate instruments were selected, which included the Cultural Adjustment Difficulties Checklist (CADC), the Foreign Language Classroom

Anxiety Scale (FLCAS), and the Self-Reported Fluency of English Scale (SRFES), as well as methods to collect podcasting data. Chapter three explained the proposed methodology to conduct the research study, including a description and assessment of the instruments to be used, the research design, the procedures and methodologies for data collection and data analysis of a sample of 53 international freshman students attending a variety of classes in two American universities. Chapter three also explored the validity and reliability of the study. Chapter four organized and reported the findings of the study, and interpreted and evaluated them based on the pertinent literature. This chapter also included a testing of the hypotheses, which will be further elucidated in Chapter five in order to build a framework for future research.

This chapter, thus, concludes the study and discusses the relevance and significance of the results found in chapter four, the implications and conclusions drawn from the results of the study, and the areas for future research. This discussion will be presented in the following format: 1) restatement of each research question assessing the extent to which each objective was accomplished, a discussion on the findings and significance of the results, and their implications to the fields of study and professional practice; 2) recommendations for future research and practice; and 3) concluding statement.

Significance of Results

Conclusions on the First Research Question

The first research question is as follows: What impact does the availability of downloadable coursecasts have on international students' oral language proficiency and overall content comprehension in the English language as measured by the SRFES?

As explained throughout the study, the possibility of a relationship between international students' oral language proficiency and overall comprehension in the English language and the availability of downloadable coursecasts emerged from a literature review conducted on the concept of podcasting technology applied to education (Beheler, 2007; Bell et al., 2006; Carvalho et al., 2008; Fietza, 2009; IDG Global Solutions, 2006; Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Nash, 2006; Ractham & Zhang, 2006; Reynolds, 2005; Scutter, 2010; Wolff, 2006). More specifically, the literature suggested that since language proficiency and comprehension is one the biggest challenges affecting international students' adaptation, the effects of downloadable coursecasts on students' oral proficiency and comprehension, especially if positively significant, should be formally researched to determine if the educational use of coursecasts should be endorsed by academia (Fietze, 2009; Hirschland, 2005; Maurer, 2006; Read, 2005; Studinski, 2006; Swanson, 2006).

Although the objective of this first research question was accomplished in the study, no significant impact could be statistically established between available coursecasts and self-rated English language proficiency and overall comprehension. As

such, the researcher failed to reject the null hypothesis. Whenever the null hypothesis

fails to be rejected, it might be possible that the study incurred in a Type II error, which is

also known as a false negative. Type II errors suggest that the researcher failed to

observe significance when, in fact, there was one (Gay et al., 2009). A Type II error

often implies the need to further evaluate the treatment because future research can reveal

a positive association that this study failed to observe. In this study, significance was

chosen at .05 level because that is a standard practice and there was not an incredible risk

in being wrong. Nevertheless, it is important to understand how the possibility of a Type

II error may be avoided in future studies.

In this study, for example, the possibility of a Type II error was spotted when self-

reported English proficiency seemed to shape classroom anxiety, especially with regards

to situation-specific communication apprehension. In other words, as communication

anxiety decreased, as evidenced by the posttest, the feelings of isolation and

marginalization also decreased. It could be inferred that communication anxiety

decreased because students' oral confidence increased. Since none of the students were

enrolled in supplemental English classes or language support, it is certainly a possibility

that the availability of coursecasts had some effect on their English skills, albeit

insignificant statistically as a result of a Type II error. Conversely, an alternative

scenario could be that significance could not be found because self-rated English

proficiency is subjective, and students' may have been biased in their responses. This is

particularly relevant because the SRFES is only three open-ended questions.

Additionally, and as explained earlier, the TOEFL could not be used as an additional

English proficiency measure due to the inability to obtain entry TOEFL scores. This constituted a limitation when testing the hypothesis, which in turn, probably weakened the overall results. It is possible that if the TOEFL had been used, any effect on English proficiency would have been better documented.

Bayes Theorem (Earman, 1992) suggests that a Type II false negative is not only determined by the accuracy or precision of the instrument, but by the actual rate of frequency of accuracy within the population. Therefore, even valid and reliable instruments can yield false negatives, simply because the presence of the issue (i.e. anxiety, marginality and isolation, increase in English proficiency) did not happen a significant number of times during the length of exposure to the treatment. This certainly could have been the case in this study, since it only lasted a semester. Furthermore, this study relied on online administration of the instruments, which can easily lead to computer impostors or biased responses which can increase a Type II error. Also, and although all efforts were made to ensure that participants answered honestly, there was no real way to verify whether they actually did.

Another important issue to keep in mind is length of exposure to the treatment. It is logical to think that the longer the exposure to the treatment, the more possibility there is for the research issue to be observed or detected by the instruments. This is particularly relevant in the case of developing English proficiency. Additional studies offering the treatment for a longer period of time may yield different results. In similar fashion, large samples also reduce the presence of Type II errors, mostly because when the sample size increases, so does the statistical power, and the Type II error decreases.

In the case of this study, a larger sample would have helped, but mostly a comparison control group would have made the study stronger, and would have helped to reduce the risk of engaging in Type II error.

Overall, one of the most important reasons to focus on the possible presence of a Type II error is that a false negative may lead to inadequate treatment of the research issue. In the case of this study, a false negative would prevent university staffers who are responsible for improving the experience of international students from taking advantage of a methodology that could increase their language proficiency, while reducing their classroom anxiety and feelings of marginalization and isolation. In other words, a false negative would prevent them from being exposed to easier and more effective methods of acculturation. That in itself presents an important reason to further explore the effectiveness of coursecasts in subsequent studies. Additionally, a false negative might also deter researchers from investigating this issue further, thus resulting in an effective practice being prematurely abandoned or not thoroughly explored.

Implications for Research and Practice

Although there was no significance in the case of the first research question, there is a number of researchers who have found that the use of coursecasts does, in fact, help students with their language proficiency (Abdous et al., 2009; Carr, Koyama & Thiagarajan, 2003; Carvalho et al., 2008; Clark, Taylor, & Westcott, 2007; Elliot et al., 2009; Fietze, 2009; Glogoff, 2009; O'Bryan & Hegelheimer, 2007; Ormond, 2008; Scutter et al., 2010; Walls et all., 2009). Therefore, this study set out to provide formal, quantitative results about a practice that had been studied from a mostly anecdotal

perspective in the past. Consequently, the study has impacted the field by expanding the knowledge on how to use podcasts educationally. Its main contribution, both in terms of knowledge and practical application, comes from further understanding how this technology is used. Additionally, it shed light on how it may be used to help international students to acculturate better to our academic institutions. The formal, quantitative results also provided valuable information about the value of coursecasting in a natural setting.

Although there was no significance in this first research question, and the researcher failed to reject the null hypothesis, Table 17 shows that the mean scores of international students' perceptions of anxiety as measured by the FLCAS and the CADC, as well as their pereceptions of marginality and isolation as measured by the CADC experienced a shift in the hypothesized direction between the pretest and posttest. As explained in Chapter 4, English proficiency seems to shape perception of classroom-specific anxiety, and Table 18 shows that the two are correlated. It would definitely be desirable to further explore this correlation with a larger sample or by presenting participants in a longer exposure to the treatment. Furthermore, the regression analysis performed in Chapter 4 also showed that both at the pretest and posttest levels there was significance between English proficiency and perceived classroom-specific anxiety (see Tables 19 & 20). These results do not seem to contradict what the literature indicated with respect to the relationship between coursecasting and English proficiency.

Additionally, descriptive statistics included in Chapter 4 also seem to be in line with what had been reviewed in the literature. Table 11, for example, shows participants'

perceptions regarding the impact of coursecasts on their learning in a post-questionnaire. Out of the 53 participants, 33 responded that coursecasting had impacted their learning in a positive way, and 10 responded that it had impacted them strongly in a positive way. Only 10 out of 53 participants said that the coursecasts had no impact, and no participants believed that the coursecasts had a negative or strongly negative impact. Furthermore, half of the participants believed that the coursecasts had allowed them to improve their final grade in the course (see Table 13), mostly because it allowed them to feel less anxious about missed information, as well as because it allowed them to review and prepare better for classes and exams (see Table 14).

Similar to what was reported in the descriptive section of this study, Abdous et al. (2009) reported that students found that the coursecasts had impacted their learning positively. Additionally, the authors also suggest that when professors use podcasts in multiple ways throughout the course, students report academic benefits. This, the authors suggest, is particularly important when it comes to developing language proficiency, expand students' vocabulary, and build oral and aural skills because it provides a low-cost format that is both flexible and portable.

Scutter et al. (2010), on the other hand, also suggest another important feature of coursecasts, which is the opportunity it provides to accommodate multiple learning styles, while developing auditory skills. As the authors suggest, some students may learn more by taking notes, while others learn more by listening, and yet others may need the repetition (without distractions) to further understand the material. More specifically, the authors note how international students enjoyed the opportunity that coursecasts gave

them to add anything they had missed or misunderstood in class, thus giving them a

chance to retain concepts better. That was also confirmed by this study, where most

participants reported feeling less anxious because they could listen to the professor again

to understand him or her better (see Table 14). Similarly, Elliot et al. (2009) and Glogoff

(2009) noted that not only did podcasts accommodate multiple learning styles, but that

their availability to students encouraged professors to speak more slowly, clearly, and

more coherently, which made it easier for students to review the material for exams.

Clark et al. (2007) and Glogoff (2009) in particular, observed that it truly helped

international students with their language skills. O'Bryan and Hegelheimer (2007) also

observed that reviewing lectures not only aided international students with their language

skills, but it also enhanced their listening comprehension.

This study also helped to dismiss the "attendance myth" surrounding the use of

podcasts in class. Similarly to what Fietze (2009) and Glogoff (2009) found, available

coursecasts did not affect attendance. In this study this was particularly true as

international students must keep their attendance at all times due to visa requirements.

Table 12 showed how 20 out of 53 students who used the coursecasts rarely missed class

and disagreed that the treatment affected their attendance to class, while 15 said that not

only did they strongly disagree that coursecasting affected their attendance, but that in

fact, they never missed class. In most cases and regardless of immigration regulations,

these students welcomed the opportunity to focus on the professor during class to later

review the material on their own (see table 14). It can only be assumed that if they

voluntarily downloaded the podcasts after physically attending class, it is because they

found the additional review helpful. As the literature indicates, anything that increases their satisfaction with the academic experience will help with the acculturation of international students. Furthermore, Glogoff (2009) also observed that coursecasts were found to be useful regardless of the discipline, which was also confirmed by this study that featured various disciplines and subject areas.

Keeping in mind that this study may have experienced the possibility of Type II error, further exploration of the coursecasting option is advised to avoid ignoring the implementation of a practice that might benefit international students after all. More studies would allow educators to gain further insight into the use of this technology to determine whether there is merit in offering it to international students, training professors on it, and ultimately equipping classrooms with it.   Furthermore, given the results reported in Chapter 4 and discussed above, implications for future research regarding the practical use of coursecasts to improve language proficiency and comprehension include the following:

1. As suggested by Carr et al. (2003), international students who experience language difficulties may shy away from actually asking for help when they do not understand something, especially when in class, making them more prone to fail to comprehend the content. Since available coursecasts seem to provide a way to review material in private, additional research should be conducted to investigate whether there is any relationship between coursecasts and self-efficacy in the classroom.

2. It would be interesting to examine the effects of available coursecasts on note-taking, by exploring whether language proficiency and comprehension improves when compared to students who do not have that option.

3. It would be useful to explore how international students with learning differences or other physical disabilities, in addition to language deficiencies, would benefit from available coursecasts.

4. It would be important to explore whether available coursecasts have any effect on improving accent and pronunciation without having the international students enroll in remedial or supplemental language instruction.

Conclusions on the Second Research Question

The second research question is as follows: What impact does the availability of downloadable coursecasts have on international students' perception of anxiety as measured by the FLCAS and CADC?

Throughout the study the adjustment issues affecting international students, their academic performance and satisfaction have been documented. In most cases, their adjustment issues have to do with a lack of language skills, which increase their feelings of anxiety, and subsequently, their feelings of marginality and isolation (Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares, & Herron, 2006; Poyrazli & Grahame, 2007; Swanson, 2006; Sümer et al., 2008; Van Nelson, et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006). The review of the literature suggested that

there could be a relationship between available coursecasts and a decrease of anxiety, mostly because these coursecasts would help bolster students' self-efficacy in academic situations by allowing them to review the material that they may have missed in class (IDG Global Solutions, 2006; Nash 2006; Wolff, 2006). Elliot et al. (2010), for example, observed that coursecasts actually helped students to pay attention in class by focusing on the content, rather than worry about taking notes frantically. They also observed that coursecasts helped students that were anxious about their oral skills or had other learning differences to relax while attending classes.

According to Jiao and Onwuegbuzie (2002), as well as Elliot et al. (2010), academic anxiety has a debilitative effect on students, and negatively affects their academic performance because it hinders their ability to receive and decode, focus and concentrate on, and transmit and encode information. This cognitive interference causes them academic anxiety, thus leading to the development of feelings of marginality that isolate them from the group (Randall, 2007). More specifically, marginality was defined by Badur (2003) as a feeling of inadequacy to communicate successfully due to language comprehension difficulties that are mostly oral. Language anxiety, on the other hand, includes communication apprehension, especially when students self-rate their language proficiency low (Goshi (2005). Therefore, both the FLCAS and the CADC were used to explore this research question because both look at marginality in slightly different ways. The FLCAS, which was modified slightly, measures the anxiety that results from communication apprehension in the classroom. The CADC, on the other hand, looks at self-perceived levels of anxiety that result from feelings of isolation and marginalization.

Although the objective of this second research question was accomplished in the study, no significant impact could be statistically established between available coursecasts and international students' perception of anxiety as measured by both the FLCAS and CADC. As such, the researcher failed to reject the null hypothesis. Nevertheless, and similar to what was explained with regards to the first research question, there is a possibility that the study contained a Type II error, which means that there is a need to further investigate the research issue to see if there is, in fact, a positive association that this study failed to observe. In the case of this second research question, a Type II error could possibly exist because participants had limited exposure to the coursecasting treatment, since it only lasted for one semester. As it was explained before, a false negative can occur when the issue (anxiety, and marginality and isolation) is not observed or experienced a sufficient number of times during the length of exposure. It is possible that a longer exposure may have reduced this type of error. This seems to be supported by participants' responses included in Chapter 4 (see Table 18). Of course, the lack of a control group posed a threat, which allowed for Type II error to occur.

Worthy of attention is the fact that when additional tests were conducted with only the dependent variables, there was significance between self-reported English proficiency and anxiety scores. The regression model indicates that when self-perceived oral proficiency increases, anxiety decreases, which is in line with what the literature suggests. Since these students were not exposed to any unusual or additional language support, it is an interesting possibility that the self-perceived improvement in oral proficiency may have been a result of the available coursecasts. Additionally, a

correlation matrix showed that anxiety, and marginality and isolation were positively related. In other words, when anxiety decreased, so did the feelings of marginality and isolation. Again, this is very much in line with what was found in the review of the literature.

Overall, the fact that this study did not use a control group constituted an important limitation, since it became impossible to ascertain whether the decrease in anxiety alluded to above was simply a result of increased familiarity with the subject or natural, individual ability for it as the class progressed. Therefore, additional studies that offer the treatment for a longer period of time, or conducting a study with a different design featuring a control group, may yield stronger results more in line with those of Brittain et al. (2007), Elliot et al. (2010), Nash (2006), Wolff (2006), and others.

Implications for Research and Practice

Although there was no significance in the case of the second research question, there is a number of researchers who have found that the use of coursecasts may, in fact, help students with their anxiety, particularly when it is caused by a lack of language proficiency (Abdous et al., 2009; Beheler, 2007; Bell et al., 2007; Brittain et al., 2006; Carvalho et al., 2008; Elliot et al., 2009; Fietze, 2009; Glogoff, 2009; IDG Global Solutions, 2006; Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Nash, 2006; Ormond, 2008; Ractham & Zhang, 2006; Reynolds, 2005; Scutter et al., 2010; Wolff, 2006). This study has impacted the field by providing additional insights on how to use technology to alleviate one of the most common issues faced by international students. A contribution of this study, therefore, is

to provide data to support the use of podcasts in education. Again, and because this study was conducted in a formal manner and was not the result of anecdotal observation, much can be learned about reducing anxiety through the use of technology in a natural setting.

Although there was no significance in this second research question, and the researcher failed to reject the null hypothesis, English proficiency seems to shape perceived classroom anxiety. As it was explained earlier, Table 17 shows that the mean scores for anxiety as measured by the FLCAS and the CADC, as well as those for marginality and isolation as measured by the CADC, experienced a shift in the hypothesized direction between the pretest and the posttest. Furthermore, as it was also explained earlier, there was no correlation between self-reported English proficiency and marginality and isolation as measured by the CADC, but there was significance between the self-reported English proficiency and classroom-specific anxiety in communication apprehension as measured by the FLCAS (see table 18). Consequently, it would be interesting to further explore this correlation in larger samples or by administering the treatment for a longer period of time. Also, Chapter 4 showed that there was significance in the pretest and posttest scores between English proficiency and perceived classroom anxiety (see Tables 19 & 20).

Therefore, and similar to the case of the first research question, these results seem in line with what was reviewed in the literature. According to Pan and Tang (2005), classroom anxiety occurs when students have difficulties to understand and absorb the material presented in class. More specifically, the authors discussed how the pace of instruction, the professor's attitude, and the fear to fail to grasp all that is needed from the

class creates anxiety in most students. As the authors noted, most students benefitted

from podcasts as a way to digest the material better. The participants in the study also

mentioned how the coursecasts made them feel less anxious about missing class material

or misunderstanding the professor since they had the opportunity to review it again (see

Table 14).

In fact, the opportunity to review the material presented in class was also the

subject of Evans' (2007) study, which found that students consider coursecasts a more

effective method to review and prepare for exams than books. Partly, this was also

because of the flexibility that coursecasts gave them to review anywhere and at any time.

This was also confirmed by this study, by a large portion of the participants, who noted

that coursecasts made studying more fun and convenient because they could listen to

them whenever they wanted. Table 14, for example, shows that 17 out of 53 participants

particularly liked the fact that "podcasts made studying more fun and convenient because

I could listen to them at any time."

Fritz (2007) noted that the repetitive nature of coursecasts helps students learn by

reinforcing information in different ways and at different times. According to the author,

"the more repetitious information is presented to students, the more likely chunks of

information will be transmitted to a student's long-term memory" (p. 19). As explained

earlier, fear of failure plays a big role in stressing students while preventing their

acculturation. Therefore, anything that helps them to increase their sense of self-efficacy

in class is likely to reduce their levels of anxiety. This study showed that students clearly

saw an academic benefit in downloading available coursecasts (see Table 11, 13 & 14).

In Table 11, for example, 33 out of 53 participants expressed that coursecasts had positively impacted their learning experience, with 10 out of 53 saying that they had strongly impacted them. In Table 13, half of the participants reported that coursecasts had allowed them to improve their final grade. In Table 14, 39 out of 53 participants reported reduced anxiety thanks to the available coursecasts.

As it was explained in the implications for the first research question, there is a possibility that this study may have experienced a Type II error, which suggests further exploration of the coursecasting option. This would be advised in order to avoid not implementing a practice that might help to reduce feelings of anxiety among international students. As it was suggested earlier, more studies would allow educators to make better decisions as to how to implement the technology. Furthermore, given the results reported in Chapter 4 and discussed above, implications for future research regarding the practical use of coursecasts to reduce feelings of anxiety, especially in a classroom setting, include the following:

1. It would be interesting to further understand whether coursecasts play a role in reducing general anxiety by looking specifically at language anxiety. Therefore, conducting a study similar to that of Evans (2007), but with international students would be enlightening.

2. Guided by the results of Carr et al. (2003), it would be interesting to see if there is a relationship between the use of coursecasts to reduce language and classroom anxiety and demographic characteristics such as gender and nationality, or even learning

differences and physical disabilities. This would help educators to target high risk populations, if they exist, more effectively.

3. It would be interesting to study whether in-class participation and overall self-assurance improves when students are exposed to a coursecasting treatment. This would hint to a reduction in situation-specific anxiety.

4. It would be useful to see whether there is any relationship between the reduction of situation-specific, classroom anxiety and social anxiety. If that were the case, educators could play an active role in helping students acculturate not only academically, but also socially.

Conclusions on the Third Research Question

The third research question is as follows: What impact does the availability of downloadable coursecasts have on international students' perception of marginality and isolation as measured by the CADC?

According to the literature review, students who are acculturated show lower levels of anxiety and, thus, of marginality. One of the key factors in helping these students acculturate seems to be their language proficiency. Zhao (2006), cites how language misunderstandings and misinterpretations often leave students' feeling frustrated and useless, which according to Badur (2003) and Yeh (2003) can make them develop feelings of marginality that leave them isolated socially. As it is suggested by the literature, it is important for educators to find ways to ease international students' acculturation, since language anxiety and communication apprehension can cause feelings of marginalization and isolation that become very evident in classroom settings

(Cigularova, 2004-2005; Kwon, 2009; Woodrow, 2006). Hsieh's (2007) study, for example, showed how an international student's lack of English language skills caused her to withdraw all participation in class, to the point that her own instructors considered her incompetent, a behavior that further increased the student's feelings of marginalization and isolation. Because feelings of marginality and isolation are usually associated with language comprehension deficiencies that are mostly oral, the literature suggested that institutions need to explore ways to reduce and/or eliminate these feelings as soon as students enter the system (Cigularova, 2004-2005; Goshi, 2005; Kwon, 2009; Lee & Rice, 2007; Poyrazli & Grahame, 2007; Sümer et al., 2008; Woodrow, 2006).

The possible relationship between downloadable coursecasts and self-perceived marginality and isolation was, therefore, suggested by the literature. More specifically, researchers such as Belanger (2007), Bell et al. (2006), Carvalho et al. (2008), Fietze (2009), IDG Global Solutions (2006), Kaplan-Leiserson (2005), Littlefield (2006), Manning (2005), Meng (2005), Morales and Moses (2006), Nash (2006), Ractham and Zang (2006), Reynolds (2005), Scutter et al. (2010), and Wolff (2006), suggest that available coursecasts could constitute a viable intervention to help students adjust academically because, by decreasing the students' levels of anxiety, their feelings of marginalization and isolation will also decrease. Consequently, the objective of this third research question was accomplished in the study. Nevertheless, no significant impact could be statistically established between available coursecasts and self-perceived marginality and isolation. As such, the researcher failed to reject the null hypothesis.

Although no significance could be established, Chapter 4 shows that the mean

scores of international students' perceptions of marginality and isolation as measured by

the CADC shifted in the hypothesized direction from the pretest to the posttest (see Table

17), which seems to show that the treatment had some effect, albeit insignificant. When

further analysis of dependent variables was conducted, a correlational significance was

also observed between perceptions of situation-specific anxiety, as measured by the

FLCAS, and the posttest results for marginality and isolation, as measured by the CADC

(see Table 18). As noted in Chapter 4, when classroom anxiety decreases, the feelings of

marginality and isolation seem to do too. Although no prediction can be assumed out of

this correlational significance, the coursecasting treatment may have affected the

perceptions of anxiety which, in turn, may have contributed to reduce the feelings of

marginality and isolation. When viewed from this perspective, these results do not

contradict was reviewed in the literature and beg for further research. Additionally,

descriptive statistics in Chapter 4 seem to show that at least some participants (7 out of

53) felt that the coursecasts helped them develop their English skills, which according to

the literature reduces feelings of isolation and marginalization.

Implications for Research and Practice

Although there was no significance in the case of the third research question,

there is a number of researchers who have found that, similarly to what was found with

anxiety, the use of coursecasts may, in fact, help students with their feelings of

marginalization and isolation (Abdous et al. 2099; Carvalho et al. 008; Kaplan-Leiserson,

2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Nash,

2006; Ractham & Zhang, 2006; Reynolds, 2005). This study has impacted the field by providing additional insights on how to use technology to alleviate the feelings of marginality and isolation that are commonly faced by international students when experiencing anxiety in the classroom. Its main contribution, therefore, is to provide data to support the use of podcasts to reduce the anxiety that causes feelings of marginality and isolation in international students. By conducting a formal study on what has traditionally been reported anecdotally, much was learned about reducing the feelings of marginality and isolation through the use of technology in a natural setting.

The practical implications of this third research question are very much in line with what had been reviewed in the literature. As was explained for the second research question, the feelings of marginality and isolation normally come as a result of anxiety, and anxiety is usually a result of deficient language skills. Marginality and isolation, therefore, can be considered a consequence of untreated anxiety.

As was explained in the study, when students are unable to communicate effectively because of a language deficiency, these students experience high stress and anxiety levels that make them retract from further contact for fear of not being understood, thus leaving them to feel marginalized and isolated from the group (Bruen, 2002; Dozier, 2001; Feizi, 1990; Goshi, 2005; Hinchcliff-Pelias & Greer, 2004; Kwon, 2009; Mills et al., 2006; Swanson, 2006; Sümer et al., 2008; Woodrow, 2006). More specifically, Badur (2003) described marginality as a feeling of inadequacy to communicate successfully due to language comprehension deficiencies (mostly oral), and it seems to be a phase of transcultural adjustment that students experience when

immersed in another culture. According to Yeh (2003), marginality is one of the four adaptation strategies of the acculturation model, where a lack of participation in the practices of the dominant group becomes the norm. Equally, isolation occurs when a failure to adjust to a different culture prevents students from participating in the social practices of the dominant group (Trice, 2007). According to Trice (2007), isolation can be caused by language barriers, over dependence on co-nationals or a lack of time to establish friendships.

Although the pre-and-post questionnaire did not ask specifically about marginalization and isolation, it was clear that students found that the coursecasts reduced their anxiety and made them feel better prepared for class. It can be assumed that once a student feels prepared for class, he or she will not refrain from actively participating in it, which means that they would not feel marginalized or isolated from the group.

As it was explained in the implications for the first and second research questions, there is a possibility that this study may have experienced a Type II error, which suggests further exploration of the coursecasting option. This would be advised in order to avoid not implementing a practice that might help to reduce feelings of marginalization and isolation among international students. As it was suggested earlier, more studies would allow educators to make better decisions as to how to implement the technology. Furthermore, given the results reported in Chapter 4 and discussed above, implications for future research regarding the practical use of coursecasts to reduce feelings of marginalization and isolation include the following:

1. It would be interesting to explore the levels of in-class participation among international students with and without available coursecasts, or in a before-and-after treatment design to see whether students felt more socially integrated after being exposed to coursecasts.

2. It would be worthwhile to compare levels of attrition among international students in classes with and without available coursecasts in order to assess their effectiveness with regards to satisfaction.

3. Just like in the case of anxiety, it would be interesting to further research the possible difference in the feelings of marginality and isolation among different genders, ethnicities, nationalities, etc. and their experience with downloadable coursecasts.

Recommendations for Future Research

The present study has limitations in providing a complete understanding of how the concepts of English language proficiency, anxiety, marginalization and isolation are shaped by the availability of downloadable coursecasts. The possibility of a Type II error has been amply discussed earlier in this chapter, and its acknowledgement has anchored each of the hypotheses' conclusions, implications, and recommendations. As disclosed earlier in the study, is the lack of a control group has posed an important limitation. Although the option of conducting the study again with a control group has been suggested in the implications above, there are some benefits associated with not having had a control group. As mentioned by Pan and Tang (2004), a "one group, pretest-posttest quasi-experimental design is frequently used in the social sciences […] not

because researchers in the social sciences lack the knowledge of how to construct true experiments but because they understand the limitations of statistical inference in field settings" (p. 156). The authors also explain that there would be ethical concerns in conducting an educational study that withholds a treatment that may benefit only one group of students. As they argue, regardless of the lack of causality, quasi-experimental design should not prevent educators from incorporating potentially effective teaching methods. This becomes particularly important in this case, where no statistical significance was found, and yet, upon further examination of the dependent variables, some significance emerged. Therefore, a causal-comparative study could provide the necessary control without depriving students from a possibly beneficial treatment.

Although recommendations for future research were included separately for each research question, there were some other general questions outside of this study's focus that, nonetheless, were stimulated by this study. These include:

1. To what extent does familiarity with podcasting prevents or enhances the downloading of coursecasts regardless of their possible benefit to students?

2. To what extent does a student's self-direction towards learning encourages or decreases his/her desire to download coursecasts?

3. To what extent does a student's personality shapes his/her initial tendency towards feeling anxious, marginalized and isolated?

4. To what extent does the discipline of the class entices or deters international students from downloading coursecasts?

5. To what extent does the perceived difficulty of the class entices or deters international students from downloading coursecasts?

6. To what extent would an international student choose to enroll in a course that has a coursecast option versus another one that does not?

7. To what extent do students who download available coursecasts improve their actual grades in the course?

At the same time, the findings of the study were used as a springboard to question broader practices in education. Rappa (2006) explains that podcasting may offer some challenges to professors depending on the type of course subject they teach. For example, he mentions that some professors may not feel comfortable with them, while he sees a big benefit in those beginning in the profession. Another trend he foresees in the use of podcasts in education involves a practice where universities provide a subscription model with a menu of coursecasts to choose from. Although some universities currently offer selected coursecasts to the non-student community, Rappa is talking about having current students subscribe, which would work well in distance learning, for example. He mentions how universities could partner with advertisers to provide a short introductory commercial prior to the beginning of the coursecast.

Another question that arose as a result of the study involved the role of the university and the professor in actively and consciously helping international students to reduce their acculturative stress. As suggested by Poyrazli, Kavanaugh, Baker, and Al-Timimi (2004), anything that helps to increase the level of English language proficiency for international students will benefit them by helping them to adjust socially, thus

reducing their acculturative stress. According to Furnham (2004), any program that helps international students to acculturate better should be offered year-round and not only selectively, especially if the students are considered vulnerable. Often times, it is believed that educators should wait for students to seek their help. Nevertheless, the author suggests that universities should be proactive in seeking these vulnerable students, many of whom will find it hard to express what will help them to reduce their anxiety or feelings of marginality and isolation. Coursecasts seem to be a good way to offer language support in a way that allows more individual interaction between students and faculty, as suggested by Kwon (2009). As the author explains, it is important for educators and educational institutions to take a more active role in researching the expectations and specific problems that international students face.

Therefore, some additional questions regarding practice, procedures, and behaviors in education include the following:

1. Are there academic disciplines that are more conducive to beneficial coursecasts? For example, is it as beneficial to coursecast a math class than an English class?

2. Would professors be more willing to coursecast their courses if they had training and/or help in doing so, or are there other barriers preventing them from adopting the technology?

3. Should universities adopt coursecasts across the border as a measure to support international students in their acculturation efforts? Would this measure make universities more truly welcoming of international students?

The findings of the study further seem to encourage further research with respect to coursecasting. More specifically, further research should explore:

1. Additional innovative uses for coursecasting, including the exploration of ways to meaningfully integrate it "into the curricula, with a clear purpose and rationale for its instructional use" (Abdous et al., 2009, p. 78).

2. Compare the effectiveness of coursecasts versus vodcasts (coursecasts with video) as per student preferences and ease of use, especially among international students.

3. Explore ways to motivate students to download coursecasts, for example, by training students to be proficient in the technology and adding bonus material to be found only in the coursecasts.

4. Train professors on tips to adjust their teaching so as to maximize their coursecasting skills. According to Bell et al. (2007), it is important to maintain a "live feel" and to "inject personality" into the coursecasts (p. 76).

5. Explore the effectiveness of supplemental podcasts in addition or in conjunction with more traditional, repetitive podcasts.

6. Increase the level of partnership that exists between student services (i.e. international student services, counseling, health services, etc.) and professors in order to educate faculty regarding ways in which they can actively help international students to acculturate, for example, through the use of their coursecasts.

Concluding Summary

This study investigated the impact of available coursecasting in international students' perceptions of marginality and isolation, anxiety, and English proficiency and comprehension, through a one-group, pretest-posttest design. The review of the literature suggested that the lack of English language comprehension and proficiency were associated with higher levels of anxiety, as well as with feelings of marginalization and isolation in these students, affecting their academic performance, satisfaction, and retention (Athos, 2005; Badur, 2003; Bruen, 2002; Campbell, 2005; Dao et al., 2007; Dozier, 2001; Feizi, 1990; Goshi, 2005; Kaveh, 1990; Kwon, 2009; Ladd & Ruby, 1999; Lee & Rice, 2007; Lum, 2006; Mills, Pajares & Herron, 2006; Swanson, 2006; Sümer et al., 2008; Van Nelson et al., 2004; Woodrow, 2006; Yeh, 2003; Yildiz & Belchemeyer, 2003; Zhai, 2002; Zhao, 2006). The literature also suggested that making coursecasts available could decrease the students' levels of anxiety, as well as their feelings of marginalization and isolation, by improving their language comprehension and proficiency (Abdous et al., 2009; Beheler, 2007; Bell et al., 2007; Brittain et al., 2006; Carvalho et al., 2008; Elliot et al., 2009; Fietze, 2009; Glogoff, 2009; IDG Global Solutions, 2006; Kaplan-Leiserson, 2005; Littlefield, 2006; Manning, 2005; Meng, 2005; Morales & Moses, 2006; Nash, 2006; Ormond, 2008; Ractham & Zhang, 2006; Reynolds, 2005; Scutter et al., 2010; Wolff, 2006). The study tested the hypotheses through the administration of the Cultural Adjustment Difficulties Checklist (CADC), which measures the acculturative distress that causes feelings of marginalization and isolation; the Modified Foreign Language Classroom Anxiety Scale (FLCAS), which

measures situation-specific anxiety with regards to communication apprehension in the classroom; and the Self Reported Fluency of English Scale (SFRES), which assesses the individuals' perception of their English fluency. The study also administered a pre-questionnaire and a post-questionnaire to gather students' experiences regarding the coursecasting treatment, as well as to gather demographic information about participants.

The study was organized in five chapters. Chapter one presented an introduction to the background of the problem and the related research with regards to issues affecting international student retention. These issues revealed that a lack of English language proficiency caused these students anxiety, which prevented them from acculturating; making them, in turn, to feel marginalized and isolated. It also presented the economic and political importance of welcoming and retaining international students for American educational institutions. Chapter one also addressed the need for the study and included a review of situated learning as the theoretical background that guided the research. Finally, chapter one introduced the research questions it set out to investigate, its significance, any assumptions and limitations, and a review of significant terms.

Chapter two provided an extensive review of the literature in addition to providing the philosophical perspective guiding the study. The review of the literature addressed the issues shaping the cultural adjustment of international students, which served to introduce the role of language deficiencies in causing anxiety and feelings of marginalization and isolation in these students. Anxiety, marginalization and isolation were also reviewed in order to understand the nature and uniqueness of each concept, as well as to investigate the ways in which each had been researched and measured in

previous studies. Chapter two also provided an overview of podcast technology and its educational use, as well as an overview on instruments used by previous studies to measure oral comprehension and verbal fluency, marginality and isolation, and anxiety. Finally, an overview of collection measures for podcasting data was compiled in order to select the most appropriate methodology to use in the study.
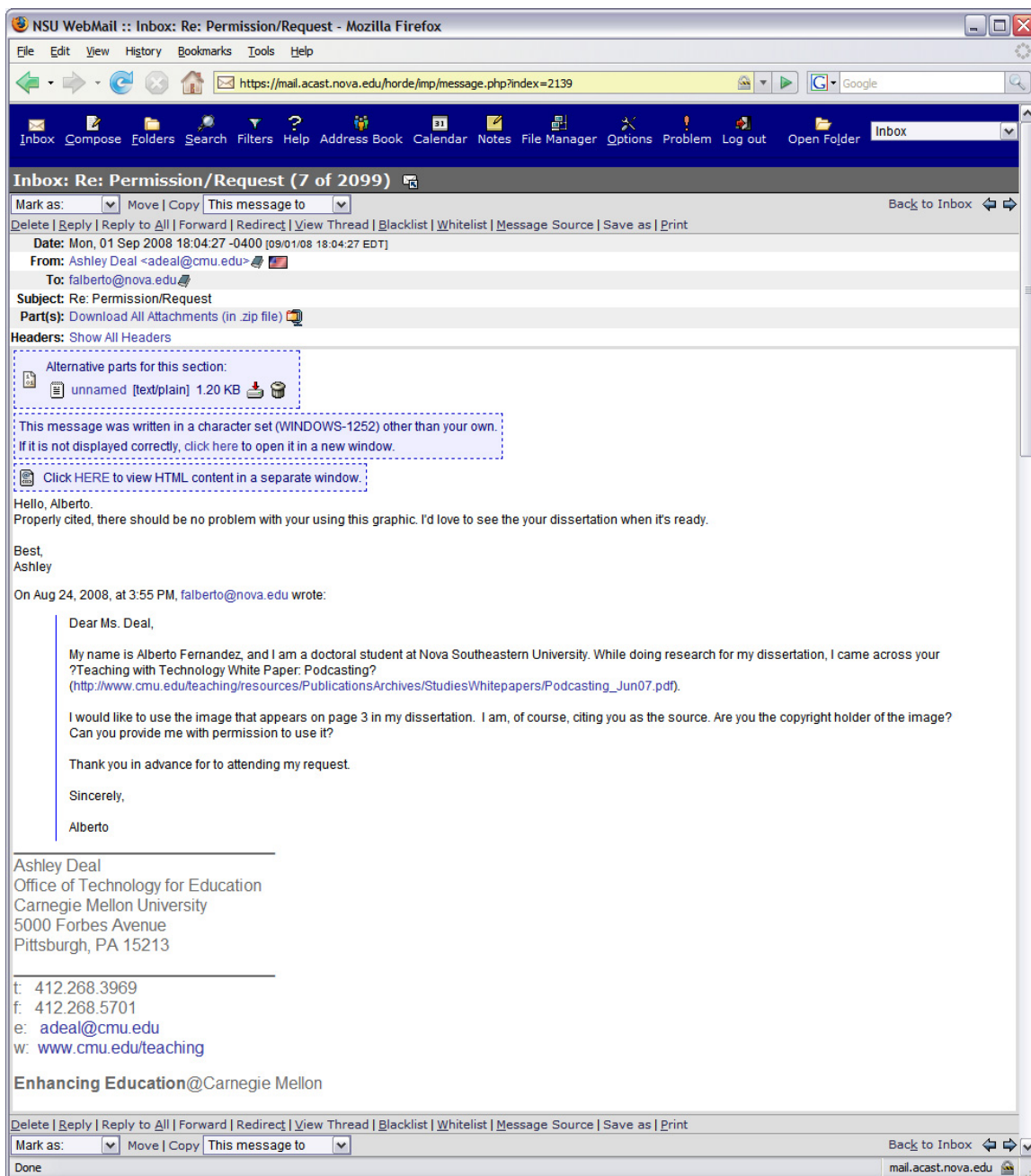
Chapter three explained the proposed methodology for the research, including the restatement of the research goals, the research questions, and the hypotheses that emerged from each research question. The sample selection was explained and a description of each assessment instrument was included together with an overview of previous studies that had used them in their design. The research design chosen for the study, a pre-experimental approach with the quantitative paradigm as its primary methodology, was introduced with its appropriate rationale. As explained earlier, a one-group, pretest-posttest design was chosen because of its appropriateness in naturalistic settings. This chapter also explored the validity and reliability of the design, and presented the procedures and data collection methods that were used, as well as how the data would be analyzed.

Chapter four contained the results of the quantitative measures and a discussion of descriptive and inferential statistics. A number of tables were included in the chapter to better illustrate the results. Each one of the hypotheses was tested, and in each case, the researcher failed to reject the null hypothesis because no significance was found. It was thought that these results were possibly due to limited exposure time to the coursecasting treatment.

Chapter five, therefore, concludes this study. It explains the relevance and significance of the results found in chapter four, and it provides conclusions and implications drawn from the results of the study. The chapter also presents recommendations for future research, as well as suggestions for educators and educational institutions. Although no significant impact could be established between available coursecasts and international students' perceptions of marginality and isolation, anxiety, and English language proficiency and comprehension, the findings regarding the analysis of the dependent variables seem to present interesting implications for educators and educational institutions alike.

Appendix A

Copyright Holder Permission to Use Figure 3

Appendix B

Copyright Holders Permission to Use Figure 4

Appendix C

Copyright Holder Permission to Use the Self-Reported Fluency of English Scale

(SRFES) Instrument

Appendix D

Copyright Holder Permission to Adapt the Self-Reported Fluency of English Scale

(SRFES) Instrument for Online Use

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https://mail.acast.nova.edu - NSU WebMail :: Inbox: Re: Help - Mozilla Firefox

Date: Mon, 03 Nov 2008 10:53:57 -0800 [11/03/08 13:53:57 EST]
From: Christine Jean Yeh <cjyeh@usfca.edu>
To: falberto@nova.edu
Subject: Re: Help
Priority: normal

Sounds fine. Thanks for letting me know.

CJY

----- Original Message -----
From: falberto@nova.edu
Date: Monday, November 3, 2008 4:30 am
Subject: Re: Help
To: Christine Yeh <cjyeh@usfca.edu>

> Dear Dr. Yeh,
>
> I also need to ask you another thing. Since I am planning to collect data in different states, I was hoping
> to do it online in order to facilitate the way in which participants complete the checklist. Therefore, I
> wanted to ask you if you would give me permission to put the questions in a password-protected Web
> site. Authorized users will only have access to see the questions (and answer them) after they enter a
> one-time password to the site. Therefore, after they complete the checklist, they will not be allowed to do
> it again or to see the questions. Here is the link to the Website to get a better idea.
>
> http://home.fau.edu/alberto/web/dissertation/
>
> Regards,
>
> Alberto
>

Done   mail.acast.nova.edu

Appendix E

Self-Reported Fluency of English Scale (SRFES) Instrument

Instructions: Indicate your opinion about each statement by selecting the alternative below that best indicates the extent to which you agree or disagree with that statement.

1. What is your current level of English language fluency? _____
   (1) Very Poor   (2) Poor   (3) Somewhat good   (4) Good   (5) Very Good

2. How comfortable are you communicating in English? _____
   (1) Not at all Comfortable   (2) A Little Comfortable
   (3) Somewhat Comfortable   (4) Comfortable   (5) Very Comfortable

3. How frequently do you communicate in English? _____
   (1) Never   (2) Rarely   (3) Sometimes   (4) Frequently   (5) Always

Appendix F

Copyright Holder Permission to Use the Cultural Adjustment Difficulties Checklist

(CADC) Instrument

⚠ **Antioch New England**
G R A D U A T E   S C H O O L

Gargi Roysircar-Sodowsky, Ph.D.
Director, Multicultural Center for Research & Practice
Department of Clinical Psychology

40 Avon Street
Keene, NH   03431-3516
(603) 357-3122 ext. 342
FAX (603) 357-0718
E-mail:
g_roysircar-sodowsky@antiochne.edu

Thank you for your purchase of the Cultural Adjustment Difficulties Checklist (CADC). I have enclosed the instrument for your use as outlined in the Agreement for Procedural Use.
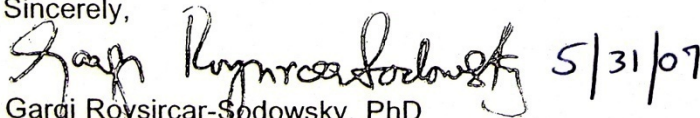
For scoring the CADC (total number of items = 59) is as follows:

Subscale 1 (35 items): Acculturative Distress, includes the following items: 3, 4, 6, 9, 14, 16, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 33, 37, 39, 40, 41, 42, 43, 44, 46, 47, 49, 50, 52, 53, 57, and 59.

Subscale 2 (24 items), Intercultural Competence, includes these items: 1, 2, 5, 7, 8, 10, 11, 12, 13, 15, 17, 24, 32, 34, 35, 36, 38, 45, 48, 51, 54, 55, 56, and 58. All items in Subscale 2 are reverse scored.

Best wishes in your research endeavors.

Sincerely,

Gargi Roysircar-Sodowsky, PhD
Professor

Appendix G

Copyright Holder Permission to Adapt the Cultural Adjustment Difficulties Checklist

(CADC) Instrument for Online Use

Alberto, I give you permission to use my instrument, the CADC, in a password protected Web site. Thank you for seeking this request.

Gargi Roysircar, Ph.D.
Professor of Clinical Psychology
Director, Multicultural Center for Research and Practice
Editor, Journal of Multicultural Counseling and Development
Antioch University New England
40 Avon Street
Keene, NH 03431-3552
Ph. (603) 283-2186 / FAX (603) 357-1679
http://www.multiculturalcenter.org
http://www.multiculturalcenter.org/jmcd/ (JMCD journal)

----- Original Message -----

Hi, Kristen,

It was very nice to talk to you on the phone. I know that Dr. Roysircar is extremely busy, but my chair requires me to get her authorization in writing (by email) to move forward. If you could help me, that would be great. Thanks so much for your help!
Bye,

Alberto

From: Alberto Fernandez
Sent: Monday, December 08, 2008 1:18 PM
To: g_roysircar-sodowsky@antiochne.edu
Subject: Permission
Importance: High

Hi, Dr. Roysircar-Sodowsky,

I have not received an e-mail from you authorizing me to use the instrument in a password protected Web site, and I was wondering if you have received my e-mail messages. As I mentioned on the phone, my dissertation chair is requiring your permission to allow me to move forward. I know that you are very busy, so I really appreciate your help.

Regards,

Alberto

----- Forwarded message from falberto@nsu.nova.edu -----
Date: Mon, 24 Nov 2008 22:02:26 -0500
From: falberto@nsu.nova.edu
Reply-To: falberto@nsu.nova.edu
Subject: Fwd: Re: Another thing...
To: g_roysircar-sodowsky@antiochne.edu

Hi, Dr. Roysircar-Sodowsky,

I have not received an e-mail from you authorizing me to use the instrument in a password protected Web site. As I mentioned, my dissertation chair is requiring that to allow me to move forward. I know that you are very busy, so I really appreciate your help.

Regards,

Alberto

Quoting falberto@nsu.nova.edu:

> Hi, Dr. Roysircar-Sodowsky,
>
> It was very nice to talk with you today. I appreciate very much all your help. As I mentioned to you in our
> phone conversation, I am planning to collect data in different states, I was hoping to do it online in order to
> facilitate the way in which participants complete the checklist. Therefore, I wanted to ask you if you would
> give me permission to put the questions in a password-protected Web site.
>
> Authorized users will only have access to see the questions (and answer them) after they enter a one-time
> password to the site. Therefore, after they complete the checklist, they will not be allowed to do it again or to
> see the questions. Here is the link to the Web site to get a better idea:
>
> http://home.fau.edu/alberto/web/dissertation/instruments.htm
>
> Regards,
>
> Alberto

Appendix H

Cultural Adjustment Difficulties Checklist (CADC) Instrument

Instructions: This test attempts to understand some personal-social experiences of an individual who is culturally different from White Americans. Please read the following statements and rate how they apply to you on a scale from 1 (a very inaccurate description of you) to 6 (a very accurate description of you). There is no right or wrong answer. The best answer reflects your personal experience.

Please mark only one number for each description. The scale indicates the following:

       6 – A very accurate description of you
       5 – An accurate description of you
       4 – A somewhat accurate description of you
       3 – A somewhat inaccurate description of you
       2 – An inaccurate description of you
       1 – A very inaccurate description of you

1. _____ having opportunities for social get-togethers
2. _____ finding it easy to confront people from your cultural/nationality/ethnic group
3. _____ having conflicts over cultural values (e.g., dating, intercultural marriage, food, clothes, religion, education, respectful behavior towards elders, etc.) with members of immediate and/or extended family
4. _____ having conflicts with people who have power over you
5. _____ having friends from other cultural/nationality/ethnic groups
6. _____ feeling jealous of the successes of some members of your cultural/nationality/ethnic group
7. _____ feeling comfortable in joining a group of people or a group conversation
8. _____ having close friends
9. _____ believing that people from your cultural/nationality/ethnic group who grew up in America have inferior values
10. _____ having friends among White Americans
11. _____ being confident when expressing personal opinions that contradict others' opinions
12. _____ having friends from your cultural/nationality/ethnic groups
13. _____ feeling good about your abilities
14. _____ thinking about taking your life

15. _____ eating as much as you usually do
16. _____ feeling sadder now than you usually do
17. _____ feeling good about your physical appearance
18. _____ having tried to take your life (e.g., with overdose of sleeping pills or weapons)
19. _____ feeling bad about not getting a date
20. _____ feeling more guilty (about having done something wrong) now than you usually do
21. _____ drinking alcohol to cope with difficulties
22. _____ feeling more nervous now than you usually do
23. _____ delaying doing things (e.g., waiting for a later time) now more than you usually do
24. _____ generally being able to make decisions
25. _____ showing more anger now than you usually do
26. _____ having more stomach-aches now than you usually do
27. _____ showing violence
28. _____ having financial difficulties
29. _____ having more backaches now than you usually do
30. _____ having more headaches now than you usually do
31. _____ upset with too much academic/professional work
32. _____ happy at place of work/employment
33. _____ loss of interest in studying or doing work
34. _____ showing good performance (e.g., good grades or evaluations)
35. _____ can concentrate on your work
36. _____ being sure that your major/career matches your interests
37. _____ experiencing high performance anxiety (e.g., during tests, evaluations, and difficult tasks)
38. _____ happy with your academic major/career
39. _____ worried about not performing at the level of the very best people (like getting an A or a big promotion)
40. _____ feeling more overworked now than you usually do
41. _____ feeling that you do not want to belong to either the White American group or to your cultural/nationality/ethnic group
42. _____ feeling confused about how you, as a man or woman, should behave when with people from your cultural/nationality/ethnic group
43. _____ feeling angry toward people from your own cultural/nationality/ethnic group

44. _____ experiencing conflicting feelings of two-ness, of being like a White American but also being like a person from your cultural/nationality/ethnic group
45. _____ having pride in your own culture
46. _____ believing that your cultural/nationality/ethnic group is inferior to the White American group
47. _____ feeling confused about how you, as a man or woman, should behave when with White Americans
48. _____ being certain that you are a worthy contributing member of the U.S. society
49. _____ feeling as though people of the White American society are better looking than people of your cultural/nationality/ethnic group
50. _____ wanting to belong to the White American group that has prestige and power
51. _____ finding it easy to adjust to either the White American society or to the society of your cultural/nationality/ethnic group
52. _____ feeling that you live on the margins of two cultures, being distant from the White American group and from your cultural/nationality/ethnic group
53. _____ feeling angry toward White Americans
54. _____ feeling accepted by people from your cultural/nationality/ethnic group
55. _____ being certain that you are a worthy contributing member of your own cultural/nationality/ethnic group
56. _____ feeling accepted by White Americans
57. _____ blaming White American society for not accepting your cultural/nationality/ethnic group
58. _____ respecting most people from your cultural/nationality/ethnic group
59. _____ feeling caught between the White American culture and the culture of your cultural/nationality/ethnic group

Appendix I

Copyright Holder Permission to Use the Foreign Language Classroom Anxiety Scale

(FLCAS) Instrument

Appendix J

Copyright Holder Permission to Adapt the Foreign Language Classroom Anxiety Scale

(FLCAS) Instrument for Online Use

```
https://mail.acast.nova.edu - NSU WebMail :: Inbox: Re: Help - Mozilla Firefox
Date: Fri, 14 Nov 2008 12:49:56 -0600 [11/14/08 13:49:56 EST]
From: "Elaine K. Horwitz" <horwitz@mail.utexas.edu>
  To: falberto@nova.edu
Subject: Re: Help

Dear Mr. Fernandez,

I am sorry that I have been so hard to reach.  I have been traveling a lot in the last 2 months.
As long as the website is password protected, you have my permission to use the FLCAS in your study.
I am looking forward to your results.  Please keep me posted.

Best wishes,
Elaine Horwitz

  Dear Dr. Horwitz,

  I don't know if you had a chance to check my last e-mail (see below). I know that you already gave me
  permission to use your instrument, but since I am planning to put it online (in a password-protected Web
  site), my dissertation chair insists that I should gain your permission again for doing that. Can you let
  me know if this is OK with you?

  Regards,

  Alberto

  Quoting falberto@nsu.nova.edu:

    Dear Dr. Horwitz,

    I also need to ask you another thing. Since I am planning to collect data in different states, I was
    hoping to do it online in order to facilitate the way in which participants complete the checklist.
    Therefore, I wanted to ask you if you would give me permission to put the questions in a password-
    protected Web site. Authorized users will only have access to see the questions (and answer them) after
    they enter a one-time password to the site. Therefore, after they complete the checklist, they will not
    be allowed to do it again or to see the questions. Here is the link to the Website to get a better idea.

    http://home.fau.edu/alberto/web/dissertation/

    Regards,

    Alberto

Done                                                                              mail.acast.nova.edu
```
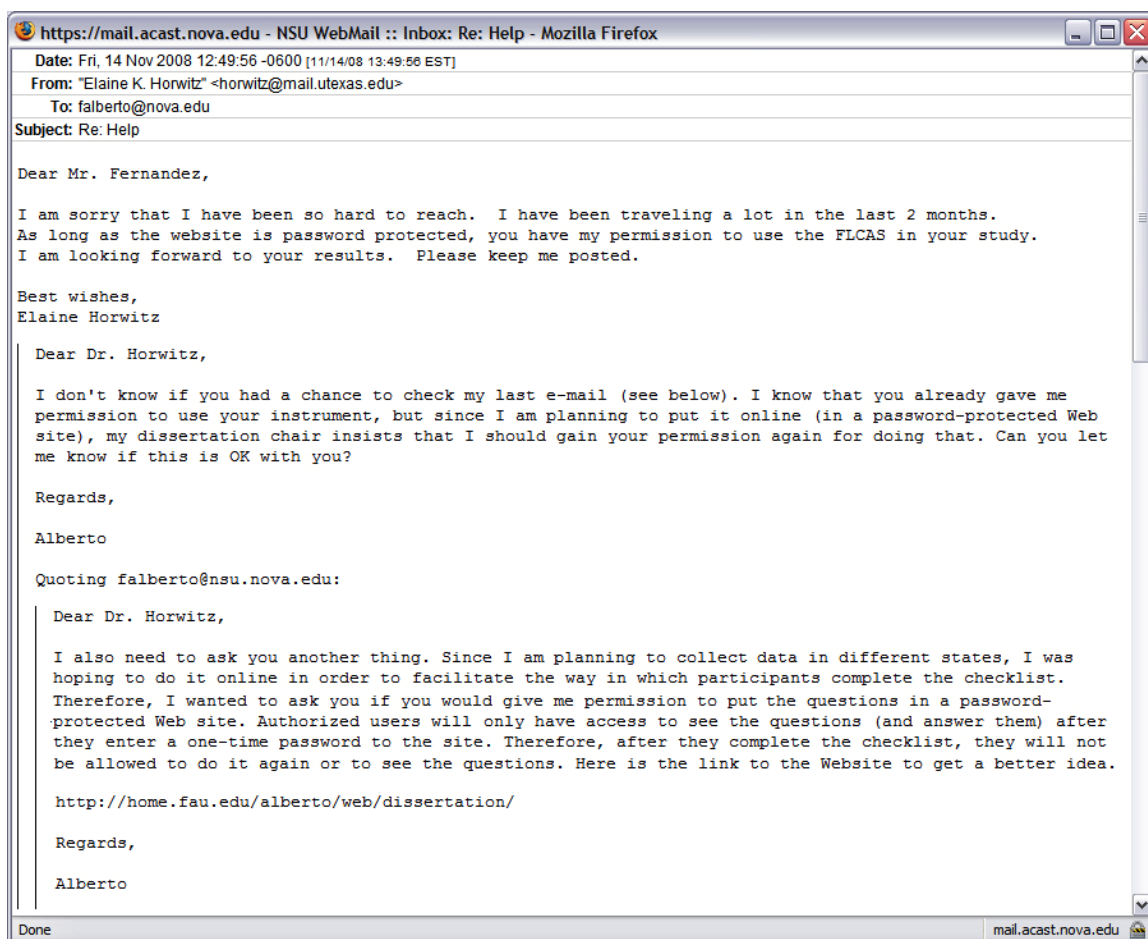
Appendix K

Copyright Holder Permission to Modify the Foreign Language Classroom Anxiety Scale
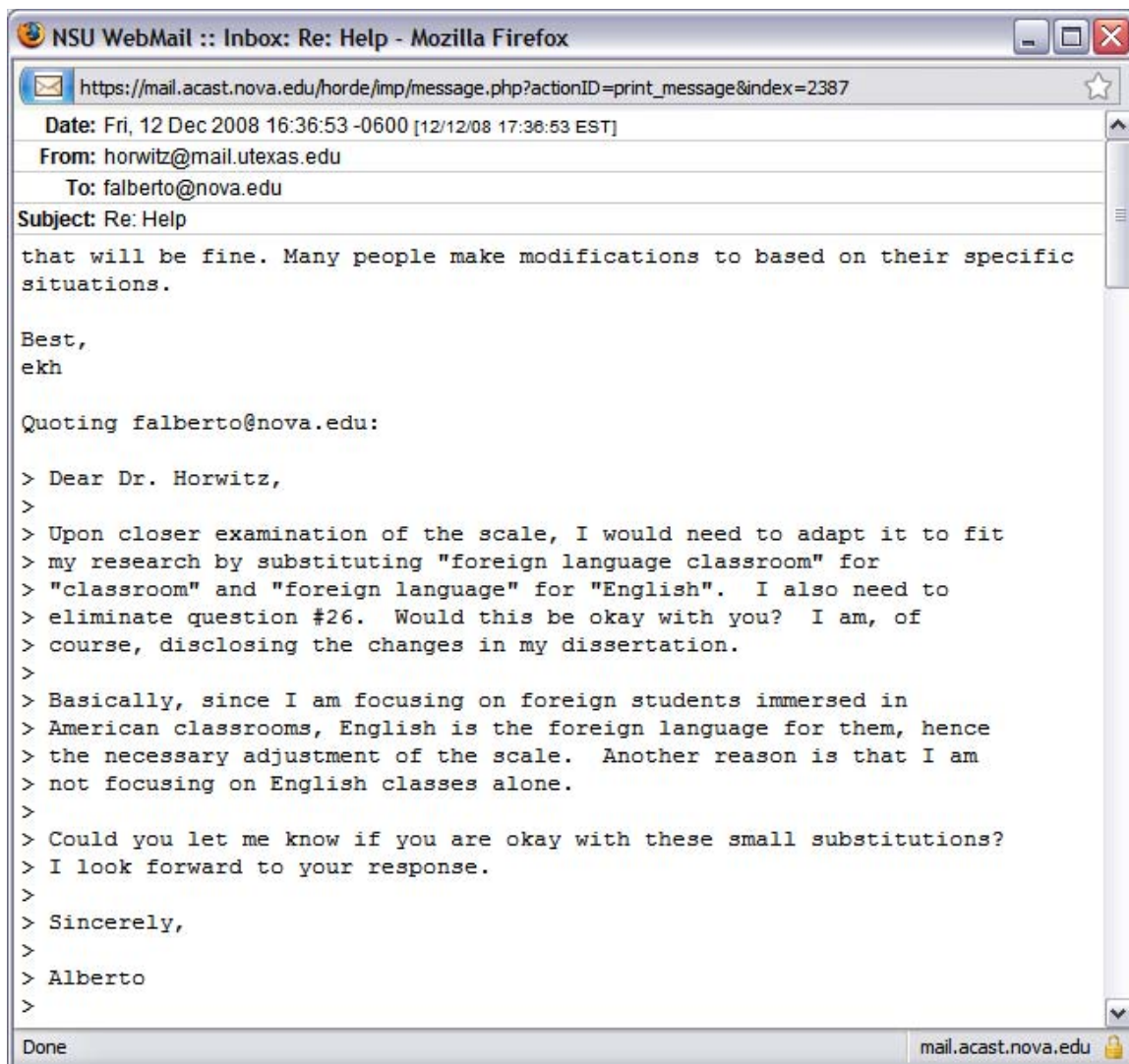
(FLCAS) Instrument

NSU WebMail :: Inbox: Re: Help - Mozilla Firefox

https://mail.acast.nova.edu/horde/imp/message.php?actionID=print_message&index=2387

Date: Fri, 12 Dec 2008 16:36:53 -0600 [12/12/08 17:36:53 EST]
From: horwitz@mail.utexas.edu
To: falberto@nova.edu
Subject: Re: Help

that will be fine. Many people make modifications to based on their specific
situations.

Best,
ekh

Quoting falberto@nova.edu:

> Dear Dr. Horwitz,
>
> Upon closer examination of the scale, I would need to adapt it to fit
> my research by substituting "foreign language classroom" for
> "classroom" and "foreign language" for "English". I also need to
> eliminate question #26. Would this be okay with you? I am, of
> course, disclosing the changes in my dissertation.
>
> Basically, since I am focusing on foreign students immersed in
> American classrooms, English is the foreign language for them, hence
> the necessary adjustment of the scale. Another reason is that I am
> not focusing on English classes alone.
>
> Could you let me know if you are okay with these small substitutions?
> I look forward to your response.
>
> Sincerely,
>
> Alberto
>

Done   mail.acast.nova.edu

Appendix L

Modified Foreign Language Classroom Anxiety Scale (FLCAS) Instrument

Instructions: Indicate your opinion about each statement by selecting the alternative below that best indicates the extent to which you agree or disagree with that statement.

1. I never feel quite sure of myself when I am speaking in English in my class.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

2. I don't worry about making mistakes in class.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

3. I tremble when I know that I'm going to be called on in class.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

4. It frightens me when I don't understand what the teacher is saying in English.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

5. It wouldn't bother me at all to take more classes in English.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

6. During class, I find myself thinking about things that have nothing to do with the course.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

7. I keep thinking that the other students are better at speaking in English than I am.
   □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
   □ Disagree Strongly   □ Disagree

8. I am usually at ease during tests in my class.
   □ Strongly Agree □ Agree □ Neither Agree nor Disagree
   □ Disagree Strongly □ Disagree

9. I start to panic when I have to speak without preparation in class.
   □ Strongly Agree □ Agree □ Neither Agree nor Disagree
   □ Disagree Strongly □ Disagree

10. I worry about the consequences of failing my class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

11. I don't understand why some people get so upset over speaking in class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

12. When I am in class, I can get so nervous I forget things I know.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

13. It embarrasses me to volunteer answers in my class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

14. I would not be nervous speaking in English with native speakers.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

15. I get upset when I don't understand what the teacher is saying.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

16. Even if I am well prepared for class, I feel anxious about it.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

17. I often feel like not going to my class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

18. I feel confident when I speak in English in class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

19. I am afraid that my teacher is ready to correct every mistake I make.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

20. I can feel my heart pounding when I'm going to be called on in class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

21. The more I study for a test, the more confused I get.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

22. I don't feel pressure to prepare very well for class.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

23. I always feel that the other students speak English better than I do.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

24. I feel very self-conscious about speaking in English in front of other students.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

25. Class moves so quickly I worry about getting left behind.
    □ Strongly Agree □ Agree □ Neither Agree nor Disagree
    □ Disagree Strongly □ Disagree

26. I get nervous and confused when I am speaking in class.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

27. When I'm on my way to class, I feel very sure and relaxed.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

28. I get nervous when I don't understand every word the teacher says.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

29. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

30. I am afraid that the other students will laugh at me when I speak in English.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

31. I would probably feel comfortable around native English speakers.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

32. I get nervous when the teacher asks questions which I haven't prepared in advance.
    □ Strongly Agree   □ Agree   □ Neither Agree nor Disagree
    □ Disagree Strongly   □ Disagree

Appendix M

Sample Contact Letter Sent to Professors

Hi, Dr. XXX,

My name is Alberto Fernandez. I am currently working on my doctoral dissertation at the Graduate School of Computer and Information Sciences at Nova Southeastern University (http://www.nova.edu). I came across your name and e-mail while researching professors that use podcast technology, and wanted to know if you would be willing to help me in my dissertation research.

My research was inspired by Duke's seminal study on widespread podcasting among their entering undergraduate class a few years ago, as well as by my personal experience as an international student.   These two interests yielded the topic of my dissertation, which focuses on "The Effects of Coursecasting in International Students' Language Comprehension, Academic Performance and Overall Course Experience." The proposed study attempts to:

1. Investigate the educational effectiveness of podcasting as a tool that might mitigate feelings of marginalization and isolation, deficiencies in language comprehension and proficiency, and anxiety.

2. Investigate whether podcasting will affect international students' academic performance and overall satisfaction.

3. Explore whether podcasting will help international students (or students for whom English is not their main language) to improve their language comprehension and proficiency, reduce isolation and marginalization, as well as their anxiety.

My request is as follows: I plan to conduct the research in the Spring 2009, and I am looking for professors who may be interested in participating in the study. More specifically, I am looking for professors who podcast their lectures for student use.

Mostly, I am looking to study freshmen coming to the US from another country as undergraduate students. The professors' involvement would be minimal. I have included below a detailed overview of the dissertation to provide you a better idea of its purpose, methods, and procedures:

Dissertation Title

The Effects of Coursecasting in International Students' Language Comprehension, Academic Performance and Overall Course Experience

Description and Purpose of the Study

The purpose of this study is to investigate whether podcasting is an effective tool that might mitigate feelings of marginalization and isolation, deficiencies in language comprehension and proficiency, and anxiety in students whose first language is not English.

Language comprehension is one of the most prevalent adjustment issues affecting the classroom experience, and thus, the academic performance and retention at the institution of international students or students for whom English is not their first language. More specifically, lack of language proficiency—particularly in their classroom interactions—causes them stress and anxiety, and increases their feelings of marginality and isolation from the group.

Engaged learning also has been found to be highly dependent on comprehension, which, according to researchers is very much affected by the anxiety that students may bring to class. It is believe that the use of certain types of technology may play a role in helping alleviate anxiety, thus improving the level of engagement of the students in meaningful learning.

As suggested by the literature, it is important for academic institutions to identify and research the issues that may potentially hinder these students from achieving at their highest level, since studies that focus on the actual experiences of these students are sorely needed. More specifically, research that focuses on effective methods of instruction that may further the educational goals of international students, while enhancing their language comprehension and academic performance, is needed in the field of higher education.

Formal research in the use and value of podcasting and coursecasting has been supported in the majority of the cases by anecdotal evidence, which does not satisfy those technology watchers who need more concrete evidence of its educational value before accepting or endorsing its adoption.

Student Participation Requirements

The study will not disrupt the everyday activities of the course. Students willing to participate will be asked to complete three pre-testing and four post-testing instruments that will attempt to record any change in their feelings of marginalization, anxiety, and language proficiency. Overall, the combined, total time devoted to these surveys/instruments throughout the semester should not exceed an hour and a half. Obviously, students will not be required to answer all of the instruments at the same time, and each one, individually, takes no more than 20-25 minutes.

More specifically, students will be asked to take the following instruments at the beginning and at the end of the semester:

- Cultural Adjustment Difficulties Checklist (CADC) by Sodowsky and Lai (1997)
- Modified Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz, Horwitz, and Cope (1986)
- Self-Reported Fluency of English Scale (SRFES)
- Test of English as a Foreign Language (TOEFL) or its institutional equivalent, Institutional Testing Program (ITP)
  Note: Participating students will only need to do one portion of this instrument at the end of the semester

Besides these online tests, the students will be asked to fill out an online pre and post-questionnaire to gather basic information from them, as well as the proper consent form.

Methods and Procedures

Once the appropriate courses are selected, an e-mail will be sent to all the students in the class, inviting them to participate in the research. The e-mail will include a link to a Web site (http://home.fau.edu/alberto/web/dissertation/), which will also contain information about the study. The e-mail message will ask students interested in participating to complete the voluntary consent form and another form which will gather initial information regarding the student's familiarity with MP3 players, podcasting, country of origin, native language, reported TOEFL score, GPA, etc.

Once the initial information is collected, students will be asked to take the CADC, SRFES, and the FLCAS tests online. Throughout the semesters, professors will make coursecasts/podcasts of their courses available to the students.

Statistical information about number and frequency of downloads will be requested from the participating professors for further analysis, if available. At the end of the semester, participating students will be asked to take all the same tests, including the TOEFL practice exam. Each test does not take more than 20-25 minutes to be completed.

Professors Participation Requirements

Professor participation will be minimal. More specifically, they will need to:

- Help me to promote the study to his/her students at the beginning of the semester by forwarding an invitation e-mail to all enrolled students. This e-mail will describe the study and direct students to the Web site.
- Record the lectures and upload the podcasts in the university's Web site. Announce in class (and if they wish, in the syllabus) the availability of these files

for download, and show students how to download them if they don't know how to do it.
- Provide me with student download data, if possible.

Regards,

Alberto Fernandez

Appendix N

Professors Who Have Agreed to Participate in the Study

Universities	Professor	E-mail
Arizona State University	Kraig Knutson	Kraig.Knutson@asu.edu
	Stephen Doig	steve.doig@asu.edu
County College of Morris	Rita Alisauskas	ralisauskas@ccm.edu
Duke University	Lori Leachman	leachman@econ.duke.edu
	Deborah S Reisinger	debsreis@duke.edu
	Richard Lucic	lucic@cs.duke.edu
	Joan E. Clifford	jcliffor@duke.edu
	Daniel Foster	dhfoster@duke.edu
	Ken Rogerson	rogerson@duke.edu
	Marnie Rhoads	marnie.rhoads@duke.edu
	Tom Freeland	tom.freeland@duke.edu
Florida Community College	Peg Greene	pgreene@fccj.org
	John J. Trifiletti	jtrifile@fccj.edu
Georgia College & State University	Henry T. Edmondson III	hank.edmondson@gcsu.edu
	J.J. Hayden	jj.hayden@gcsu.edu
	Lila F. Roberts	lila.roberts@gcsu.edu
	Linda Irwin-DeVitis	soe@gcsu.edu
Marist College	Kevin M. Gaugler	Kevin.Gaugler@marist.edu
Miami Dade College	Sylvia Orozco	sorozcos@mdc.edu
	Louis Molina	lmolina@mdc.edu
	Peter Monck	pmonck@mdc.edu
	Miriam del Campo	mdelcamp@mdc.edu
	Coleen Chung	cchung@mdc.edu
	Christopher Rogers	crogers@mdc.edu
	Jose Hortensi	jhortens@mdc.edu
	Rhonda Berger	rberger@mdc.edu
	Linda Lockshin	llockshi@mdc.edu
	Yvette Lujan	yvette.lujan@mdc.edu
	Irene Canel-Petersen	irene.canel-petersen@mdc.edu
	Marta E. Goicoechea-Pappas	mgoicoec@mdc.edu
New Jersey Institute of Technology	Naomi G. Rotter	naomi.g.rotter@njit.edu
	Diana Walsh	diana.walsh@njit.edu
	Rose Ann Dios	dios@adm.njit.edu
	Norbert Elliot	elliot@njit.edu
	W. P. Beaton	beaton@njit.edu
	Nancy W. Coppola	coppola@njit.edu
	Robert P. Myre	rpm7052@njit.edu
Pennsylvania State University	Jason Brooks	jkb171@psu.edu
University of California, Berkeley	Fletcher H Ibser	hank@stat.berkeley.edu
	Bob Jacobsen	jake@physics.berkeley.edu
	Brian Harvey	bh@eecs.berkeley.edu
	Richard Muller	ramuller@lbl.gov
	Brenda Farmer	brenda@media.berkeley.edu

	Carl A. Hoeger	choeger@ucsd.edu
	Kate Antonovics	kantonov@ucsd.edu
	Jim Whitesell	jkwhitesell@mac.com
	Keith Pezzoli	kpezzoli@ucsd.edu
	Jaime A. Pineda	jpineda@ucsd.edu
	Petr Krysl	pkrysl@ucsd.edu
	Lara Soowal	lsoowal@ucsd.edu
	Carroll B. Foster	cfoster@ucsd.edu
	Geni Peters	gpeters@dss.ucsd.edu
	Par Towb	ptowb@ucsd.edu
	Barry Brown	barry@ucsd.edu
	Katja Lindenberg	klindenberg@ucsd.edu
	Stephan Haggard	shaggard@ucsd.edu
	David Groppe	dgroppe@cogsci.ucsd.edu
University of California, San Diego	Alison Marsden	amarsden@ucsd.edu
	Julianne Cullen	jbcullen@dss.ucsd.edu
	Robert Epstein	repstein@ucsd.edu
	Partho Ghosh	pghosh@ucsd.edu
	Benjamin Grinstein	bgrinstein@ucsd.edu
	Cindy Gustafson-Brown	cgb@ucsd.edu
	Kim Albizati	kalbizati@stratbiocat.com
	Colin McAllister	colinmcallister@earthlink.net
	Stephen Potts	swpotts@ucsd.edu
	Lelli Van Den Einde	lellivde@sdsc.edu
	Morton Printz	mprintz@ucsd.edu
	Nate Eldredge	neldredge@math.ucsd.edu
	Nicholas Gilpin	nickgilpin@hotmail.com
	Lawrence Larson	larson@ece.ucsd.edu
	Beth Simon	bsimon@cs.ucsd.edu
	Brian Sato	bsato@biomail.ucsd.edu
	Ivan Evans	ievans@ucsd.edu
University of Cincinnati	Chris M. Collins	chris.collins@uc.edu
University of the Pacific	Jim Phillips	jphillips1@pacific.edu
University of San Francisco	Margaret Hansen	mmhansen@usfca.edu
University of Washington	David Aldrich	daldrich@u.washington.edu
	Rodney Davis	davir@u.washington.edu
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Appendix O

Web Site Screen Shots (http://home.fau.edu/alberto/web/dissertation/)

Doctoral Dissertation Research - Mozilla Firefox

File   Edit   View   History   Bookmarks   Tools   Help

http://home.fau.edu/alberto/web/dissertation/IRB.htm   Google

NSU NOVA SOUTHEASTERN UNIVERSITY
Graduate School of Computer and Information Sciences

Doctoral Dissertation Research
Alberto Fernández, Ph.D, candidate

Home/About the Study   IRB Consent Form   Instruments   Contact Information

IRB Consent Form

In order for you to participate in this research, you need to complete the Institutional Review Board (IRB) Consent Form, and submit it to your professor. The IRB Consent Form provides you with an overview of the research. It is important for you to understand that your participation, as well as the results of the tests, will not affect your class grade in any way.

If you have any questions, concerns or any problem accessing the IRB Consent Form, please feel free to contact me. You can also contact the IRB from my university at:

Institutional Review Board
Nova Southeastern University - Office of Grants and Contracts
Phone: 954-262-5369
Toll Free: 866-499-0790
E-mail: IRB@nsu.nova.edu

Note: You have the right to refuse to participate in this study or withdraw from it at any time. In either case, there is no penalty to you. Furthermore, your grade in the course will not be affected in any way by your participation, refusal to participate in this study or withdrawal from it. If you choose to leave, you may ask that any of your data which we collected be destroyed unless this is not allowed by state or federal law.

-- Thank you for participating in this research, and for helping me with my dissertation --
Alberto Fernandez falberto@nova.edu

Done

Doctoral Dissertation Research - Mozilla Firefox

File   Edit   View   History   Bookmarks   Tools   Help

http://home.fau.edu/alberto/web/dissertation/instruments.htm   Google

Doctoral Dissertation Research
Alberto Fernández, Ph.D, candidate

NSU NOVA SOUTHEASTERN UNIVERSITY
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Home/About the Study   IRB Consent Form   Instruments   Contact Information
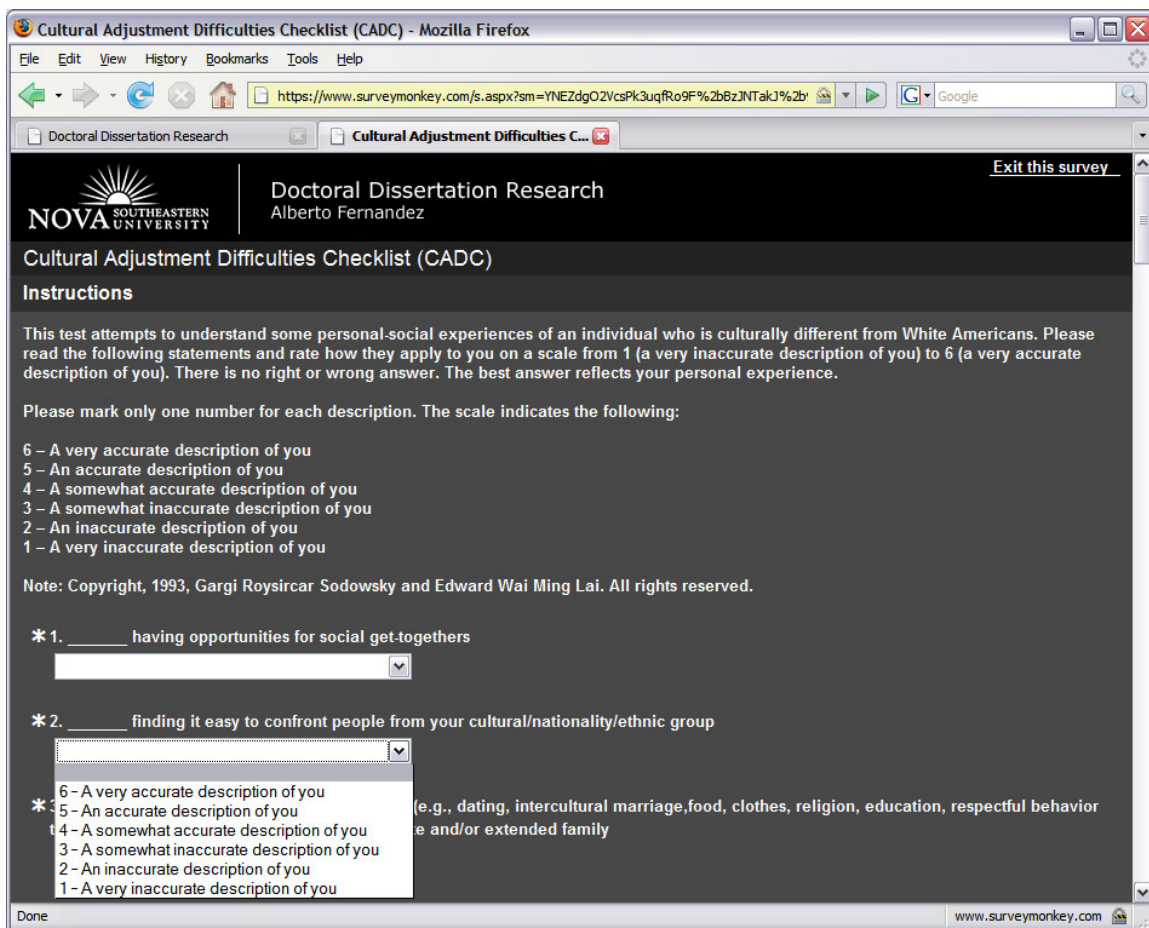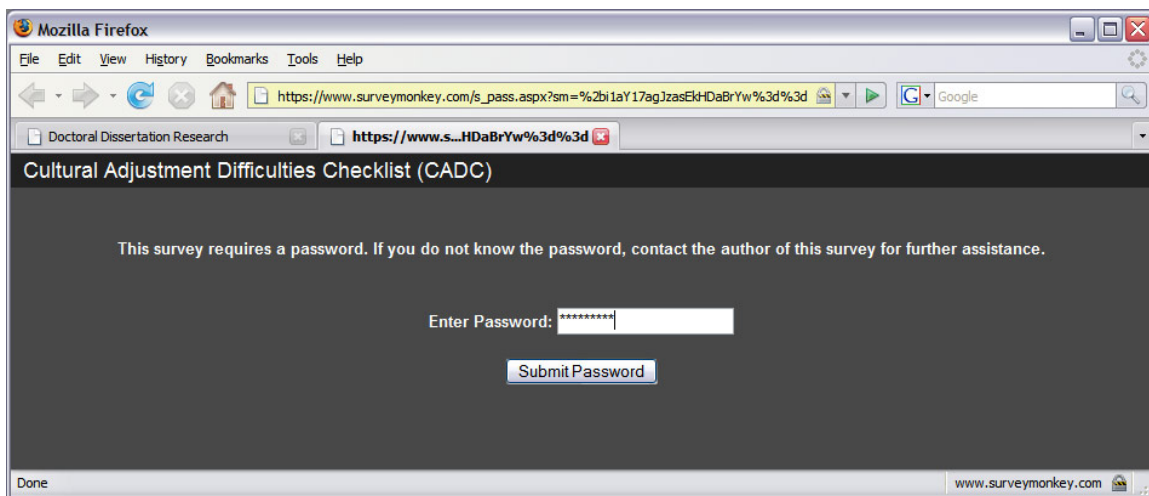
Instruments

Thank you for participating on this research study. The study will not disrupt your everyday course activities. Students participating in this study will be asked to complete four pre-tests and five post-tests instruments that will attempt to record any change in their feelings of marginalization, anxiety, and language proficiency. Obviously, you **will not** be required to answer all of the instruments at the same time. This study presents minimal risks to you. All personal information and/or results from the pre-tests and posts-tests will be kept secure. The researchers will keep your information, and the results of the tests confidential.

The instruments are password protected. The research and/or your instructor will send you an e-mail at the appropiate time for you to take them. The mojority of the tests should take you approximately 10 to 15 minutes to complete.

- Pre-Questionnaire | Participants Basic Information by Alberto Fernandez
  (Approximate completion time: 5 minutes) This form will gather basic information from you.

- Cultural Adjustment Difficulties Checklist (CADC) by Sodowsky and Lai
  (Approximate completion time: 15 minutes) This is a 59-item, multiple choice survey.

- Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz, Horwitz, and Cope
  (Approximate completion time: 10-15 minutes) This is a 33-item, multiple choice survey.

- Self-Reported Fluency of English Scale (SRFES) by Yeh and Inose
  (Approximate completion time: 5 minutes) This is a 3-item, multiple choice survey.

- Test of English as a Foreign Language (TOEFL) - Listening Portion Only
  (Approximate completion time: 30-40 minutes) You will only need to do the listening portion of the instrument at the end of the semester.

- Post-Questionnaire | Participants Basic Information by Alberto Fernandez
  (Approximate completion time: 5 minutes) This form will gather your experience with the study.

-- Thank you for participating in this research, and for helping me with my dissertation --
Alberto Fernandez falberto@nova.edu

Done

Doctoral Dissertation Research - Mozilla Firefox

File   Edit   View   History   Bookmarks   Tools   Help

http://home.fau.edu/alberto/web/dissertation/contact.htm

Doctoral Dissertation Research
Alberto Fernández, Ph.D, candidate

NSU NOVA SOUTHEASTERN UNIVERSITY
Graduate School of Computer and Information Sciences

Home/About the Study   IRB Consent Form   Instruments   Contact Information

Contact Information

Please feel free to contact me if you have any questions, concerns or any problem accessing any of the instruments of this doctoral research study. My contact information is:

Alberto Fernández
Adress: 1100 Redwood St., Hollywood, FL 33019
Phone/Fax: 954-927-8106
E-mail: falberto@nova.edu

If you have any concerns, and would prefer to contact my Doctoral Dissertation Committee from the Graduate School of Computer and Information Sciences (GSCIS) at Nova Southeastern University, you might do so at:

Dr. Timothy Ellis (Chair)
E-mail: ellist@nsu.nova.edu
Phone: 954-262-2029

Dr. Ling Wang (Committee Member)   **Dr. Martha Snyder** (Committee Member)
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Phone: 954-262-2020   **Phone:** 954-262-2074

-- Thank you for participating in this research, and for helping me with my dissertation --
Alberto Fernandez falberto@nova.edu

Done

Appendix P

IRB Informed Consent Form

NOVA SOUTHEASTERN UNIVERSITY
Graduate School of Computer and Information Sciences

**Consent Form for Participation in the Research Study Entitled
The Effects of Coursecasting in International Freshman Students'
Perceptions of Marginality and Isolation, Anxiety, and English Language
Oral Proficiency and Comprehension**

Funding Source: None

IRB Approval #: wang12150801

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Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/Toll Free: 866-499-0790
IRB@nsu.nova.edu

Description of the Study:

The purpose of this study is to investigate whether podcasting is an effective tool that might mitigate feelings of marginalization and isolation, deficiencies in language comprehension and proficiency, and anxiety in students whose first language is not English. You are invited to participate because you are a student in this class. This class was selected because your professor has agreed to record his/her lectures and make them available to you in a podcast. Everyone in this class will have access to the podcasts, but only international students, or those for whom English is not their native language, can participate in the study.

Other than the time you choose to devote to listen to class podcasts, the study will not disrupt your everyday activities. If you choose to participate, you will be asked to complete four simple questionnaires during the first week of class, and five simple questionnaires during the last part of the course. These short surveys are intended to record any change in your feelings of marginalization, anxiety, and language proficiency. Overall, the combined, total time devoted to these surveys throughout the semester should not exceed two hours. Obviously, you will not be required to answer all of them at the same time. Your participation, as well as the results of the tests, will not affect your class grade in any way.

Initials: _____   **Date:** _____   Page 1 of 3

NOVA SOUTHEASTERN UNIVERSITY
Graduate School of Computer and Information Sciences

Risks /Benefits to the Participant:

This study presents no risks to you. All personal information and/or results from the questionnaires will be kept secure. In terms of benefits, you will be exposed to a new teaching method, which includes the use of a new technology (podcasting). Additional benefits may include improved English skills, improvement in academic performance, increased language comprehension and proficiency, and reduction of anxiety and/or feelings of isolation and marginalization. If you have any concerns about the risks or benefits of participating in this study, you can contact Alberto Fernandez, Dr. Timothy Ellis, or the IRB office at the numbers indicated above.

Costs and Payments to the Participant:

There are no costs to you or monetary compensation for participating in this study.

Confidentiality and Privacy:

The researchers will keep your information, and the results of the tests, confidential. Any records with your name on it will be placed in a locked cabinet, and shredded 36 months after the end of the study. All information obtained in this study is strictly confidential unless disclosure is required by law. The IRB and other government agencies may review research records.

Use of Student/Academic Information:

We will need to know your Test of English as a Foreign Language (TOEFL) test scores for the "Listening Comprehension" portion. In virtually all cases, this is information you submitted with your application to the Admission Office. If you don't remember the score, we will contact them for it, for which we will need your permission and approval.

Participant's Right to Withdraw from the Study:

You have the right to refuse to participate in this study or withdraw from it at any time. In either case, there is no penalty to you. Furthermore, your grade in the course will not be affected in any way by your participation, refusal to participate in this study or withdrawal from it. If you choose to leave, you may ask that any of your data which we collected be destroyed unless this is not allowed by state or federal law.

Other Considerations:

If the researcher learns information that might change your mind about being involved, you will be informed about it as soon as it is possible.

Initials: _____   Date: _____   Page 2 of 3

NOVA SOUTHEASTERN UNIVERSITY
Graduate School of Computer and Information Sciences

Voluntary Consent by Participant:

I have read the preceding consent form, or it has been read to me, and I fully understand the contents of this document and voluntarily consent to participate in the research study entitled "The Effects of Coursecasting in International Students' Language Comprehension, Academic Performance and Overall Course Experience". All of my questions concerning the research have been answered. I hereby agree to participate in this research study. I also allow the researcher to contact the Admissions office at my university to request my TOEFL scores, if I do not remember them. If I have any questions in the future about this study they will be answered by Alberto Fernandez or Dr. Timothy Ellis. A copy of this form has been given to me. This consent ends at the conclusion of this study.

Participant's Signature: _____ **Date:** _____

Participant's E-mail: _____

Appendix Q

Pre-Questionnaire & Post-Questionnaire

Participant's Basic Information (Pre-Questionnaire)

The purpose of this study is to investigate whether podcasting is an effective tool that might mitigate feelings of marginalization and isolation, deficiencies in language comprehension and proficiency, and anxiety in students whose first language is not English. You are invited to participate because you are a student in this class. This class was selected because your professor has agreed to record his/her lectures and make them available to you in a podcast. Everyone in this class will have access to the podcasts, but only international students, or those for whom English is not their native language, can participate in the study.

Other than the time you choose to devote to listen to class podcasts, the study will not disrupt your everyday activities. If you choose to participate, you will be asked to complete three pre-tests and four post-tests that will attempt to record any change in your feelings of marginalization, anxiety, and language proficiency. Overall, the combined, total time devoted to these surveys throughout the semester should not exceed an hour and a half. Obviously, you will not be required to answer all of them at the same time. Your participation, as well as the results of the tests, will not affect your class grade in any way.

The researcher will keep your information, and the results of the tests, confidential.

1. Full Name (First and Last Name): _____

2. Tell us about you:
   Age _____   Gender _____   University/College _____
   Year in School: FR ☐ SO ☐ JR ☐ SR ☐   Course Enrolled _____

3. What is your country of origin? _____

4. What is your native language? _____

5. What is your TOEFL (Listening portion only) score? _____

6. If you do not remember your TOEFL score, can I contact the Admissions Office to get it from them?
   _____ Yes
   _____ No

7. Will you be receiving any language support this term, such as tutoring, intensive English classes, etc.?

_____ Yes

_____ No

8. If yes, what kind of additional English support will you be getting?

_____

9. Do you have a personal computer where you currently live?

_____ Yes - Without Internet access

_____ Yes - With a dial-up (slow) Internet access

_____ Yes - With a high speed (broadband) Internet access

_____ No

10. Have you used a MP3 player?

_____ Yes - I have an iPod

_____ Yes - I have a MP3 player that is not an iPod

_____ Yes - I have used my laptop/computer as a MP3 player

_____ No - I do not have one, but I might get one soon or use my laptop/computer as a player

_____ No - I do not have one, nor do I plan to get one or use my laptop/computer as a player

11. Have you ever listened to a podcast before?

_____ Yes

_____ No

12. If you haven't listened to podcasts before, was it because: (Rate each sentence below from 1-5; giving it a rating of "1" means that you barely agree with the sentence and giving it a rating of "5" means you agree completely with it)

	1	2	3	4	5
I didn't see the relevance of podcasts					
I had technical difficulties to access them					
I didn't know that my college/university had them available					
I was too busy					

13. If you have listened to podcasts before, how many podcasts have you listened to?

_____ 1 – 10

_____ 11 – 50

_____ More than 50

_____ I listen to them on a regular basis

_____I have never listened to podcasts before

14. If you have listened to podcasts before, what do you use to listen to the podcasts? (Select all that apply)

_____ PC/Notebook/laptop through a Web Browser

_____ MP3 player or Apple iPod

_____ PDA/Cell Phone or other handheld device

_____ Burn to CD/CD Player

_____ In Your Car

_____ Other

_____I do not listen to podcasts

Participants Basic Information (Post-Questionnaire)

The researcher will keep your information, and the results of the tests confidential.

1. Full Name (First and Last Name): _____

2. Tell us about you.

   University/College _____   Course Enrolled _____

3. Did you receive any language support this term, such as tutoring, intensive English classes, etc.?

   _____ Yes

   _____ No

4. If you did, what kind of support did you receive?

   _____

5. How many of the course podcasts have you listened to?

   _____ 1 – 5

   _____ 6 – 10

   _____ More than 10

   _____ I listened to all of them

   _____ Not applicable – I didn't listen to any podcasts

6. What did you use to listen to the podcasts? (Select all that apply)

_____ PC/Notebook/laptop through a Web Browser

_____ MP3 player or Apple iPod

_____ PDA/Cell Phone or other handheld device

_____ Burn to CD/CD Player

_____ In Your Car

_____ Other

_____ Not applicable – I didn't listen to any podcasts

7. When did you listen to the course podcasts?

_____ On the same day or a couple of days after they were made available

_____ 3 or 4 days after they were made available

_____ At the end of the week

_____ Just before the tests

_____ No specific pattern

_____ Not applicable – I didn't listen to any podcasts

8. To what extent do you believe that podcasting impacted your learning experience in the class?

_____ It impacted it strongly in a positive way

_____ It impacted it in a positive way

_____ It did not impact it at all

_____ It impacted it in a negative way

_____ It impacted it in a strongly negative way

9. To what extent do you believe that having the podcasting files available to you affected your attendance to the class?

_____ I strongly agree it affected my attendance; I rarely went to class

_____ I agree it affected my attendance; I missed several classes

_____ I disagree it affected my attendance; I rarely missed class

_____ I strongly disagree it affected my attendance; I never missed class

10. To what extent do you believe that podcasting impacted your final grade in the course?

_____ It allowed me to improve my final grade

_____ It did not impact my grade at all

_____ It impacted my final grade in a negative way

11. What did you like about the podcasts? (Select all that apply)

_____ The podcasts allowed me to feel less anxious about information I didn't catch in class

_____ The podcasts allowed me to catch-up on missed classes

_____ The podcasts allowed me to go over the lectures again so I could understand the professor better

_____ The podcasts allowed me to review class material to help me study and prepare for exams

_____ I feel that the podcasts helped me to further develop my English skills by allowing me to listen again to things I didn't understand the first time around

_____ The podcasts made studying more fun and convenient because I could listen to them at any time

_____ The podcasts made me feel better prepared for class

_____ I didn't like the podcasts; I found them unnecessary

_____ I didn't like the podcasts; they took too much time

_____ Other: _____

Reference List

Abdous, M., Camarena, M. M., & Facer, B. R. (2009). MALL technology: Use of academic podcasting in the foreign language classroom. *ReCall – European Association for Computer Assisted Language Learning, 21*(1), 76-95.

Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal, 78*(2), 155-168. Retrieved January 15, 2008 from http://links.jstor.org/sici?sici=0026-7902%28200323%2987%3A3%3C365%3ATSOGFL%3E2.0.CO%3B2-2

Al-Jarf, R. S. (2004). The effects of Web-based learning on struggling EFL college writers. *Foreign Language Annals, 37*(1), 49.

Al-Sibai, D. M. (2005). *L2 anxiety of Saudi female university students enrolled in speaking courses.* Retrieved January 15, 2007 from King Saud University Electronic Document Archive: http://209.85.207.104/search?q=cache:ese6bcXFNksJ:docs.ksu.edu.sa/DOC/Artic les51/Article510013.doc+%22dina+M.+Al-sibai%22&hl=en&ct=clnk&cd=2&gl=us

Alston, M., & Bowles, W. (2003). *Research for social workers: An introduction to methods* (2nd ed.). New York: Routledge.

Altun, A., & Cakan, M. (2006). Undergraduate students' academic achievement, field dependent/independent cognitive styles and attitude toward computers. *Journal of Educational Technology & Society, 9*(1), 289-297.

Anderson, S. (2006, March). Missing persons report: A look at the international student population on U.S. campuses. *CASE Currents*, 9-10.

Athos, K., B. (2005). International student adjustment, technology use and English language learning in academia. *Dissertation Abstracts International, 66*(02), 456. (ProQuest ID: 885693111)

Badur, G. (2003). International students' perspectives on their cross-cultural adjustment to American higher education. *Dissertation Abstracts International, 64*(04), 1137.

Bailey, P., Onwuegbuzie, A. J. & Daley, C. E. (2000). Correlates of anxiety at three stages of the foreign language learning process. *Journal of Language and Social Psychology, 19*, 476-490. Retrieved January 15, 2008, from http://0-jls.sagepub.com.novacat.nova.edu/cgi/reprint/19/4/474

Beheler, A. (2007). The future of podcasting in podsecondary education: A Delphi study. *Dissertation Abstracts International, 68*(03) (ProQuest ID: 1288658741)

Belanger, Y. (2005). *Duke University iPod first year experience final evaluation report.* Durham, NC: Duke University, Center for Instructional Technology.

Bell, T., Cockburn, A., Wingkvist, A., & Green R. (2007). *Podcasts as a supplement in tertiary education: An experiment with two computer science courses.* Retrieved June 5, 2007, from University of Canterbury, Department of Computer Science & Software Engineering Web site: http://www.cosc.canterbury.ac.nz/andrew.cockburn/papers/podcast.pdf

Boland, J. E. (2004). Linking eye movements to sentence comprehension in reading and listening. In M. Carreiras & C. Clifton, Jr. (Eds.), *The online study of sentence comprehension* (pp. 51-76). New York: Psychology Press.

Boulos, M. N. K., Maramba, I., & Wheeler, S. (2006). Wikis, blogs and podcasts: A new generation of Web-based tools for virtual collaborative practice and education. *BMC Medical Education, 6*(41)

Bretag, T. (2003, November 24-25). *Developing strategies to support international students in Information Systems courses: Reflections from the second cycle of an action research project.* Paper presented at the 2003 National Language and Academic Skills Conference. Retrieved January 20, 2008, from http://www.unisanet.unisa.edu.au/staff/TraceyB/Action%20research%20stage%202 02.doc

Brewer, A. (2005). International student adjustment, technology use and English language learning in academia. *Dissertation Abstracts International, 66*(02), 456.

Brittain, S., Glowacki, P., Van Ittersum, J., & Johnson, L. (2006). Podcasting lectures: Formative evaluation strategies helped identify a solution to a learning dilemma. *Educause Quarterly, 29*(3), 24-31.

Brooks, G. & Adams, M. (2002). Spoken English Proficiency and Academic Performance: Is there a relationship and if so, how do we teach? In *And Gladly Teche: Celebrating Teaching at Macquarie* Ed. Reid, A. Gosper, M. and Fraser, S. Centre for Professional Development and Centre for Flexible Learning: Macquarie University, Sydney.

Broota, K. D. (1989). *Experimental design in behavioural research.* New Delhi: New Age Publishers.

Brown, J. S., Collins, A., & Duguid, S. (1989). Situated cognition and the culture of learning. *Educational Researcher, 18*(1), 32-42.

Bruen, C. (2002). *A development framework for re-useable learning resources for different learning styles and requirements.* Retrieved March 10, 2006, from The University of Dublin, Trinity College Web site: https://www.cs.tcd.ie/Catherine.Bruen/edmedia2002.pdf

Carnevale, A. P. (1999, Spring). Diversity in higher education: Why corporate America cares. *Diversity Digest, 3*(2), 1.

Campbell, G. (2005, November/December). There's something in the air: Podcasting in education. *EDUCAUSE Review, 40*(6), 32-47.

Carr, J. L., Koyama, M., & Thiagarajan, M. (2003). A women's support group for Asian international students. *Journal of American College Health, 52*(3), 131-134.

Carvalho, A. A., Aguiar, C., Carvalho, C. J., & Cabecinhas, R. (2008). Influence of podcasts characteristics on higher students' acceptance. *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008*. Retrieved June 26, 2010, from http://www.editlib.org/p/30190

Casado, M. A., & Dereshiwsky, M. I. (2001). Foreign language anxiety of university students. *College Student Journal*, 35(4), 539-551.

Cebeci, Z., & Tekdal, M. (2006). Using podcasts as audio learning objects. *Interdisciplinary Journal of Knowledge and Learning Objects, 2*, 47-57.

Chan, A., & Lee, M. J. W. (2005). *An MP3 a day keeps the worries away: Exploring the use of podcasting to address preconceptions and alleviate pre-class anxiety amongst undergraduate information technology students.* Retrieved May 20, 2007, from Charles Sturt University, Student Experience Conference 2005 site: http://www.csu.edu.au/division/studserv/sec/papers/chan.pdf

Chan, A., Lee, M. J. W., & McLoughlin, C. (2006, December 3-6). *Everyone' learning with podcasting: A Charles Sturt University experience*. Paper presented at the 2006 Ascilite - The annual conference of the Australasian Society for Computers in Learning in Tertiary Education. Abstract retrieved May 15, 2008, from http://www.ascilite.org.au/conferences/sydney06/proceeding/pdf_papers/p171.pdf

Cheng, Y., Horwitz, E. K., & Schallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning, 49*(3), 417-446.

Cigularova, D. K. (2004-2005). *Psychosocial Adjustment of International Students*. Retrieved July 15, 2006, from Colorado State University, Student Affairs in Higher Education Web site: http://www.sahe.colostate.edu/Journal_articles/Journal_2004_2005.vol14/Psychosocial_Adjustment.doc

Clark, S., Taylor, L., & Westcott, M. (2007). Using short podcasts to reinforce lectures. *UniServe Science Teaching and Learning Research Proceedings*. Retrieved June 26, 2010, from http://sydney.edu.au/science/uniserve_science/pubs/procs/2007/08.pdf

Coelho, P. (1993). *The Alchemist* (1st ed.). New York: HarperCollins.

Crofts, S., Dilley, J., Fox, M., Retsema, A., & Williams, B. (2005, September). Podcasting: A new technology in search of viable business models. First Monday, 10(9). Retrieved May 25, 2006, from http://www.firstmonday.org/issues/issue10_9/crofts/index.html

Dao, T. K., Lee, D., & Chang, H. L. (2007). Acculturation level, perceived English fluency, perceived social support level, and depression among Taiwanese international students. *College Student Journal, 41*(2), 287-295.

Deal, A. (2007). *A teaching with technology white paper: Podcasting*. Retrieved January 16, 2008, from Carnegie Mellon University, Office of Technology for Education & Eberly Center for Teaching Excellence Web site: http://www.cmu.edu/teaching/resources/PublicationsArchives/StudiesWhitepapers/Podcasting_Jun07.pdf

Dozier, S. B. (2001). Undocumented and documented international students: A comparative study of their academic performance. *Community College Review, 29*(2), 43.

Earman, J. (1992). "Bayes' Bayesianism". *Bayes Or Bust?: A Critical Examination of Bayesian Confirmation Theory*. Cambridge: MIT Press.

Edirisingha, P., Rizzi, C., Nie, M., & Rothwell, L. (2007). Podcasting to provide teaching and learning support for an undergraduate module on English language and communication. *Turkish Online Journal of Distance Education (TOJDE), 8*(3). Retrieved April 15, 2008, from http://tojde.anadolu.edu.tr/tojde27/articles/article_6.htm

EDUCAUSE. (2006). *The horizon report – 2006 edition*. Stanford, CA

Elliot, E., King, S., & Scutter, S. (2009). To Podcast or not to podcast? Pedagogical decision making in the use of new technologies. *Proceedings of the 2009 UniServe Science Conference.* Retrieved June 26, 2010, from http://sydney.edu.au/science/uniserve_science/images/content/2009_papers/elliot1.pdf

Evans, C. (2008). The effectiveness of m-learning in the form of podcast revision lectures in higher education. *Computers & Education. An International Journal, 50,* 491-498.

Feizi, K. (1990). The correlation between academic success and problems perceived by international graduate students. *Dissertation Abstracts International, 51*(12), 3972.

Felder, R. M., & Silverman, L. K. (1988). Learning and teaching styles in engineering education. *Journal of Engineering Education, 78*(7), 674-681.

Fietze, S. (2009). Podcast in higher education: Students usage behavior. *Proceedings ascilite Auckland 2009.* Retrieved June 26, 2010, from http://www.ascilite.org.au/conferences/auckland09/procs/fietze.pdf

Fritz, K. (2007). Determining the impact and effectiveness of different teaching strategies when incorporating the iPod into the classroom. Lubbock, TX: Texas Tech University. Retrieved May 20, 2010 from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.86.8106&rep=rep1&type=pdf

Frydenberg, M. (2008). Principles and pedagogy: The two Ps of podcasting in the information technology classroom. *Information Systems Education Journal, 6* (6), 3-11. Retrieved April 15, 2008, from: http://isedj.org/6/6/.

Furnham, A. (2004). Foreign students: Education and culture shock. *The Psychologist, 17*(1), 16-19.

Gay, L. R., Mills, G. E., & Airasian, P. (2009). *Educational research. Competencies for analysis and applications* (9th ed.). Upper Saddle River, NJ: Person Education.

Gay, P. L., Price, A., & Searle, T. (2007). Astronomy podcasting: A low-cost tool for affecting attitudes in diverse audiences. *The Astronomy Education Review, 1*(5), 36-52.

Gifford, D. D., Briceño-Perriott, J., & Mianzo, J. (2006). Locus of control: Academic achievement and retention in a sample of university first-year students. *Journal of College Admission, 191*, 19-25.

Glogoff, S. (2009). *Podcast your lectures: Or, why students will still attend class*. Retrieved June 26, 2010, from the University of Arizona, Learning Technology Center Web site: http://elearn.arizona.edu/stuartg/PodcastYourLectures2.pdf

Goshi, M. (2005). Foreign language classroom anxiety: How should the classroom teacher deal with it? *Journal of The School of Marine Science and Technology, 3*(2), 61-66.

Grey, M. A. (1992, August 12-14). *Applying concepts of marginality to secondary ESL programs: Challenges for practitioners and researchers.* Paper presented at the Third National Research Symposium on Limited English Proficient Student Issues. Retrieved April 18, 2008, from http://www.ncela.gwu.edu/pubs/symposia/third/grey.htm

Gurin, P. (1999). Expert report of Patricia Gurin. Gratz, et al. v. Bollinger, et al., No. 97-75321 (E.D. Mich.) and Grutter, et al. v. Bollinger, et al., No. 97-75928 (E.D. Mich.) *The compelling need for diversity in higher education.* Retrieved July 15, 2006, from University of Michigan, Admissions Lawsuits Web site: http://www.vpcomm.umich.edu/admissions/legal/expert/gurintoc.html

Hanassab, S. (2006). Diversity, international students, and perceived discrimination: Implications for educators and counselors. *Journal of Studies in International Education, 10*(2), 157-172.

Hinchcliff-Pelias, M., & Greer, N. S. (2004). The importance of intercultural communication in international education. *International Education, 33*(2), 5-18. Retrieved January 15, 2008 from http://0-vnweb.hwwilsonweb.com.novacat.nova.edu/hww/results/results_single_fulltext.jhtml;hwwilsonid=05TORZDZQZKRVQA3DINCFF4ADUNGIIV0

Hirschland, J. (2005). Notes to go: The case for coursecasting at CU. *Columbia Spectator.* Retrieved March 10, 2006, from http://www.columbiaspectator.com/vnews/display.v/ART/2005/10/25/435dc30689a22

Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly, 20*(3), 559-562. Retrieved January 15, 2007 from http://links.jstor.org/sici?sici=0039-8322%28198609%2920%3A3%3C559%3APEFTRA%3E2.0.CO%3B2-Q

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.

Hsieh, M. (2007). Challenges for international students in higher education: One student's narrated story of invisibility and struggle. *College Student Journal, 41*(2), 379-391. Retrieved August 1, 2007, from Wilson Web database.

Huang, J. (2006). English abilities for academic listening: How confident are Chinese students? *College Student Journal, 40*(1), 218-226.

IDG Global Solutions. (2006). *Podcasting phenomenon: A discussion on the development of podcasting as a professional medium for learning.* Ongoing study of the use of podcasting in the professional realm produced in cooperation with Apple's European education team. Retrieved May 20, 2007, from http://www.schulmac.ch/documents/uploads/podcasting_phenomenon03oct06.pdf

Institute of International Education – IIE. (2005). *Open doors 2005 report.* New York, NY.

Institute of International Education – IIE. (2007). *Open doors 2007 report.* Retrieved April 18, 2008, from http://opendoors.iienetwork.org

Issac, S., & Michael, W. B. (1997). *Handbook in research and evaluation.* San Diego: EdITS/Educational and Industrial Testing Services

Jang, E. E., & Roussos, L. (2007). An investigation into the dimensionality of TOEFL using conditional Covariance-based nonparametric approach. *Journal of Educational Measurement, 44*(1), 1-21.

Jaschik, S. (December 19, 2005). Shift on international education. *Inside Higher Ed.* Retrieved May 20, 2007, from http://insidehighered.com/news/2005/12/19/intl.

Jay, T. B. (2003). *The psychology of language.* Upper Saddle River, NJ: Prentice Hall.

Jiao, Q. G., & Onwuegbuzie, A. J. (November 2002). *Anxiety-Expectation Mediation model of library anxiety.* Paper presented at the Annual Meeting of the Mid-South Educational Research Association. Chattanooga, TN. ERIC Number ED478613. Retrieved May 20, 2007, from http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED478613&ERICExtSearch_SearchType_0=eric_accno&accno=ED478613

Johnson, B., & Christensen, L. B. (2007). *Educational research: Quantitative, qualitative, and mixed approaches* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

Johnson, M. M. (July 28, 2006). Toward a new foreign-student strategy. *The Chronicle of Higher Education.* Retrieved May 20, 2006, from http://0-vnweb.hwwilsonweb.com.novacat.nova.edu/hwww/results/results_single_ftPES.j html

Johnson, V. (April 11, 2003). When we hinder foreign students and scholar, we endanger our national security. Retrieved May 20, 2006, from http://0-vnweb.hwwilsonweb.com.novacat.nova.edu/hwww/results/results_single_ftPES.j html

Kadel, R. (2006, February). Coursecasting: The wave of the future? *Research Windows. Learning and Leading With Technology, 33*(5), 48-49.

Kang, S. (2006). Measurement of acculturation scale formats, and language competence: Their implications for adjustment. *Journal of Cross-Cultural Psychology, 36*(6), 669-693.

Kaplan-Leiserson, E. (June 2005). Trend: Podcasting in academic and corporate learning. *Learning Circuits.* Retrieved on May 20, 2007, from http://www.learningcircuits.org/2005/jun2005/0506_trends

Kaveh, F. (1990). The correlation between academic success and problems perceived by international graduate students. *Dissertation Abstracts International, 51* (12), 3972. (ProQuest ID: 745628801)

Keller, G. (2001). The new demographics of higher education. *Review of higher education, 24*(3), 219-235.

Keller, G. (2004). *Transforming a college: The story of a little-know college's strategic climb to national distinction.* Baltimore, MD: The Johns Hopkins University Press.

Kendagor, S. L. (2005). Pastoral care and counseling for international students studying in the USA. Pretoria, KS: University of Pretoria etd. Retrieved May 20, 2007, from http://uptd.up.ac.za/thesis/available/etd-08202005-072806/unrestricted/00thesis.pdf

Kim, J. (2005). The reliability and validity of a Foreign Language Listening Anxiety Scale. *Korean Journal of English Language and Linguistics, 5*(2), 213-235. Retrieved January 15, 2008 from http://209.85.207.104/search?q=cache:DRuFdrItha0J:society.kisti.re.kr/~kasell/ht ml/5-2/kim%2520jh.pdf+%22joohae+kim%22&hl=en&ct=clnk&cd=5&gl=us

Kim, S. (2004). Teaching international students across the curriculum: Supporting academic listening/speaking. Columbus, OH: The Ohio State University. Retrieved July 21, 2007, from http://ftad.osu.edu/Publications/intloral.html

Klomegah, R. Y. (2006). Social factors relating to alienation experienced by international students in the United States. *College of Student Journal, 40*(2), 303-315. Retrieved June 5, 2007, from Wilson Web database (WN: 0615203829011).

Kuo, B. C. H., & Roysircar, G. (2004). *Predictors of acculturation for Chinese adolescents in Canada: Age of arrival, length of stay, social class, and English reading ability.* Journal of Multicultural Counseling and Development, 32(3), 143-154.

Kurtzman, L. (2006). UC podcasting trial merges education with technology. *The Enquirer.* Retrieved March 10, 2006, from http://news.enquirer.com

Kwan, K.K., & Roysisrcar-Sodowsky, G. (1997). Internal and external ethnic identity and their correlates: A study of Chinese American immigrants. *Journal of Multicultural Counseling and Development, 25*(1), 51-68.

Kwon, Y. (2009). Factors affecting international students' transition to higher education institutions in the United States. –From the perspective of office of international students– *College Student Journal, 43*(4), 1020-1036.

Ladd, P. D., & Ruby, R. (1999). Learning style and adjustment issues of international students. *Journal of Education for Business, 74*(6), 363.

Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation.* Cambridge, UK: Cambridge University Press

Le, H., Casillas, A., Robbins, S. B., & Langley, R. (2005). Motivational and skills, social, and self-management predictors of college outcomes: Constructing the student readiness inventory. *Educational and Psychological Measurement, 65*(3), 482-508.

Lee, J. J., & Rice, C. (2007). Welcome to America? International student perceptions of discrimination. *Higher Education, 53*, 381-409.

Levinson, S. C. (2003). Language and mind: Let's get the issues straight! In D. Gentner & S. Goldin-Meadow (Eds.), *Language in Mind: Advances in the study of language and thought* (pp. 24-46). Cambridge, MA: The MIT Press.

Littlefield, C. (2006, November 7). CCSN students to use iPods to tune in to class. *Las Vegas Sun.* Retrieved May 20, 2007, from http://www.lasvegassun.com/sunbin/stories/sun/2006/nov/07/566678255.html

Lum, L. (2006, March 9). The power of podcasting: This new technology is revolutionizing the way faculty and administrators interact with students. *Diverse: Issues in Higher Education*, 32-35.

Maestas, Michael V. (2000) Acculturation and ethnic identity measures for Latinos and Asian Americans: Analyses of methodology and psychometrics. Ph.D. dissertation, The University of Nebraska - Lincoln, United States -- Nebraska. Retrieved April 1, 2008, from ProQuest Digital Dissertations database. (Publication No. AAT 9977003)

Maki, W. S., & Maki, R. H. (2002). Multimedia comprehension skill predicts differential outcomes of Web-based and lecture courses. *Journal of Experimental Psychology: Applied, 8*(2), 85-98.

Manning, S. (2005). The promise of podcasting. *Pointers & Clickers. ION's Technology Tip of the Month, 6*(2). Retrieved on May 20, 2007, from http://www.ion.illinois.edu/Resources/pointersclickers/2005_03/Podcasting2005.pdf

Marczynski, C. B. (1996). The relationships among acculturation, individualism-collectivism, personality, and acculturative stress in Filipino immigrants in the United States. (Doctoral dissertation, Washington State University, 1996). Retrieved April 1, 2008, from ProQuest Digital Dissertations database. (Publication No. AAT 9806731)

Marian, V., Blumenfeld, H. K., & Kaushanskaya, M. (2007). The Language Experience and Proficiency Questionaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech, Language, and Hearing Research, 50*(4), 940-967. Retrieved January 15, 2008 from http://0-vnweb.hwwilsonweb.com.novacat.nova.edu/hww/results/results_single_fulltext.jhtml;hwwilsonid=LKB0C0B4O5EDZQA3DINCFGGADUNGIIV0

Maurer, A. (2006). Classroom to iPods: Coursecasting lets students download lectures. *Independent Collegian.* Retrieved April 5, 2006, from http://www.independentcollegian.com

McCarty, S. (2005). Spoken Internet to go: Popularization through podcasting. *The JALT CALL Journal, 1*(2), 67-74.

Meng, P. (2005). *Podcasting & vodcasting. A white paper. Definitions, discussions, & implications.* University of Missouri—IAT Services. Retrieved on May 20, 2007, from www.iatservices.missouri.edu

Mills, N., Pajares, F., & Herron, C. (2006). A reevaluation of the role of anxiety: Self-efficacy, anxiety, and their relation to reading and listening proficiency. *Foreign Language Annals, 39*(2), 276-295.

Molina, P. G., & The 2006 EDUCAUSE Evolving Technologies Committee. (2006, September/October). Pioneering: New territory and technologies. *EDUCAUSE Review, 41*(5), 113-134.

Morales, C., & Moses, J. S. (2006). *Podcasting: Recording, managing, and delivering the classroom experience.* 2006 Evolving Technologies Committee Report. Educause Web site. Retrieved May 20, 2007, from http://connect.educause.edu/library/abstract/Podcasting/37277

Mori, S. (2000). Addressing the mental health concerns of international students. *Journal of Counseling and Development, 78,* 137-144.

Morgan, G. A., Gliner, J. A., & Harmon, R. J. (2006). *Understanding and evaluating research in applied and clinical settings.* New York: Routledge.

Munroe, A., & Pearson, C. (2006). The Munroe Multicultural Attitude Scale Questionnaire. A new instrument for multicultural studies. *Educational and Psychological Measurement, 66*(5), 819-834.

NAFSA: Association of International Educators. (2006). *Restoring U.S. competitiveness for international students and scholars.* Retrieved June 22, 2006, from http://www.nafsa.org/_/Document/_/restoring_u.s.pdf

Nash, S. S. (June, 2006). Fighting intrusive thoughts using podcasts: A strategy for effective e-learning. *InSITE Informing Sciences Proceedings.* Retrieved on June 26, 2007, from http://proceedings.informingscience.org/InSITE2006/ProcNash137.pdf

O'Bryan, A., & Hegelheimer, V. (2007). Integrating CALL into the classroom: The role of podcasting in an ESL listening strategies course. *ReCall – European Association for Computer Assisted Language Learning, 19*(2), 162-180.

Okeagu, C. A. (1997). The relationship between English language proficiency and the academic achievement of foreign university students in an American metropolis. *Dissertation Abstracts International, 58*(3), 781. (UMI No. 9725858).

Okolo, E. N. (1990). *Health research design and methodology*. Boca Raton, FL: CRC Press.

Olivas, M., & Chi-Sing L. (2006). Understanding stressors of international students in higher education: What college counselors and personnel need to know. *Journal of Instructional Psychology, 33*(3), 217-222.

Onwuegbuzie, A. J., Bailey, P., & Daley, C. E. (2000). The validation of three scales measuring anxiety at different stages of the foreign language learning process: The input anxiety scale, the processing anxiety scale, and the output anxiety scale. *Language Learning, 50*(1), 87-117.

Ormond, P. R. (2008). Podcasting enhances learning. *Journal of Computing Sciences in Colleges, 24*(1), 232-238.

Ormrod, J. E. (1999). *Human learning* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Oskovich, K. (October, 2006). Cultural diversity and its effects on situational anxiety in the foreign language classroom. *Journal of Technology and Business.* Retrieved June 5, 2007, from http://www.npu.edu/npu_highlights/rd_activities/

Osterhout, L., Mclaughlin, J., Kim, A., Greenwald, R., & Inoue, K. (2004). Sentences in the brain: Event-related potentials as real-time reflections of sentence comprehension and language learning. In M. Carreiras & C. Clifton, Jr. (Eds.), *The online study of sentence comprehension* (pp. 271-308). New York: Psychology Press.

Pan, W., & Tang, M. (2005). Students' perceptions on factors of statistics anxiety and instructional strategies. *Journal of Instructional Psychology, 32*(3), 205-214.

Pan, W., & Tang, M. (2004). Examining the effectiveness of innovative instructional methods on reducing statistics anxiety for graduate students in the social sciences. *Journal of Instructional Psychology, 31*(2), 149-159.

Pilgrim, M. (2002). What is RSS. *XML.com*. Retrieved May 10, 2008, from http://www.xml.com/pub/a/2002/12/18/dive-into-xml.html

Podcasting. (n.d.). Retrieved June 2, 2008, from Illinois State University, Ed Tech Immersion Plus (ETIP) Web site: http://www.coe.ilstu.edu/etip/activities/podcasting.shtml

Poyrazli, S., & Grahame, K. M. (2007). Barriers to adjustment: Needs of international students within a semi-urban campus community. *Journal of Instructional Psychology, 34*(1), 28-45. Retrieved January 15, 2008 from http://0-vnweb.hwwilsonweb.com.novacat.nova.edu/hww/results/results_single_fulltext.jhtml;hwwilsonid=LKB0C0B4O5EDZQA3DINCFGGADUNGIIV0

Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling, 7*(1), 73-82.

Ractham, P., & Zhang, X. (2006). Podcasting in academia: A new knowledge management paradigm within academic settings. Special interest group on computer personnel research annual conference archive. *Proceedings of the 2006 ACM SIGMIS CPR conference on computer personnel research: Forty four years of computer personnel research: achievements, challenges & the future*. Retrieved June 29, 2007, from portal.acm.org/ft_gateway.cfm?id=1125241&type=pdf

Rahman, O., & Rollock, D. (2004). *Acculturation, competence, and mental health among South Asian students in the United States*. Journal of Multicultural Counseling and Development, 32(3), 130-142.

Rainie, L., & Madden, M. (2005, April). *Podcasting data memo*. Retrieved May 25, 2006, from Pew Internet & American Life Project Web site: http://www.pewinternet.org/pdfs/PIP_podcasting.pdf

Randall, K. (2007). *Words Fail Me: Foreign language anxiety crippling for some students, says scholar*. Retrieved June 14, 2008, from The University of Texas at Austin, Public Affairs Web site: http://www.utexas.edu/features/2007/language/

Rappa, M. (2006, March 15-17). *Reaching students beyond the classroom with a podcast*. Paper presented at the UNC Teaching and Learning with Technology Conference. Abstract retrieved June 26, 2010, from http://open.ncsu.edu/prof_podcast.pdf

Read, B. (2005, October 28). Lectures on the go: As more colleges use 'coursecasting', professors are split on its place in teaching. *The Chronicle of Higher Education*. Retrieved March 10, 2006, from http://chronicle.com/free/v52/i10/10a03901.htm

Reynolds, R. (2005, July 7). Pedagogy for podcasting (with sample). *Lone Star Learning*. Retrieved on May 20, 2007, from http://www.xplanazine.com/xplanaradio/archives/2005/07/pedagogy_for_po.html

Robbins, N., Lo, Y., Hou, F., Chou, T., Chen, C., Chen, C., et al. (2001-2002). Computer mediated communication and university international students. *Journal of Educational Technology Systems, 30*(3), 323-331.

Rodríguez, M., & Abreu, O. (2003). The stability of general foreign language classroom anxiety across English and French. *The Modern Language Journal, 87*(3), 365-374. Retrieved on January 15, 2007 from http://links.jstor.org/sici?sici=0026-7902%28200323%2987%3A3%3C365%3ATSOGFL%3E2.0.CO%3B2-2

Ross, S. (1998). Self-assessment in second language testing: a meta-analysis and analysis of experiential factors. *Language Testing, 15*(1), 1-20. Retrieved January 15, 2008 from http://0-proquest.umi.com.novacat.nova.edu/pqdweb?index=2&did=790748601&SrchMode=3&sid=1&Fmt=6&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1202226197&clientId=17038&aid=2

Saint-Germain, M. A. (n.d.). *PPA-696 Research Methods: Quasi-Experimental Research Designs.* Retrieved September 5, 2008, from California State University - Long Beach, Professor Saint-Germain's Web site: http://www.csulb.edu/~msaintg/ppa696/696quasi.htm

Sandhu, D. S. (1995). An examination of the psychological needs of the international students: Implication for counseling and psychotherapy. *International Journal for the Advancement of Counseling, 17,* 229-239.

Schachter, R. (2007, August). Wanted: Foreign students. *University Business, 10*(8), 40-45.

Schlosser, C. A. & Burmeister, M. L. (2006). *Audio in online courses: Beyond podcasting.* Retrieved January 20, 2008, from Nova Southeastern University, Fischler School of Education & Human Services – Dr. Burmeister's Web site: http://www.nova.edu/~burmeist/audio_online.html

Schroeder, R., & Maag, M. (2006). ED-CAST: An international podcasting collaboration to enhance access and knowledge. Retrieved June 20, 2007, from http://www.uwex.edu/disted/conference/Resource_library/proceedings/06_4076.pdf

Scutter, S., Stupans, I., Sawyer, T., & King, S. (2010). How do students use podcasts to support learning? *Australian Journal of Educational Technology, 26*(2), 180-191.

Shim, J. P., Shropshire, J., Park, S., Harris, H., & Campbell, N. (2007). Podcasting for e-learning, communication, and delivery. *Industrial Management & Data Systems, 107*(4), 587-600.

Smith, D. G., & Schonfeld, N. B. (2000). The benefits of diversity: What the research tell us. *About Campus, 5*(5), 16-23.

Society for College and University Planning. (2005). *Trends to watch in higher education*. Retrieved May 14, 2006, from http://www.scup.org/pdf/Trends%20Layout%202-05.pdf

Sodowsky, G. R., & Lai, E. W. M. (1997). Asian immigrant variables and structural models of cross-cultural distress. In A. Booth, A. C. Crouter, & N. Landale (Eds.), *Immigration and the family: Research and policy on U.S. immigrants* (pp. 211-234). Mahwah, NJ: Erlbaum.

Stacey, D. G., & Whittaker, J. M. (2005). Predicting academic performance and clinical competency for international dental students: Seeking the most efficient and effective measures. *Journal of Dental Education, 69*(2), 270-280.

Stepp-Greany, J. (2003). Designing instructional technology for language learning. *Academic Exchange Quartely, 7*(4). Retrieved July 22, 2006, from http://www.rapidintellect.com/AEQweb/dec2595.htm

Stepp-Greany, J. (2002, January). Student perceptions on language learning in a technology environment: Implications for the new millennium. *Language Learning & Technology, 6*(1), 165-180. Retrieved July 15, 2006, from http://llt.msu.edu/vol6num1/steppgreany/

Stone, A. (2006, June). Podcasting 101: Universities nationwide experiment with making lectures and other content available for easy download via MP3 players. *Mobile Government*, 26-29.

Stoynoff, S. (1997). Factors associated with international students' academic achievement. *Journal of Instructional Psychology, 24*, 56-68.

Studinski, D. (2006, March 31). Educasting: Professors adapt to students' needs with electronic extras. *Ball State Daily News*. Retrieved April 5, 2006, from http://bsudailynews.com

Sümer, S., Poyrazli, S., & Grahame, K. (2008). Predictors of depression and anxiety among international students. *Journal of Counseling & Development, 86*, 429-437.

Swanson, C. (2006, April 7). Coursecasting creates capability for lectures via iPods. *Northen Iowan*. Retrieved April 30, 2006, from http://fp.uni.edu/northia/article2.asp?ID=4389&SECTION=3

Thannisch, E. R. (1992). Relationships among the test of English as a foreign language, the English language placement test, and the academic performance of undergraduate nonnative English-speaking students at Texas A&M University. *Dissertation Abstracts International, 53*(06), 1769. (ProQuest ID: 747453101)

Tonkin, H. (2006). *Adjusting our global compass.* Retrieved May 20, 2007, from Council of Independent Colleges, Presidents Conference 2006 site: http://www.cic.edu/conferences_events/presidents/2006PI_Resources

Torres, L., & Rollock, D. (2004). Acculturative distress among Hispanics: The role of acculturation, coping, and intercultural competence. *Journal of Multicultural Counseling and Development*, *32*(3), 155-168

Trice, A. G. (2007). Faculty perspectives regarding graduate international students' isolation from host national students. *International Education Journal, 8*(1), 108-117. Retrieved January 15, 2008 http://0-vnweb.hwwilsonweb.com.novacat.nova.edu/hww/results/getResults.jhtml?_DARGS=/hww/results/results_common.jhtml.7

Tynan, B., & Colbran, S. (2006, December 3-6). *Podcasting, student learning and expectations.* Paper presented at the 23rd Annual Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) Conference: Who's Learning? Whose Technology? Abstract retrieved April 15, 2008, from http://www.ascilite.org.au/conferences/sydney06/proceeding/pdf_papers/p132.pdf

Van Nelson, C., Nelson, J. S., & Malone, B. G. (2004). Predicting success of international students in an American University. *College and University Journal, 80*(1), 19-27.

Von Wörde, R. (2003). Students' perspectives on foreign language anxiety. *Inquiry, 8*(1), 1-16. Retrieved January 15, 2008 from http://www.vccaedu.org/inquiry/inquiry-spring2003/i-81-worde.html

Walls, S. M., Kucsera, J. V., Walker, J. D., Acee, T. W., McVaugh, N. K., & Robinson, D. H. (2010). Podcasting in education: Are students as ready and eager as we think they are? *Computers & Education. An International Journal, 54,* 371-378.

Ward, C. (2001). *The impact of international students on domestic students and host institutions. A literature review prepared for the New Zealand Ministry of Education.* Retrieved July 15, 2006, from Victoria University of Wellington, Centre for Applied Cross-Cultural Research Web site: http://www.vuw.ac.nz/cacr/reports/docs/Ward-2001.pdf

Wicklein, R. C. (1992). Critical issues and problems in technology education. Technical Foundation of America. San Marcos, TX. (final report)

Wilton, L., & Constantine, M. G. (2003). Length of residence, cultural adjustment difficulties, and psychological distress symptoms in Asian and Latin American international college students. *Journal of College Counseling, 6*(2), 177-186.

Wolff, T. B. (2006). Podcasting made simple. *Proceedings of the 34th annual ACM SIGUCCS Conference on User Services, Canada*, 413-418.

Woodrow, L. (2006). Anxiety and speaking English as a second language. *Regional Language Centre, 37*(3), 308-328.

Yashima, T. (2002). Willingness to communicate in a second language: The Japanese EFL context. *The Modern Language Journal, 86*(1), 54-66.

Yeh, C. J. (2003). Age, acculturation, cultural adjustment, and mental health symptoms of Chinese, Korean, and Japanese immigrant youths. *Cultural Diversity and Ethnic Minority Psychology, 9*(1), 34-48.

Yeh, C. J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counseling Psychology Quarterly, 16*, 15-28.

Yildiz, S., & Bichelmeyer, B. A. (2003). Exploring electronic forum participation and interaction by EFL speakers in two Web-based graduate-level courses. *Distance Education, 24*(2), 175.

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *The Modern Language Journal*, 75, 426-439.

Young, P. M. (2005) Asian American adolescents and the stress of acculturation: Differences in gender and generational levels. Ed.D. dissertation, Northern Arizona University, United States -- Arizona. Retrieved April 1, 2008, from ProQuest Digital Dissertations database. (Publication No. AAT 3189083)

Zapalska, A., & Brozik, D. (2006). Learning styles and online education. *Campus-Wide Information Systems, 23*(5), 325-335.

Zhai, L. (2002). *Studying international students: Adjusting issues and social support*. ERIC Number ED474481. Retrieved May 28, 2007, from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/e2/95.pdf

Zhao, C-M., Kuh, G. D., & Carini, R. M. (2005). A comparison of international student and American student engagement in effective educational practices. *Journal of Higher Education, 76*(2), 209-232.

Zhao, K. (2006). The impact of adjustment problems on academic achievement of international undergraduates at West Virginia University. Morgantown, WV: University of West Virginia. Retrieved May 20, 2007 from http://kitkat.wvu.edu:8080/files/4706/Zhao_Ke_thesis.pdf