USING THE TRANSTHEORETICAL MODEL TO PREDICT INTERCULTURAL WILLINGNESS TO COMMUNICATE

by
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A Thesis submitted in Partial Fulfillment of the requirements for The Master of Science Degree

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THE UNIVERSITY OF WISCONSIN-WHITEWATER
February 20, 2009

Thesis approval page

Acknowledgements

I would like to thank Dr. Ray Baus for his many hours of editing, expertise in SPSS, and challenging me to look beyond the obvious. I would also like to thank Dr. Barbara Monfils and Dr. Susan Wildermuth for their encouragement and ideas. Finally, I would like to thank my wife, Jennifer, for all her love, support, and encouragement throughout the many long hours of study and re-writes.

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February 20, 2009

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Using the Transtheoretical Model to Predict Intercultural Willingness to Communicate

The past several decades have led to an increased awareness by Americans of the necessity of interacting with the rest of the world. Easy and affordable transportation and communication devices have greatly decreased the vastness of the global community. Other factors such as the outsourcing of goods and services to countries across the globe have led Americans to significantly interact with other cultures. Despite these global changes, Americans are often reluctant to learn foreign languages, preferring to speak English or not communicate at all. If this trend continues, the United States will lose its competitive edge in the business world and fall further behind in many other areas.

This study of Midwest college students (n = 211) uses a quantitative approach to examine the application of the Transtheoretical Model (also known as the Stages of Change) to college students' value of learning a foreign language and their intercultural willingness to communicate (IWTC). The original questions from the transtheoretical model were modified to incorporate students' attitudes toward learning a foreign language. The IWTC was reproduced in its original form.

The study utilized four research questions. First, which language would college students perceive as being the most valuable to learn? Second, how do perceived value of a language, stage of second language learning readiness, and IWTC scores correlate? Third, to what extent does the stage of change model predict value of L2 learning scores? Fourth, to what extent does the stage of change model predict IWTC scores?

The study revealed several important findings. First, Spanish is the most valued language by Midwest college students. On a scale of 1 to 10 (with 1 being least valued

and 10 being most valued), Spanish was rated as 9, in contrast with the next most valued only scoring 5. Second, there is significant correlation between value of learning a foreign language, IWTC, and the five stages of change. Third, the transtheoretical model can be used to predict value of learning a foreign language and IWTC.

This study is applicable to businesses and educational institutions. Multinational organizations could use the information to evaluate employees' attitudes toward learning a foreign language and develop training seminars to increase employees' willingness and ability to communicate with other cultures. Educational institutions should develop courses tailored to expanding students' world views and to instill the value of being multilingual.

Using the Transtheoretical Model to Predict Intercultural Willingness to Communicate

As globalization affects the United States, changes will happen regardless of citizen readiness. One change involves the importance of second language skills; that is, of learning and using a second language. Although English still dominates Americans' communication, the use of languages other than English at home has steadily increased from 1990. In 2007, 19.7% of the U.S. population was using a non-English language at home. This is up from 17.9% in 2000 and 13.8% in 1990 (Lowe, 2008). Furthermore, in metropolitan areas such as Los Angeles and Miami, a staggering 53.6% and 49.1% respectively, speak a non-English language at home (Lowe, 2008). Of the languages spoken, Spanish is most frequent at 28.1 million, followed by other Indo-European (10.0 million), and Asian and Pacific Island languages (7.0 million) (Shin & Bruno, 2003).

Historically, Americans have been remiss in learning a foreign language. Sigsbee (2002) points out four reasons Americans don't properly learn a foreign language: (1) the United States has a low quality language curriculum—students should start a foreign language in elementary school and study it continuously through high school and spend at least one semester of college in the foreign country of choice; (2) foreign language classes tend to be block scheduled rather than every day; (3) there are not enough teachers proficient in a foreign language to teach students; and (4) there are no standardized goals and tests similar to what many other countries are using—students in other countries who fail state language exams do not move on to the next level of education.

The question remains: Why don't Americans make a more concerted effort to learn a foreign language? While there are many facets to the answer of this question, perhaps one of the most obvious is that they are not ready to learn. Americans who know the importance of learning a foreign language in communicating with other cultures do not take action. More importantly, those who could provide the interventions necessary for the average student to be moved to action, do not. However, before changes can be implemented, it is important to assess Americans' readiness to learn a foreign language.

This chapter addresses Americans' readiness to communicate in a foreign language in four parts. First, it discusses the tenets and uses of the Transtheoretical Model. Second, it discusses the major tenet and applications of the Intercultural Willingness to Communicate (IWTC) Theory. Third, it examines modern language acquisition models. Finally, it integrates the Transtheoretical Model with IWTC and language acquisition theories to explain how this could be used to predict a person's willingness to learn a foreign language and the interventions necessary to learn.

Transtheoretical Model (Stages of Change)

McConnaughy, Prochaska, and Velicer (1983) proposed that humans progress through four stages of change as they seek to identify and eliminate problems they have. The person's readiness to change a behavior is directly correlated to the stage they are in. Using a 32 item instrument and a sample of 155 participants, the researchers identified four stages of change: precontemplation, contemplation, action, and maintenance. Subsequent studies added preparation (before action) and termination (after maintenance).

A second study to cross-validate the first was completed with a new sample. This second study yielded similar results (e.g., McConnaughy, DiClemente, Prochaska, & Velicer, 1989). In this second study, 327 adult outpatients recovering from addictions to alcohol, tobacco, and other drugs, from the Texas Research Institute for Mental Sciences were surveyed with the same 32 item questionnaire used in the first study (i.e., McConnaughy, et. al, 1983). As with the first study, participants clustered into several categories.

Precontemplation. In this stage, the person has not even thought about changing a behavior or performing an action. In precontemplation, the person is not ready to change at all because the thought of change has not yet occurred. The change agent must perform an intervention on the participant to move them along the scale if change is to occur. For example, a person living in a homogenous community and work environment may not ever consider the benefits of leaning a foreign language.

Contemplation. In this stage, the person realizes that there is something they should change or an action they should perform. The person does not necessarily know what action to take—only that action needs to occur. In contemplation, the intervention should identify steps one should take to perform an action. For example, a person who wants to lose weight could be provided with a diet plan that includes what foods to eat and in what amounts.

Decisionmaking (preparation). This stage was added after the original study in 1983 because there was a clear cluster of people who were beyond contemplation, but not to action yet. In this stage, a clear plan of action has been identified and the only part that

remains is implementing that decision. Individuals in this stage are very ready to change; they need only a little more motivation before they move to action.

Action. In this stage, corrective action is already being performed. For example, if a person is trying to lose weight, the action is following a diet plan. If the action is to quit smoking, then the person has already quit and is following a strategy to resist urges. In the action stage, the person is ready to change as evidenced by the fact that they are already doing something about what they view as a problem.

Maintenance. In this final stage of change, the action has been performed; however, it is an ongoing process to continue on a new path. The person is ready to stay changed and seeks ways to keep from slipping into old habits while, at the same time, performing new habits. For example, a recovering alcoholic will go to Alcoholic Anonymous meetings to stay strong.

Termination. Although this is not part of readiness, it does identify when a person is no longer concerned about whatever change was made previously. The person believes that the change is complete and that there is little or no chance of regression. This stage could also indicate that the person—due to shifting priorities, reframing of behavior, or difficulty of the target behavior—has given up or abandoned their course of action.

For any long lasting changes to occur, specific interventions must be enlisted. Intervention must be tailored to the stage of change for it to have maximum impact (McConnaughy, et. al, 1983). This is not always clear cut. There are inter-stage zones that people are in and interventions generally target larger audiences. Fortunately, there is

correlation between each of the stages, so that while they are in some ways distinct, they are also related (McConnaughy, 1989).

While the Transtheoretical Model was originally designed to assess people with clinical dependencies such as drugs and alcoholism, researchers quickly realized that its applications exceed those narrow parameters. This model uncovers thought processes that go into any series of actions and should be thought of as ways to understand change behavior but not limited to the confines of one particular change effort. Some of the newer applications will be discussed.

An noticeable extension study of McConnaughy, et. al.'s (1983) work regards helping teenagers quit smoking. Pingree, Boberg, Patten, Offord, Gaie, Schensky, Gustafson, Dornelas, and Ahluwalia (2004) applied the Transtheoretical Model to 280 current and former adolescent smokers in an attempt to find out what they felt worked or could work to help them quit smoking. While the study encompassed each stage of change and found that participants were at different cognitive and emotional stages in the process of change, the results primarily focused on precontemplators and contemplators (Pingree, et. al., 2004). Three categories were identified: first, contemplators were much more worried about acceptance in peer groups than precontemplators; second, regarding smoking substitutes, contemplators had given much more thought to it than precontemplators; finally, regarding smoking cessation aids, a reward for quitting (such as money or a gift certificate) was rated at the top of the list for precontemplators and contemplators (those who were former smokers or in the preparation stage cited influence and support of friends and/or family).

Another application involved adolescent offenders. Hemphill and Howell (2000) studied children (12-18) who had repeatedly broken the law. The researchers tried to determine how ready each of the children was to change their deviant behavior. They found that “mean scores and alpha coefficients for the mean scores” were very similar to those of McConnaughy, et. al. (1989) (Hemphill & Howell, 2000, p. 377). This indicates the usefulness of the Transtheoretical Model as a predictor for adolescent offender change.

A third application was made to exercise. Lippke and Plotnikoff (2006) examined how the stages of change affected social-cognitive theory and protection motivation theory. Definite patterns and clusters were found. They concluded that, “Physical activity interventions should be tailored to stage of readiness” (Lippke & Plotnikoff, 2006, p. 300). However, Hyunyi and Salmon (2006) warn that there are sometimes unintended consequences to the interventions used in various heath campaigns such as “avoidance [of other people] and fatalism” (p.97).

A fourth study was conducted to examine how the Transtheoretical Model could be used to improve communication regarding advance care planning. Weslley and Briggs (2004) apply four of the core stages to show how nurses should approach many situations they may daily confront. Nurses may hear “Huh? I don’t know what you’re talking about” (precontemplation), “I’m interested in knowing more” (contemplation), “What do I need to do?” (preparation), or “Here’s what I’ve done” (action), and need to know which intervention meets that concern (Weslley & Briggs, 2004, pp. 10-11). They conclude emphatically that “The Transtheoretical Model provides a useful and practical

way to organize interventions in what can be a difficult topic for both healthcare providers and patients" (Weslley & Briggs, 2004, p. 12).

It seems logical that the Transtheoretical Model could be applied to communication beyond health care. As technology makes it easier to travel and intercultural communication more likely, "L2" ability will become more necessary, and more sought after. With that in mind, if people are not willing to interculturally communicate, it will greatly decrease their ability to create positive experiences and meaningful relationships. Before showing how the Transtheoretical Model applies to intercultural willingness to communicate (IWTC), it is important to understand the basic tenets of the IWTC theory.

Intercultural Willingness to Communicate

While desire to learn a language is not equal to intercultural willingness to communicate, they are closely related. Tannebaum and Tahar (2008), while comparing attitudes of Arabs and Jews to learning and speaking Arabic and Hebrew, found that "[Willingness to communicate] was lowest among students from the Jewish monolingual school" (p.291). Conversely, Jewish and Arab students educated in the same school with each studying the other's language, scored much higher on the WTC scale (Tannebaum & Tahar, 2008). This was believed to be related to the amount of positive social interactions each had with the other ethnicity. A decrease in negative stereotyping would reduce prejudice and lead to more desire to work with and befriend the other group (i.e. Allport, 1954).

Many factors beyond language learning would contribute to IWTC; however, learning a language is not enough. After all, simply learning a foreign language is of little value if one chooses not to communicate with other cultures when the opportunity arises. Kassing (1997) developed an Intercultural Willingness to Communicate Scale to find out how disposed people are to talk with someone of a different culture.

In this study, Kassing (1997) built on the Willingness to Communicate work by McCroskey (1992) to formulate more than just one's willingness to talk with any given person, but specifically with someone of a different culture than one's own. His study commenced in two phases. The first phase consisted of 390 undergraduate students. The second phase consisted of 505 undergraduate students. Kassing's scale combined six filler items from the Willingness to Communicate Scale (the WCS was a 20 point instrument developed by McCroskey (1992)) with six items "written to reflect intercultural willingness to communicate (e.g., talk with someone from another culture)" (Kassing, 1997, p. 402). Kassing (1997) notes that the new scale could be useful in "cultural adaptation" (p. 406) and "to make predictions about the success of foreign ambassadors, international students, and corporate expatriates" (p. 406).

The idea of IWTC has been used in several studies since its inception in 1997. Roach and Olaniran (2001) used IWTC in part of a broader study of international teachers' assistants (ITA) and perception of student ratings. They did not find significant correlation between IWTC and "satisfaction with students, relationship with students, or ITA perceptions of student ratings of their instruction" (p. 32). They also noted that higher levels of IWTC do not necessarily mean closer relationships with the students.

While Kassing briefly mentioned the impact of ethnocentrism on IWTC, this concept was further explored in the following three studies. First, ethnocentrism and intercultural communication apprehension are negatively correlated to IWTC (Lin & Rancer, 2003). Second, men are more egocentric and score lower on IWTC tests than women (Lin, Rancer, & Lim, 2003). Finally, Americans are more egocentric than Koreans, but less than Romanians; Americans are also more likely to engage in intercultural communication than these other two groups (Lin, Rancer, & Lim, 2003; Lin, Rancer, & Trimbitas, 2005).

While there are many avenues through which communication can occur, the primary means is through verbal or signed symbols. Although, tone, inflection, facial features, body movements, and other nonverbal behaviors all contribute to the overall communication effort, they are primarily affects reinforcing the spoken or signed language. For a majority of people spoken language is most frequently used. With this in mind, it seems reasonable that language learning should be an attribute in people high in IWTC. After all, if two cannot speak the same language, it greatly reduces the philosophical depth to which any conversation can progress.

Unfortunately, intercultural communication cannot be explained through one or two models. There are numerous variables affecting IWTC. The most prevalent one addressed by the literature is communication apprehension. This is often measured in studies related to willingness to communicate (e.g., Yashima, 2002; Barraclough, Christophel, & McCroskey, 1988). Communication apprehension is also seen as related

to temperament of persons involved in communication (Neuliep, Chadouir, & McCroskey, 2003).

A combined focus on IWTC and the TM may offer insights and a practical application for researchers in speech communication. Similarly, advocates of transtheoretical approaches to behavior change might gain new perspectives that are conducive to the development of health and wellness. The following section attempts to connect these two constructs.

Language Acquisition Theories

Since acquisition of a first language is a fundamental part of surviving in society and learning a second language can prove equally necessary, numerous studies and literature reviews have approached language from a systematic perspective (e.g. De Bot, 2008; Van Geert, 2008; Swain & Deters, 2007). Theses studies view language acquisition as a dynamic process. Language learning involves four major principles: (1) language learning moves from holophrastic to telegraphic; (2) learners over generalize the rules of language; (3) receptive capabilities exceed expressive ones; and (4) we pay attention to the whole communication act (Goss, 1995). These principles hold regardless of the language one is learning. However, the process for learning one's first language is also dissimilar in some ways from those of learning a second, third, or fourth language. Foremost, one's first language is an unintentional consequence of repetitious sounds made by those surrounding infants and small children. Conversely, most second languages are learned through intentional choices made by the language student.

While a desire to interact with their immediate surrounding motivates infants and young children to learn their first language, the same can be said of L2 learning. Mori and Gobel (2006) found that Japanese students (especially female) were motivated by "their interest and desire to travel and/or study overseas" (p.205). These students would have had a very difficult time communicating if they had not learned English; hence, the strong motivation.

In addition to the motivational factors, scholars have long argued about the appropriate age learners should be when they start learning a second language. Popular thought holds that the younger the learner is the better. This has given rise to total immersion pre-schools and kindergartens as well as charter schools taught in a foreign language. However, Larson-Hall (2008) concluded that language acquisition is based on total input (a cumulative process) rather than due to an optimal age. The reason language students who started younger tend to outperform those who started later is that they had more cumulative input over the years. There are, however, slight advantages to younger learning regarding "phonological and basic morphosyntatic abilities" (Larson-Hall, 2008, p.58).

Theory Extension

Arguably, learning a foreign language is important for personal growth and cultural sensitivity (Gilman, 2000). One study found that many students' strongest motivation factors come from "attainment value and intrinsic value" of the target language (Mori & Gobel, 2006, p.204). It is also helpful in conducting business in countries that do not speak one's native language (Sigsbee, 2002). Unfortunately, these

reasons have not been good enough for Americans to revamp their educational system to grant foreign languages the high place they deserve (Sigsbee, 2002).

Unlike other countries, Americans have not felt an urgent need to learn. For instance, Europe is comprised of dozens of countries with many different languages. One only has to travel several kilometers from home before encountering another language. This makes second language learning for them a necessity rather than an option. This is unlike Americans who can travel for hundreds, or even thousands of miles and never have to speak a second language.

Global forces could change this. Even now, Spanish is becoming increasingly prevalent in American culture. Furthermore, the United States is losing its status as a dominant global market player. During the Cold War when Americans could categorize Russia as the enemy, Americans did not have the need or desire to learn Russian. This is in much the same way the U.S.A. characterized China as another communistic state unworthy of association. However, this is no longer the case. While Russia has not become a formidable player in global economics, China has. Statistics indicate that, "China…[will]…overtake the U.S. as the world's largest economy in ten years" (Hessler, 2008, p. 62). While this may not affect average citizens, it will certainly affect those wishing to be profitable in international business. It also creates a power shift. Historically, the ruling power controls the language of business. This means that in ten years, the language of business could shift from English to Mandarin.

Are Americans ready for a language shift of this magnitude? No longer could language learning be looked at as a recreational hobby. Rather, it would be a necessity for

trade. Fortunately, this change can be made easier though awareness of communication principles.

Intercultural Willingness to Communicate could be assessed through the Transtheoretical Model and vice versa. IWTC can be defined as one's predisposition to talk with someone of a different culture. When applying predisposition to the Stages of Change, one gains a new understanding of how to influence and raise another's IWTC.

To gain better insight into how this application may play out, the following section applies the stages of change to the communication model. While the application is hypothetical, it provides a starting point for examining each of the stages and developing interventions specific to a particular stage. In addition to the four original stages (precontemplation, contemplation, action, and maintenance), additional stages (preparation and termination) have been added.

It is important to realize that communication is a holistic process involving verbal and non-verbal expression; however, the non-verbal usually serves a secondary role in accentuating and clarifying the verbal—it does not replace it. Therefore, the verbal aspect of language (not including sign language) is often the primary mode of communication, targeted when learning a foreign language.

Precontemplation would mean that the person has never thought about learning a foreign language. If they had thought of learning a foreign language, they probably would have thought of using that language to communicate with someone who speaks that language. After all, there would be little value in taking a Spanish class merely for entertainment or with the intent of strictly conversing with one's classmates. People

usually take a language class with the intent of using that language to dialog with a native speaker of that language and/or someone who speaks the target language but not one's first language.

Contemplation would mean that the person has thought of talking with a person from another culture and brainstormed various ways of doing that. Most likely these thoughts are triggered by seeing an individual one would like to talk to or by reading about a need somewhere else which can only be filled through language acquisition. For example, if one desires to work for China Airlines and he/she doesn't speak English or Japanese, there would be a definite reason to think about learning one of those languages. This would also increase one's IWTC scores because one would want to practice communicating in that other language (or at least become more familiar with the other culture).

Preparation would mean that the person has identified a means for acquiring more skills for cross-cultural communication. This is where there may not be a direct correlation between this stage and IWTC. While it seems logical that having high scores on the IWTC would mean that one is generally more open to dialogue with other cultures, it doesn't follow that preparation leads to higher IWTC scores. If an individual is very focused on one culture, he/she may exclude all other cultures. This means that one would be very likely to talk with someone from the culture being focused on, but very unlikely to talk to someone from a different culture.

In the action stage, a person would be actively learning a foreign language with the intent to use it to communicate with someone from the culture that language

represents. It would seem uncharacteristic for someone to actively study French with the expectation of communicating with someone from Russian culture. In addition, it would seem unlikely that someone would study a foreign language with no desire to communicate with another person in that language. It could be argued that classical Greek, classical Hebrew, Latin, and certain other non-spoken languages are studied for the purpose of interpreting and understanding ancient manuscripts and not for the sake of speaking to others. It would seem unlikely that people would study a commonly spoken language for this purpose.

The maintenance stage would assume that the basics of a language have been mastered and that communication can occur in that language. IWTC would argue that having this basic knowledge would make it much more likely for a person to communicate with someone from a culture similar to the language learned but not necessarily in that particular language. For example, an Australian may have learned some Korean. The Australian is more likely to talk to a Korean to maintain speaking skills; however, they may elect to speak English instead. At this stage, if one is high on the IWTC scale, one may contemplate learning another language.

In communication, the termination stage could be viewed more as an interruption or possibly a loss of language skills. Certain events may contribute to this interruption or loss, leading to a lowering of IWTC. When it comes to language learning, we forget for several reasons. First, the information was poorly learned at the start. This would happen during the action stage in that the teacher might be ineffective, the student may have poor study habits, or both. Secondly, there is interference of some sort. This could be due to

one's prior information learned such as ethnocentrism or one's first language. If one believes that their culture is the best culture in the world, they may be less inclined to apply themselves to ardent language study. Third, one's first language may complicate learning a second language—especially in tones and intonations. This may discourage the language learner when he/she is unable to clearly communicate the newly learned language. Finally, interference may come from new learning demands. Perhaps a new language takes priority over the one being studied or the need to learn that language is diminished causing the person to refocus his/her energies elsewhere.

Uses of theory extension. Infusing the Transtheoretical Model with tenets of Intercultural Willingness to communicate would be beneficial to a wide range of educators and practitioners. For educators, they would construct lessons based on what stage of change the student was in. If the student had no desire to communicate with someone of a different culture, the teacher could devise ways to raise the student's awareness of the need for other cultures. For practitioners (especially those in multinational organizations), it would be useful to know which of the employees are most open to communicating with other cultures and what stage of readiness they are in to learn that culture's language. This would increase the likelihood of successful meetings with representatives from other cultures. Given this reasoning, we chose to investigate the following research questions.

RQ1: Which language would college students perceive as being the most valuable to learn?

RQ2: How do perceived value of a language, stage of second language learning readiness, and IWTC scores correlate?

RQ3: To what extent does the stage of change model predict value of L2 learning scores?

RQ4: To what extent does the stage of change model predict IWTC scores?

Chapter 2

Method

Participants

Participants were 211 students from a Midwest college. The participants were 40.3% male (n = 85) and 59.7% female (n = 126). The participants ranged in age from 17 to 56 (n = 211, m = 21.65, sd = 4.78). In this sample, 91.9% (n =194) reported that they were Caucasian, 2.8% were African American (n = 6), 1.9% were Asian/Hmong (n = 4), and 2.8% did not disclose their racial status (n = 6). In regards to major, 42 different majors were reported. Foremost, 18.5% (n = 39) communication, followed by 10.9% (n = 23) accounting/finance, 9% (n = 19) business, and 4.3% (n = 9) social work. Finally, 98.1% (n = 207) reported that English was their first language. Two participants reported Hmong and two reported Albanian as their first languages.

Instrument

A five-part, 65-question survey was developed. Section I used a modified version of the stages of change scale. For each of 32 questions of the original McConnaughy, et. al., (1983) survey, the phrase “foreign language” was inserted before (or in place of) the word “problems.” For example, question one was adapted from, “As far as I’m concerned, I don’t have any problems that need changing” to “As far as I’m concerned, I don’t have any foreign language problems that need changing.” Section II reproduced Kassing’s (1993) intercultural willingness to communicate scale (reliability alpha of .83). Section III asked participants to rate on a scale of one to ten how valuable they thought it was to learn the following major languages: Italian, Chinese, German, Japanese, Arabic, Spanish,

French, and Russian (1, not valuable; 10, very valuable). Section IV asked participants about the language(s) they took in high school, proficiency in a language, their perceived value of learning an L2, and the value they perceived a prospective employer would place on L2 skills. Section V asked for the following demographic information: age, sex, race, major, estimated GPA, and first language.

Procedure

Surveys were collected from April 22 to July 7, 2008. Participants were surveyed in a classroom in which each had his/her own desk. Both researchers were present in the room during the survey. Participants were asked to read and sign a consent form, turn the consent form in to the researchers, and then fill out the survey. Participants were informed that their participation was voluntary and that they could withdraw from the study at any time.

Due to the heavy influence of communication on this study, all the participants surveyed were part of a communication class. Most were students in introduction to human communication. This greatly reduced the chance of duplicating participants. When the survey was administered to a different class, students were asked not to participate if they had already taken the survey. In most cases, there was no remuneration for participation in the survey; however, at the teacher's discretion, extra credit was allowed for participation, though the same amount of extra credit could be awarded for a different project.

The data was entered into the SPSS program where various statistical tests were performed. The first research question asked which language college students perceived

as being the most valuable to learn. The second research question asked how do perceived value of a language, stage of second language learning readiness, and IWTC scores correlate. This was evaluated in two parts. First, value of learning a second language was measured by combining all scores in Section III. Second, means of readiness to learn, the stage of change, and the value of learning a foreign language were correlated. The third research question asked to what extent does the stage of change model predict value of L2 learning scores. It was evaluated by running a one-way analysis of variance. The five variables representing the stages of change were placed in the independent variable box and the variable representing value of learning a second language was placed in the dependant list. The fourth research asked to what extent does the stage of change model predict IWTC scores. It was evaluated by running a one-way analysis of variance. The five variables representing the stages of change were placed in the independent variable box and the variable representing intercultural willingness to communicate was placed in the dependant list.

Because questions were re-worded slightly, to reflect this area of study, factor analysis was conducted on the 32 item stage of change model. Criteria for factor extraction included the following: Eigen value = 1, at least three items to measure each factor, and a Cronbach alpha reliability of at least .7 for the items representing each factor. Based on these criteria, five factors were retained (see Appendices B & C).

The first factor included 12 items and appeared to measure the action stage. Inter-item alpha reliability equaled .94. The second factor included seven items and appeared to measure the precontemplation stage. Inter-item alpha reliability equaled .81. The third

factor included five items and appeared to measure the maintenance stage. Inter-item alpha reliability equaled .79. The fourth factor included three items and appeared to measure the preparation stage. Inter-item alpha reliability equaled .73. The fifth factor included three items and appeared to measure the contemplation stage. Inter-item alpha reliability equaled .65.

Value of learning a second language was calculated by combining the scores on value students placed on eight major world languages. We believe that the more a person values a language, the higher they would score one each language. A higher combined score would yield a higher total value placed on learning a foreign language. Alpha reliability for the eight items was .82.

Chapter 3

Results

The first research question asked which language would college students perceive as being the most valuable to learn. College students overwhelmingly reported Spanish as the most valuable language to learn (n = 211, m = 9.11, sd = 1.47), followed by Chinese (n = 211, m = 5.22, sd = 3.02), and French (n = 211, m = 5.20, sd = 2.85). Russian ranked lowest (n = 211, m = 3.63, sd = 2.51). (See Table 1).

Research question two asked how do perceived value of a language, stage of second language learning readiness, and IWTC scores correlate. Readiness to learn a foreign language was negatively correlated to precontemplation (n = 207, -.35, $p < .01$), whereas the other stages showed a positive correlation: contemplation (n = 207, .23, $p < .01$); preparation (n = 208, .17, $p < .05$); action (n = 206, .19, $p < .01$); and maintenance (n = 207, .24, $p < .01$). Intercultural willingness to communicate correlated with the stages of change as follows: precontemplation (n = 208, -.23, $p < .01$), contemplation (n = 208, .16, $p < .05$), preparation (n = 209, .05, not sig.), action (n = 208, .32, $p < .01$), and maintenance (n = 208, .32, $p < .05$). Readiness to learn showed a positive correlation to intercultural willingness to communicate (n = 208, .32, $p < .05$).

The third research question asked if the stages of change model could predict how much students valued learning a second language. Results indicated that they could. Regression of the model on the value of learning a second language was found significant ($F = 6.696$, df = 5, 199, $p < .01$). The model predicted 14.4% of the variance between the stages of change and the value of learning a foreign language. Within the stages of

change model, the precontemplation stage represented the only significant predictor (see Appendix G).

The fourth research question asked if the stages of change model could predict students' willingness to interculturally communicate. Results indicated that they could. Regression of the model on the IWTC was found significant ($F = 7.966$, $df = 5, 201$, $p < .01$). The model predicted 16.5% of the variance between the stages of change and IWTC. Within the stages of change model, action and maintenance stages represented the most significant predictors (see Appendix H).

Chapter 4

Discussion

The current study underscored the idea that level of readiness for an action can be measured (e.g. McConnaughy, et. al., 1983; McConnaughy, et. al., 1989). Consistent with these (and other studies), participants clearly clustered into separate stages of change. Also consistent with other studies (i.e. Hemphill & Howell, 2000; Lippke & Plotnikoff, 2006; Weeslley & Briggs, 2004), the Transtheoretical Model can be applied with confidence to areas of life beyond clinical dependencies.

This study applied the stages of change to foreign language learning. Participants grouped into five clusters. Results indicate that college students in the Midwest score highest (on a five-point scale) in maintenance (3.33), followed by preparation (3.25), contemplation (3.20), action (2.46), and precontemplation (2.29). The number of participants in each category who scored high (between 4 and 5) is as follows: precontemplation: 7; contemplation: 54; preparation: 61; action: 17; and maintenance: 52. Knowing this logically led to the first research question.

The first research question asked which language would college students perceive as being the most valuable to learn. It is unsurprising that a group of students surveyed in the Midwest would rank Spanish as the most valuable language to learn. First, many students take Spanish in high school. This exposure would likely create a latent priority for Spanish, given the numbers of people who believe it is important, more are likely to believe it is important. Secondly, the United States is bordered by Canada and Mexico. Although many Canadians speak French, it is commonly assumed that all Canadians are

bilingual; however, most people who travel in Mexico often find it more challenging to communicate in English. This helps with the perception that Spanish needs to be studied. Likely the most compelling reason stems from the number of Mexican and Latin American nationals immigrating to the United States. According to the 2007 data released by the U.S Census Bureau, over 35 million (12.3%) of Americans speak Spanish at home (Lowe, 2008). In addition, there are an estimated 12 million undocumented immigrants (predominately Hispanic) currently living in the United States (Passel, Capps, & Fix, 2004; Luddden, 2008). These numbers are expected to continue rising.

Strangely enough, given the real and perceived value of Spanish, students rate their Spanish speaking ability very low. This could indicate low self efficacy when it comes to second language communication. In other words, if students were forced to use their foreign language, they would discover that their ability far exceeded their estimation. Another possibility is that internal and external motivating factors are not strong enough to overcome natural inertia. In other words, people will not act wholeheartedly on a challenge that is not assured to happen.

Studying a second language is a graduation requirement for many high schools and colleges; however, students rarely practice what they learn. They may intellectually subscribe to the benefits of a second language, but the opportunity to practice it is limited to, at best, a semester abroad. Schools do not have the time or efficiency to provide intensive, quality language training.

The second research question asked how the perceived value of a language, stage of second language learning readiness, and IWTC scores correlated. It is reasonable that

each variable should show significant correlation. Each of the concepts is intuitively related to the others. Although the preparation stage does not significantly correlate to IWTC, it could indicate that there is a middle ground between “willingness” and “unwillingness” to communicate interculturally.

The third research question asked to what extent does the stage of change model predict value of L2 learning scores. Although the total model predicts some of the value of learning a foreign language, the only stage that predicts L2 learning is precontemplation. Meaning, that if a person has never thought about learning a foreign language (they are not ready to learn), they place little or no value on learning a foreign language. This makes sense. When a person values something, they often think about doing it, are doing it, or have done it.

In this study, only 19% of students scored high on precontemplation (computed based on scores between 3 and 5). In contrast, the percentages for the other stages are as follows: contemplation (65%), preparation (66%), action (27%), and maintenance (69%). The disparity between action, inaction, and thinking about action, should be evident. One would think that there should be much action when there is much value.

Since this is not the case, it can be inferred that value is a very subjective item. People may not know how much they value an activity, experience, or object; yet, they may know how much they *don’t* value it. For example, if a person is in the maintenance stage of language learning, he/she may have the language so ingrained that they no longer consciously assign strong value to that language. It just is, rather than something to put great energy into.

Another issue regarding this discrepancy is the woeful scores reported on language proficiency. If 69% of students are indeed in the maintenance stage then foreign language proficiency scores (for those who have studied a foreign language in high school) should be relatively high. Instead, 78.5% (n = 140) rated his/her foreign language skills between “fair” and “poor.” Only 7.1% (n = 140) rated his/her foreign language skills from “very good” to “excellent.” This indicates a significant disconnect between an individual’s value of a language and willingness to do something about it. Perhaps this more accurately assesses individual’s perceived expectation of how much they *should* value that language.

The fourth research question asked to what extent does the stage of change model predict IWTC scores. Action and maintenance were the two stages that predicted students’ willingness to communicate with other cultures. Apparently, those who were motivated to learn and stay current on their chosen languages are also the ones motivated to communicate with other cultures. While this communication may or may not take place in a foreign language, the determination it takes to learn and maintain foreign language skills likely shapes the attitude of interacting with persons from another culture.

Although the stages of change model correlates to readiness to learn and IWTC, its usefulness in predicting outcomes was not as strong as expected. This could be explained through examination of the original use of the model: lifestyle choices relating to health. Chemical dependencies and other behavior patterns rarely occur overnight. Certainly the effects may take years to become evident with many signs along the way.

These signs are not as obvious when dealing with a language or a communication opportunity.

This study indicated several things. First, the stage of change model can be applied to L2 learning. If an educator determines student readiness to learn a target language at the onset of the class, he/she can tailor the curriculum to meet the students' needs. This may be easier to accomplish in a smaller classroom setting; however, in larger classes, it could indicate that classes should be split into readiness groupings.

Second, while value of learning a foreign language correlates to intercultural willingness to communicate ($n = 208, .32, p < .001$), the concepts are not equal. While this makes sense, it is unfortunate. If a person studies a language, he/she should be willing and seeking situations in which to communicate. Also, as one learns of a particular language, one's worldview should be expanding. This should increase the overall desire to interact with cultures different from one's own. Some of this disconnect could be explained as a result of educators who teach a language outside the context of its culture. Perhaps too much time is devoted to rote memorization of words, sentences, and grammar rules, with too little time spent framing the language in its culture. Language should not be extricated from culture, since it is the culture that made the language what it is. Furthermore, as students become more immersed in a particular culture, their interest in knowing and communicating with other cultures should be piqued.

This is directly related to student scores on the stages of change. While most students are thinking about taking action, few are doing anything about learning a second language. The goal of education should be to train individuals to function better as adults

and to teach and build on skills which will produce more effective members of society. However, this study indicates that students are not taking advantage of their current situation. This could reflect one of the limitations of the study in that many of those sampled were in-coming freshmen. It could also signal a deeper failure of the school system from elementary through higher education. Given the high percentage of students reporting having taken a foreign language in high school, it is disappointing how few report maintaining their language skills.

Since there is such a strong connection between the stages of change, IWTC, and perceived value of learning a foreign language it would seem appropriate to provide educational opportunities that would target each of the stages of change (e.g. Weslley & Briggs, 2004; Lippke & Plotnikoff, 2006). For those who are in precontemplation, it would be necessary to devise a way for those individuals to see a clear and present need for language improvement skills. If one is in contemplation, it would be advisable to combine the need with the opportunity to take a class. Students in the preparation stage need encouragement and resources to make the smoothest transition possible into action.

For those in action and maintenance stages, it is important to facilitate inter-language encounters with the focus on practicing what is being learned or maintained. For example, as part of the course, the educator could require students to have a "language buddy" that is fluent in the target language and meet with him/her several times per week. The teacher could facilitate this by establishing and maintaining positive relations with existing language communities through language exchange programs, big

brother/big sister programs, and/or other such peer-peer and peer/mentor relationships. Ideally this would improve language skills in addition to decreasing ethnocentrism.

Persons who are preparing or contemplating learning a foreign language may not feel like they are able to communicate with another culture yet. As a person acquires greater language skills, they also gain confidence to use those language skills. In the same way, intercultural exchanges build confidence to engage in more intercultural communication settings. Although these interactions are not of necessity carried out in a foreign language, knowledge of the foreign language may break down ethnocentrism stereotypes that lead to communication closedness. For example, if there is an intercultural communication exchange between a native English speaker and a native Mandarin speaker, neither may be comfortable speaking the other's language; however, if the English speaker can engage in primitive Mandarin, the Mandarin speaker may be much less reticent to speak the English he/she knows.

Equally important to cross-language interactions would be promoting self-efficacy, lower ethnocentrism, and lower communication apprehension. Each of these can contribute to the breakdown of the ultimate goal: effective language training.

Limitations

There were several limiting factors in this study. First, the sample was not a completely random sample of college students. By gathering a bulk of the surveys from introduction to human communication classes, there was a greater diversity of majors; however, there were a higher percentage of freshmen than other classes. Both value of learning a foreign language and IWTC may be cultivated mindsets as one moves through

college; therefore a wider sample of class levels may have produced different results. Second, the sample was taken in the Midwest—the lowest in language diversity of any region in the United States as defined by the U.S. Census Bureau. Third, all the data was based on self-reporting. Depending on one's level of self-efficacy, scores may be rated higher or lower than actuality. Ideally, scores could be correlated with a standardized language proficiency test.

Directions for Future Study

A follow up study should be conducted to determine the effect of self-efficacy, ethnocentrism, and communication apprehension to establish the part each plays in the gulf between value of language learning and willingness to communicate with other cultures. The study should also include a balanced number of students from each class level to measure how attitudes and actions change as students move through college. In addition, it is necessary to construct and administer a foreign language intervention tailored to each of the particular stages of change and then retest the subjects on the effectiveness of the intervention.

Conclusion

This study showed that an adapted stages of change model could be used to predict college students' intercultural willingness to communicate. It also showed that an adapted stages of change model could be used to predict how much people value learning a second language. In addition, the stages of change, IWTC, and L2 value were significantly correlated. Finally, among nine major languages, Spanish is most valued in the Mid-west.

Implications of this study should be evident in both theory and practice. First, educational institutions need to design and promote language learning and positive cultural interactions. This action must be intentionally cultivated within school systems starting in elementary school and followed through higher education. Second, companies that have multi-lingual consumers and staff should select carefully and offer appropriate training seminars, using value of L2 and IWTC as diagnostic tools.

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Appendix A: Questionnaire

Section I.

There has been some discussion on the importance of learning a second language.

Please rate the following on a scale of 1 to 5. (1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly Agree)

1. ____ As far as I'm concerned, I don't have any foreign language problems that need changing.
2. ____ I think I might be ready for some foreign language self-improvement.
3. ____ I am doing something about the foreign language problems that had been bothering me.
4. ____ It might be worthwhile to work on a foreign language.
5. ____ I'm not the problem one. It doesn't make sense for me to learn a foreign language.
6. ____ It worries me that I might regress on my foreign language I have already learned, so I am here [at school] to seek help.
7. ____ I am finally doing some work on my foreign language.
8. ____ I've been thinking that I might want to change something about myself so I've decided to learn a foreign language.
9. ____ I have been successful in working on a foreign language but I'm not sure I can keep up the effort on my own.
10. ____ At times a foreign language is difficult, but I'm working on it.
11. ____ Being here [at school] is pretty much of a waste of time for me because learning a foreign language doesn't have to do with me.
12. ____ I'm hoping this school will help me to better learn a foreign language.
13. ____ I guess I have foreign language deficiencies, but there's nothing that I really need to change.
14. ____ I am really working hard to learn a foreign language.
15. ____ I have a foreign language problem and I really think I should work on it.

16. ____ I'm not following through with what I had already learned as well as I had hoped, and I'm at school to prevent a foreign language regression.
17. ____ Even though I'm not always successful in learning, I am at least working on a foreign language.
18. ____ I thought once I had learned a foreign language I would be know it, but sometimes I still find myself struggling with it.
19. ____ I wish I had more ideas on how to learn a foreign language.
20. ____ I have started working on a foreign language but I would like help.
21. ____ Maybe this place will be able to help me learn a foreign language.
22. ____ I may need a boost right now to help me maintain the foreign language I've already acquired.
23. ____ I may be part of the problem [of not knowing a foreign language], but I don't really think I am.
24. ____ I hope that someone here will have some good advice for me on learning a foreign language.
25. ____ Anyone can talk about learning a foreign language; I'm actually doing something about it.
26. ____ All this talk about language is boring. Why can't people just speak their own language?
27. ____ I'm here to prevent myself from having a regression of my foreign language.
28. ____ It is frustrating, but I feel I might be forgetting the foreign language I thought I had learned.
29. ____ I have worries about learning a foreign language, but so does the next person. Why spend time thinking about them?
30. ____ I am actively working on learning a foreign language.
31. ____ I would rather cope with my first language than try to learn a new one.
32. ____ After all I had done to try to learn a foreign language, every now and again I realize I don't know it very well.

Section II

Please rate on a scale of 0 to 10 your likelihood of doing the following. (0 = no chance, 10 = every chance you get)

33. _____Talk with a close friend
34. _____Talk with a spouse or significant other (girlfriend, boyfriend).
35. _____Talk with someone I perceive to be different than me.
36. _____Talk with someone from another country.
37. _____Talk with a physician.
38. _____Talk with someone from a culture I know very little about.
39. _____Talk with a salesperson in a store.
40. _____Talk with someone of a different race than mine.
41. _____Talk with a relative or family member.
42. _____Talk with someone from another culture.
43. _____Talk with someone at work.
44. _____Talk with someone who speaks English as a second language.

Section III

How valuable do you think it would be for you to the following languages? 1 (not valuable) to 10 (very valuable). Please circle your response.

45. Italian (1……2…...3..…4…...5…...6…...7…...8……9……10)
46. Chinese (1……2…...3..…4…...5…...6…...7…...8……9……10)
47. German (1……2…...3..…4…...5…...6…...7…...8……9……10)
48. Japanese (1……2…...3..…4…...5…...6…...7…...8……9……10)
49. Arabic (1……2…...3..…4…...5…...6…...7…...8……9……10)
50. Spanish (1……2…...3..…4…...5…...6…...7…...8……9……10)
51. French (1……2…...3..…4…...5…...6…...7…...8……9……10)
52. Russian (1……2…...3..…4…...5…...6…...7…...8……9……10)

53. Are there any languages you value that are not included on the list above? (Yes / No). If Yes, which one(s) _____

Section IV

54. Did you take a foreign language in H.S? (Yes / No) If Yes, what language did you take? _____

55. Do you have speaking skills in a language other than your native language? ___Yes ___ No

(If you answered yes to #55, please go on to #56 and #57, otherwise go to #58)

56. How would you describe your "second language" speaking skill?
    a. Excellent
    b. Very good.
    c. Good
    d. Fair
    e. Poor
57. What second language do you speak? _____
58. How much do you value learning a second language? (1 = not at all, 10 = Very important)

    (1……2…...3..…4…...5…...6…...7…...8……9……10)

59. How much do you think a perspective employer would value second language ability? (1 = not at all, 10 = Very important)

    (1……2…...3..…4…...5…...6…...7…...8……9……10)

Section V

Please answer the following demographic questions

60. Age _____
61. Sex _____
62. Race _____
63. Major_____
64. Estimated GPA _____
65. First language _____

Appendix B: Original Grouping of Stages of Change

Precontemplation

Item:

1. As far as I'm concerned, I don't have any problems that need changing.

5. I'm not the problem one. It doesn't make sense for me to be here.

11. Being here is pretty much of a waste of time for me because the problem doesn't have to do with me.

13. I guess I have faults, but there's nothing that I really need to change.

23. I may be part of the problem, but I don't really think I am.

26. All this talk about psychology is boring. Why can't people just forget about their problems?

29. I have worries but so does the next person. Why spend time thinking about them?

31. I would rather cope with my faults than try to change them.

Contemplation

Item:

2. I think I might be ready for some self-improvement.

4. It might be worthwhile to work on my problem.

8. I've been thinking that I might want to change something about myself.

12. I'm hoping this place will help me to better understand myself.

15. I have a problem and I really think I should work on it.

19. I wish I had more ideas on how to solve my problem.

21. Maybe this place will be able to help me.

24. I hope that someone here will have some good advice for me.

Action

Item:

3. I am doing something about the problems that had been bothering me.

7. I am finally doing some work on my problems.

10. At times my problem is difficult, but I'm working on it.

14. I am really working hard to change.

17. Even though I'm not always successful in changing, I am at least working on my problem.

20. I have started working on my problems but I would like help.

25. Anyone can talk about changing; I'm actually doing something about it.

30. I am actively working on my problem.

Maintenance

Item:

6. It worries me that I might slip back on a problem I have already changed, so I am here to seek help.

9. I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.

16. I’m not following through with what I had already changed as well as I had hoped, and I’m here to prevent a relapse of the problem.
18. I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it.
22. I may need a boost right now to help me maintain the changes I’ve already made.
27. I’m here to prevent myself from having a relapse of my problem.
28. It is frustrating, but I feel I might be having a recurrence of a problem I though I had resolved.
32. After all I had done to try to change my problem, every now and again it comes back to haunt me.

Appendix C: Factor Analysis of Adapted Stages of Change

Active/Engaged

20. I have started working on a foreign language, but I would like help

6. It worries me that I might regress on my foreign language I have already leaned, so I am here at school to seek help.

12. I'm hoping this school will help me to better learn a foreign language.

8. I've been thinking that I might want to change something about myself, so I've decided to learn a foreign language.

10. At times a foreign language is difficult, but I'm working on it.

27. I'm here to prevent myself from having a regression of my foreign language.

3. I am doing something about the foreign language problems that had been bothering me.

17. Even though I'm not always successful in learning, I am at least working on a foreign language.

14. I am really working hard to learn a foreign language.

30. I am actively working on learning a foreign language.

7. I am finally doing some work on my foreign language.

25. Anyone can talk about learning a foreign language; I'm actually doing something about it.

Precontemplation/Disinterest

4. It might be worthwhile to work on a foreign language.

23. I may be part of the problem of not knowing a foreign language, but I don't really think I am.

31. I would rather cope with my first language than try to learn a new one.

13. I guess I have foreign language deficiencies, but there's nothing that I really need to change.

11. Being here at school is pretty much of a waste of time for me because learning a foreign language doesn't have to do with me.

26. All this talk about language is boring. Why can't people just speak their own language?

5. I'm not the one with the problem. It doesn't make sense for me to learn a foreign language.

Maintenance/Struggle

9. I have been successful in working on a foreign language but I'm not sure I can keep up the effort on my own.

22. I may need a boost right now to help me maintain the foreign language I've already acquired.

18. I thought once I had learned a foreign language I would know it, but sometimes I still find myself struggling with it.

32. After all I had done to try and learn a foreign language, every now and again I realize I don't know it very well.

28. It is frustrating, but I fell I might be forgetting the foreign language I thought I had learned.

Preparation/Realization of a Deficiency

2. I think I might be ready for some foreign language self-improvement.

1. As far as I’m concerned, I don’t have any foreign language problems that need changing.

15. I have a foreign language problem and I really think I should work on it.

Contemplation/Wishful thinking/Optimism

19. I wish I had more ideas on how to learn a foreign language.

24. I hope that someone here will have some good advice for me on learning a foreign language.

21. Maybe this place will be able to help me learn a foreign language.

Appendix D: Table 1

Descriptive Statistics for Research Question 1

	N	Minimum	Maximum	Mean	Standard Deviation
Italian	211	1.00	10.00	4.1043	2.56135
Chinese	211	1.00	10.00	5.2275	3.02771
German	211	1.00	10.00	4.7773	2.54720
Japanese	210	1.00	10.00	4.8952	2.88014
Arabic	210	1.00	10.00	4.1571	3.05125
Spanish	211	2.00	10.00	9.1137	1.47240
French	211	1.00	10.00	5.2085	2.85092
Russian	211	1.00	10.00	3.3651	2.51368

Appendix E: Table 2

Factor Analysis of L2 Stages of Change Model

	Component					
	1	2	3	4	5	6
Anyone can talk about learning a foreign language; I'm actually doing something about it	.892	-.212	.003	-.022	.101	.036
I am finally doing some work on my foreign language	.868	-.125	.093	-.028	-.007	-.049
I am actively working on learning a foreign language	.863	-.177	-5.56 E-007	-.015	.094	-.036
I am really working hard to learn a foreign language	.812	-.241	.097	-.048	.156	.036
Even though I'm not always successful in learning, I am at least working on a foreign language	.777	-.108	.280	.081	.000	.040
I am doing something about the foreign language problems that had been bothering me	.758	-.077	.144	-.006	-.068	-.164
I'm hare to prevent myself from having a regression of my foreign language	.676	-.231	.032	.025	.233	.324
At times a foreign language is difficult, but I'm working on it.	.661	-.094	.337	-.005	.086	.198
I've been thinking that I might want to change something about myself so I've decided to learn a foreign language	.639	-.215	.098	.341	.074	.063
I'm hoping this school will help me to better learn a foreign language	.627	-.191	.100	.001	.540	.068
It worries me that I might regress on my foreign language I have already learned, so I'm here at school to seek help	.625	-.040	.099	.071	.272	-.013
I have started working on a foreign language but I would like help	.499	-.064	.427	.220	.282	.090
I'm not the one with the problem. It doesn't make sense fore me to learn a foreign language	-.198	.750	-.127	-.199	.110	-.189
All this talk about language is boring. Why can't people just speak their own language	-.103	.724	-.087	-.042	-.157	.097
Being here at school is pretty much of a waste of time for me because learning a foreign language doesn't have to do with	-.199	.681	-.147	-.220	.128	.121

me						
I guess I have foreign language deficiencies, but there's nothing that I really need to change	-.113	.618	-.223	.030	-.186	-.034
I would rather cope with my first language than try to learn a new one	-.361	.614	.024	-.207	-.173	.129
I may be part of the problem, but I don't really think I am	.001	.534	.271	-.224	-.098	-.190
It might be worthwhile to work on a foreign language	.295	-.427	.246	.386	-.299	-.039
It is frustrating, but I feel I might be forgetting the foreign language I though I had learned	.047	-.031	.773	.065	.133	.098
After all I had done to try to learn a foreign language, every now and again I realize I don't know it very well	.029	.020	.749	.223	.082	.081
I thought once I had learned a foreign language I would know it, but sometimes I still find myself struggling with it	.269	-.270	.606	.028	-.021	.299
I may need a boost right now to help me maintain the foreign language I've already acquired	.310	-.275	.585	.215	.170	.104
I have been successful in working on my foreign language	.363	-.002	.558	.135	.071	-.236
I have a foreign language problem and I really think I should work on it	-.084	-.112	.186	.733	.059	.261
As far as I'm concerned, I don't have any foreign language problems	.085	.202	-.071	-.726	-.141	-.039
I think I might be ready for some foreign language self-improvement	.184	-.205	.228	.716	.027	-.193
Maybe this place will be able to help me learn a foreign language	.349	-.084	.208	.079	.613	.037
I hope that someone here will have some good advice for me on learning a foreign language	.446	-.099	.261	.283	.547	-.205
I wish I had more ideas on how to learn a foreign language	.036	-.173	.369	.349	.446	.281
I'm not following through with what I had already learned as well as I had hoped, and I'm at school to prevent a foreign language regression	.336	-.063	.257	.247	.079	.576

I have worries about learning a foreign language, but so does the next person. Why spend time thinking about them?	-.147	.407	.186	-.052	-.035	.471

Appendix F: Table 3

Correlations Matrix

		1#	2	3	4	5	6
1. Value of L2	Pearson correlation	1					
	Sig. (2-tailed)						
	N	209					
2. IWTC	Pearson correlation	.322**	1				
	Sig. (2-tailed)	.000					
	N	207	210				
3. Precontemplation	Pearson correlation	-.351**	-.226**	1			
	Sig. (2-tailed)	.000	.001				
	N	207	208	209			
4. Contemplation	Pearson correlation	.233**	.160*	-.389**	1		
	Sig. (2-tailed)	.001	.021	.000			
	N	207	208	209	209		
5. Preparation	Pearson correlation	.167*	.053	-.429**	.420**	1	
	Sig. (2-tailed)	.016	.448	000	.000		
	N	208	209	208	208	210	
6. Action	Pearson correlation	.188**	.323**	-.449**	.569**	.159*	1
	Sig. (2-tailed)	.007	.000	.000	.000	.022	
	N	206	208	208	208	207	208
7. Maintenance	Pearson correlation	.236**	.319**	-.336**	.566**	.395**	.490**
	Sig. (2-tailed)	.001	.000	.000	.000	.000	.000
	N	207	208	209	209	208	208

* Sig. $p < .05$
** Sig. $p < .001$

#1 = Value of L2
2 = IWTC
3 = Precontemplation
4 = Contemplation
5 = Preparation
6 = Action
7 = Maintenance

Appendix G: Table 4

Stages of Change Predictive of Value of L2

Model	Standardized Coefficients Beta	t	Sig.
Precontemplation	-.344	-4.159	.000
Contemplation	.101	1.113	.267
Preparation	-.092	-1.146	.253
Action	-.086	-.955	.341
Maintenance	.131	1.559	.121

Appendix H: Table 5

Stages of Change Predictive of IWTC Coefficients

Model	Standardized Coefficients Beta	t	Sig.
Precontemplation	-.133	-1.686	.093
Contemplation	-.125	-1.404	.162
Preparation	-.114	-1.450	.149
Action	.213	2.439	.016
Maintenance	.284	3.430	.001