ATTITUDES AND MOTIVATING FACTORS IN UNDERGRADUATE FOREIGN LANGUAGE STUDIES

MEGAN K. DOORIS
Fall 2010

A thesis
submitted in partial fulfillment
of the requirements
for baccalaureate degrees
in Communication Sciences and Disorders,
Comparative Literature, and International Studies
with honors in Applied Linguistics

Reviewed and approved* by the following:

Celeste S. Kinginger
Associate Professor of French and Applied Linguistics
Thesis Supervisor

Joan Kelly Hall
Professor of Applied Linguistics
Honors Adviser

* Signatures are on file in the Schreyer Honors College.
ABSTRACT

This thesis investigates attitudes and motivation of students enrolled in upper-level undergraduate foreign language classes. It explores whether language attitudes and motivation vary based on the language of study and/or whether the language is more commonly or less commonly studied.

The analysis is based on data collected in an online survey of 63 undergraduate students at The Pennsylvania State University, which used test items based on Gardner’s Attitude/Motivation Test Battery to measure interest in foreign languages, integrative orientation, instrumental orientation, and motivational intensity.

The results show remarkable similarity for all groups, with the exception of one question included for the measurement of integrativeness. This may arise from the small sample size, or may indicate the need for a different way of researching attitudes and motivation in foreign language study.
# TABLE OF CONTENTS

List of tables .......................................................................................................................... iii
Background ............................................................................................................................... 1
Method .................................................................................................................................... 6
Results ..................................................................................................................................... 9
Discussion ............................................................................................................................... 13
References .............................................................................................................................. 16
Appendices .............................................................................................................................. 18
  I: Survey ............................................................................................................................... 18
  II: Language courses ........................................................................................................... 27
  III: Experience with other languages .................................................................................. 28
  VI: Survey results ................................................................................................................. 30
  V: Additional reasons for language study ............................................................................. 34
LIST OF TABLES

Table 1: Importance of foreign language study for participation in activities of other cultural groups ..............................................................................................................................................................................11
BACKGROUND

Prior to the mid-twentieth century, researchers and educators considered aptitude the main predictor of students' success in L2 studies (Gardner, 1991). Canadian social psychologist Robert Gardner revolutionized the field with his suggestion that motivation is a major influential factor in L2 acquisition. By his definition, L2 motivation is “the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity” (1985, p. 10).

In his theory, Gardner defined motivation in terms of three components: effort expended to reach a goal; a desire to learn the language; and satisfaction with the task of learning the language. He postulated two types of orientations—sets of goals that affect motivation. The two types are integrative and instrumental (Gardner, 1985).

In his 1960 dissertation, Gardner defined the integrative orientation as “a strong drive to learn the language, favorable attitudes towards the language group, and an expressed desire to learn more about the language group and meet more of its members” (p. 10). In contrast, an instrumental orientation can be characterized by “an interest in acquiring sufficient knowledge of the language for its instrumental value in goal attainment” (p. 13). These orientations, along with the learner’s attitudes toward the L2 community, contribute to the learner’s motivation and, consequently, success. Gardner recognized that aptitude is a highly important factor in language acquisition, but stressed that it interacts with motivation.

Gardner hypothesized that instrumental orientation would be effective in achieving short-term goals but ineffective in sustaining motivation over longer periods of
time. Integrative orientation, however, would foster higher, more persistent levels of motivation. At first glance, these orientations appear to constitute a tidy dichotomy, but Gardner later pointed out that integrative and instrumental are not the only possible orientations, and that they are not mutually exclusive. Indeed, learners can have both orientations at the same time, or start with one and later shift to the other (1985).

He also defined integrative motivation, which can be broken down into attitudes toward the learning situation, motivation, and integrativeness—a reflection of the individual's interest in interacting with members of other groups (Dörnyei, 2005).

Gardner developed the Attitude/Motivation Test Battery (AMTB), a self-reporting questionnaire for the measurement of motivation. The original version was administered in Canada, and used 130 items to gauge for 13 constituent scales, including “attitudes toward French Canadians,” “integrative orientation,” “instrumental orientation,” and “French class anxiety.”

Dörnyei (2001) points out that Gardner’s AMTB is as close to being universally applicable as possible, but without modifications it is not appropriate for contexts other than the one for which it was originally developed. For this reason, he and other researchers have created their own questionnaires for use in specific situations, basing them largely on the AMTB. Gardner and his associates also recognize the limitations of the original AMTB, and have modified the test for use in diverse L2 learning contexts all over the world (Gardner, 2004).

Ely (1986) was one researcher who utilized a version of the AMTB. However, before using the AMTB format, he performed a preliminary study to validate the
integrative-instrumental construct. While other studies had begun with questionnaires based on preexisting motivational theories, Ely began his study by distributing an open-ended survey in which university students indicated their reasons for studying Spanish. He identified the most common reasons, listed them on a second questionnaire, and asked a second group of students to rate the importance of each.

After grouping the different reasons by statistical relation, he found that, “The findings indicate the existence of two type [sic] of motivation clusters that indeed bear a resemblance to integrative and instrumental orientations” (1986, p. 32). These results are particularly compelling because the clusters were developed from a descriptive survey rather than defined by an a priori framework. Ely also noted that the study showed the existence of another cluster for which Gardner and Lambert did not account: the need requirement motivation cluster. This includes such reasons as fulfilling a university language requirement.

Ely found the strongest correlation between integrative orientation (Cluster A) and strength of motivation. Instrumental orientation (Cluster B) was associated with motivation to a lesser degree, and the need requirement orientation (Cluster C) had a statistically insignificant negative correlation with strength of motivation. Ely emphasizes that conclusions drawn from these findings should not necessarily be extended to all situations. The participants in his study were learning Spanish as a foreign language, but in other contexts instrumental orientation may very well be the more powerful predictor of motivation.

An example of situational inefficacy of integrativeness comes from a study of
Mexican-American women in California (Oller, Baca, & Vigil, 1977). Those who rated Caucasians negatively learned English more successfully than those who rated Caucasians positively. In this vein, Oller and Perkins (1978) suggest that some learners are motivated by negative attitudes toward the L2 community, and have a *Machiavellian* orientation. This is similar in many respects to the instrumental orientation. Individuals with this orientation may want to use their language skills to manipulate and subvert the L2 group. This situation, however, differs significantly from the typical foreign language classroom setting as the second language that the women were learning was the dominant language in their community.

Self-report questionnaires such as the ones used in these studies are somewhat limited in their usefulness for motivation research. While they are effective for collecting large amounts of data about learner’s purported beliefs and attitudes, they do not measure actual expended effort, which Gardner (1985) saw as a necessary element of motivation.

*Foreign language study in the U.S.*

Compared to other developed nations, the United States neglects the teaching of foreign languages (Pufahl, Rhodes, & Christian, 2001). The most obvious problem is the sheer lack of curricular emphasis on foreign languages, as indicated by the number of students enrolled in foreign language classes. According to the U.S. Department of Education (2006), 24% of public elementary schools report teaching foreign languages. Forty-four percent of high school students are enrolled in foreign language classes, and in undergraduates, that number drops to below 8%.
Those students who do study foreign languages generally begin quite late. Despite an abundance of research demonstrating long-term advantages for beginning foreign language learning in childhood (Singleton & Ryan, 2005), in the United States, it is most likely to begin in adolescence (Pufahl et al., 2001).

While these circumstances present disadvantages for the United States in terms of national security (U.S. Department of Education, 2006) and global competitiveness (Brockmann, 2009), they open a window for research into language choice. Older students may be more aware than younger students of the implications of studying a particular language, and when presented with several foreign languages that they could study, this awareness might influence their decision.

Given the growing importance of Asia for the economy of the United States, it is hypothesized that students of Chinese and Japanese are drawn to these languages by the possible career benefits and thus should exhibit more instrumentality than students of more commonly studied languages such as French and Spanish.

The present study aims to investigate this hypothesis, while simultaneously identifying general trends in the attitudes and levels of motivation of undergraduate foreign language learners. To achieve this aim, a survey based on the AMTB was administered to undergraduate students enrolled in upper-level foreign language classes.
METHOD

Participants

The participants of the survey (Appendix I) were 63 undergraduate students (41 female, 22 male) enrolled in foreign language courses at The Pennsylvania State University, recruited through an e-mail sent to members of their language classes. The recruitment e-mail stated that participants needed to either be enrolled in a foreign language course at the 12th credit level or beyond, or be planning to take such a course the next semester. Only one respondent fell into the latter category. The credit level stipulation was devised to eliminate those students taking a language to fulfill a 12th credit level foreign language degree requirement. All participants were entered in a drawing for a gift card as compensation for their participation.

Participants were asked to name their language of study and course number. They were instructed to choose just one language if they were studying multiple languages at the 12th credit level or beyond. The respondents named Chinese, French, Hebrew, Italian, Japanese, Latin, Russian, and Spanish as their languages of study (see Appendix II).

In a free-response section, respondents were asked to list other languages with which they had had experience and to indicate how they were exposed to them. Fifty-three participants responded, reporting exposure to Afrikaans, Cantonese, Czech, Dutch, Finnish, French, German, Greek, Gujarati, Hindi, Italian, Japanese, Korean, Latin, Portuguese, Punjabi, Slovak, Spanish, and Vietnamese. Respondents gained exposure to these languages mostly at home or in academic settings, but also through work and study abroad experiences (see Appendix III).
**Instrument**

The questionnaire consisted of 13 Likert scale questions pertaining to foreign language attitudes, and 7 multiple-choice questions about behaviors related to language-learning. The questions were based on items from Gardner's AMTB (1985), for the assessment of the following:

- interest in foreign languages (questions 10-17)
- integrative orientation (18-20)
- instrumental orientation (21-23)
- motivational intensity (24-31)

Participants were also asked about their international travel and interaction with other cultures, since previous research (Dörnyei & Csizér, 2005) suggested an effect of intercultural contact and tourism on attitudes and motivation. A free-response section at the end of the survey asked respondents to list their reasons for foreign language study that the survey had not addressed. The entire survey took approximately 5-10 minutes to complete.

As the survey was administered online, implied consent was used. The only potentially identifying information collected were participant e-mail addresses, used solely for compensation purposes. Confidentiality was maintained by storing participant e-mail addresses and responses in separate files.
Data collection procedure

Responses were downloaded from the survey website in spreadsheet format. After identifying information was removed from this file, free-response answers were placed in a Microsoft Word document file. Responses to closed-ended questions were retained in the spreadsheet for statistical analysis.

Data analysis

Categorical data were analyzed in Minitab using chi-square analysis. Responses to all questions were analyzed based on language of study, whether the language of study was less commonly or more commonly studied, gender, frequency of international travel, and frequency of contact with other cultures. These analyses were run with the original array of Likert scale items, as well as with aggregation of Strongly Agree, Moderately Agree, and Slightly Agree into the category Agree, and Strongly Disagree, Moderately Disagree, and Slightly Disagree into the category Disagree. Descriptive statistics for the entire sample were also compiled.

In order to compare students of less commonly studied languages to students of more commonly studied languages, responses from students of Japanese and Chinese were combined to form the less commonly studied languages cohort, and responses from students of French and Spanish were combined to form the more commonly studied languages cohort. Hebrew, Italian, Latin, and Russian did not fit unequivocally into either category and for this reason they were excluded from the less commonly versus more commonly studied languages analysis.
RESULTS

Respondents were remarkably similar to each other in terms of interest in foreign languages, integrative orientation, instrumental orientation, and motivational intensity. A summary of quantitative data for all respondents is displayed in Appendix IV. Likert scale items have been aggregated for clarity. All statements indicative of interest in foreign languages (questions 10-17) had agreement rates of over 90%. Measures of integrative orientation (18-20) and instrumental orientation (21-23) were high as well, with average agreement of 88.89% and 88.36%, respectively.

In the integrative section, 90.48% of respondents agreed that their foreign language study was important because it would allow them to meet more, different people, while 88.89% agreed that it would help them to better understand the arts and literature of their language of study, and 87.3% thought that it would help them to participate more freely in the activities of other cultural groups. On the other hand, individual questions about instrumental orientation had more disparate rates of agreement. While 96.83% of respondents agreed that their foreign language study was important because it would make them more cultivated people, 87.3% thought that it would help them to be successful in their careers, and only 80.95% agreed that other people would respect them more because of their knowledge of a foreign language.

Overall, the sample showed moderate motivational intensity. Most respondents reported actively thinking about what they learned in class very frequently. When they have trouble understanding something they are learning in class, most of them report that they seek help at least some of the time, and 93.65% occasionally contribute or volunteer
as many answers as possible. Almost all respondents report putting some effort into or working carefully on their assignments, and when their graded assignments are returned to them, almost 90% report that they look over the assignments and/or correct their mistakes. Most respondents indicated that they would watch a television station in their language of study at least occasionally, and most report paying at least some attention when they hear a song in the language that they are studying. If the language they are studying were not offered at the university, approximately one quarter of respondents reported that they would not study it. The rest would try to study it on their own through sources such as newspapers and websites or take lessons elsewhere.

Only one statistically significant difference was found between language learner subgroups for the items analyzed in this survey. When the data were analyzed based on the less commonly studied language vs. more commonly studied language dichotomy, chi-square analysis showed a statistically significant difference in Likert scale responses to Question 20: “I think that my foreign language study is important because I will be able to participate more freely in the activities in of other cultural groups.” This item was intended to measure integrativeness. Of the students of less commonly studied languages, 34.48% strongly agreed, 44.83% moderately agreed, 3.45% slightly agreed, and 17.24% were neutral. Of the students of more commonly studied languages, 45.83% strongly agreed, 20.83% moderately agreed, 33.33% slightly agreed, and none identified as neutral (p-value 0.001).
I think that my foreign language study is important because I will be able to participate more freely in the activities of other cultural groups.

<table>
<thead>
<tr>
<th></th>
<th># Neutral</th>
<th>% Neutral</th>
<th># Slightly agree</th>
<th>% Slightly agree</th>
<th># Moderately agree</th>
<th>% Moderately agree</th>
<th># Strongly agree</th>
<th>% Strongly agree</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less commonly studied languages</td>
<td>5</td>
<td>17.24</td>
<td>1</td>
<td>3.45</td>
<td>13</td>
<td>44.83</td>
<td>10</td>
<td>34.48</td>
<td>29</td>
</tr>
<tr>
<td>More commonly studied languages</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>33.33</td>
<td>5</td>
<td>20.83</td>
<td>11</td>
<td>45.83</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>9.43</td>
<td>9</td>
<td>16.98</td>
<td>18</td>
<td>33.96</td>
<td>21</td>
<td>39.62</td>
<td>53</td>
</tr>
</tbody>
</table>

As is evident from Table 1, both groups had high levels of agreement with the statement, but the students of more commonly studied languages agreed more strongly than the students of less commonly studied languages that their foreign language study was important because it would allow them to participate more freely in the activities of other cultural groups.

Chi-square analysis yielded no significant differences in interest in foreign languages, integrative orientation, instrumental orientation, or motivational intensity on the basis of language of study, gender, frequency of travel, or frequency of contact with other cultures.

When participants were prompted to list reasons for their language study that the survey had not touched upon, 20 responded (see Appendix V). They indicated diverse reasons, from a desire to communicate better with relatives overseas and connect with their heritage, to career advancement. Some responses were particularly sophisticated; for example, one respondent cited the cognitive benefits of learning another language, and
another wanted to bypass poor translation and censorship of Japanese anime.
DISCUSSION

The data show only one statistically significant difference between language subgroups. Students of more commonly studied languages agreed more strongly with the statement, “I think that my foreign language study is important because it will allow me to participate more freely in the activities of other cultural groups” than did students of less commonly studied languages. This result could be due to greater integrativeness among students of more commonly studied languages, but none of the other items included for the measurement of integrativeness showed statistically significant differences. One could speculate about the reasons for this. Perhaps the students of more commonly studied languages can more readily access the activities of other cultural groups and are therefore more likely to consider participation in these activities a reason for language study. Maybe the sample size was simply not large enough to generate more significantly significant differences between groups, or maybe the groups' reasons for language study were in fact not very different.

One limitation of the study as a whole was the number of participants. As mentioned before, a larger sample size might produce more statistically significant differences between language subgroups. A further complication is the voluntary participation, which introduces the possibility of self-selection response bias. Voluntary participation also precludes the generalizability of the study results.

This study also did not monitor attitudes and motivation of students at different points in their study. It is possible that larger discrepancies would have been observed at the inception of the respondents' language studies, and these differences faded over time.
Another consideration is that students who choose to continue their foreign language studies past the 12th credit level might be very similar in terms of orientations and motivation and that they may differ in significant ways from those students who stop once they have fulfilled a foreign language requirement.

A problem may also lie in the instrument itself. Perhaps the most important questions were not asked, or perhaps motivation is too complex to be evaluated in a questionnaire. The qualitative data from this study lend themselves to a more thorough understanding of why undergraduates study foreign languages; participants were able to freely express their personal reasons, rather than being restricted to a predetermined set of options that might not include the reasons most important to a particular participant. For instance, this survey did not touch upon the cognitive benefits of language learning or a desire to circumvent censorship, but respondents listed both of these as motivating factors.

The inclusion of more free-response sections might have revealed even more details about why people choose to study foreign languages. Indeed, this may be the way to go about investigating L2 motivation. The complexity of motivating factors behind L2 learning demands a model more comprehensive than the integrative-instrumental motivational construct, and even the most straightforward of Likert scale questions may be interpreted differently by different individuals. If it were possible to devise a questionnaire that exhaustively included all possible reasons for language study, it would be so unreasonably long that many potential participants would likely be dissuaded from completing it.
Further research could help to clarify some of these issues. One suggestion is a comprehensive, longitudinal study of undergraduate foreign language learners from first semester of language study to the 12th credit level, including those students who do not continue their studies past this level. Such a study could combine a number of qualitative and quantitative data and make use of a larger sample size. This might better reveal the factors that contribute to language choice, and would show temporal changes in attitude and motivation.
References:


### Survey

1. Are you currently enrolled in a language course beyond the 12th credit level, or do you plan to take a language course beyond the 12th credit level in the next semester?
   - [ ] Yes
   - [ ] No

2. What language are you studying? If you are studying more than one language beyond the 12th credit level, please choose just one.

<table>
<thead>
<tr>
<th>Language</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

3. Please indicate the course number.
4. The Pennsylvania State University

Title of Project: Motivating Factors in University Foreign Language Classes

Principal Investigator: Megan Dooris, Undergraduate Student
Penn State University
University Park, PA 16802
(814) 441-5371; mkd144@psu.edu

Advisor: Dr. Celeste Kinginger
305 Sparks Building
University Park, PA 16802
(814) 863-8074; cxk37@psu.edu

1. Purpose of the Study: The purpose of this research study is to explore the role of motivating factors in university-level foreign language classes.

2. Procedures to be followed: You will be asked to answer 28 questions on a survey.

3. Benefits: You might learn more about yourself by participating in this study.

This research might provide a better understanding of motivating factors involved in foreign language learning. This information could help plan foreign language programs.

4. Duration: It will take approximately 5-10 minutes to complete the survey.

5. Statement of Confidentiality: Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties. You are not required to submit your e-mail address, but if you choose to do so, it will only be used to notify you in the event that you are chosen by random drawing as the recipient of a $25 Amazon.com gift card. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared.

6. Right to Ask Questions: Please contact Megan Dooris at (814) 441-5371 with questions, complaints or concerns about this research. You can also call this number if you feel this study has harmed you.
7. Payment for participation: Participants who submit their e-mail address will be entered in a drawing for a $25 Amazon gift card.

8. Voluntary Participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer in order to complete the survey. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to take part in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to take part in the research.

Please print a copy of this consent form for your records or future use.

By clicking "I agree," you indicate that you have read and agreed to the terms stated.

☐ I agree
☐ I disagree
5. Respondents who provide their e-mail addresses will be entered in a drawing to win a $25 Amazon.com gift certificate. If you would like to be entered in the drawing, please enter your e-mail address.

Email Address:

6. What is your gender?

- Female
- Male
- Not specified

7. Please list other languages with which you have had experience, indicating how you were exposed to them (at home, in school, in another country, etc.).

8. On average, how often do you travel internationally?

- more than once a year
- once a year
- once every two to three years
- less than once every two to three years

9. How often do you interact with people from cultures other than your own?

- never
- rarely
- sometimes
- frequently
- very frequently
10. If I were visiting a foreign country I would like to be able to speak the language of the people.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

11. It is important for people in the United States to learn foreign languages.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

12. I wish I could speak the language that I am studying perfectly.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

13. I want to read the literature of a foreign language in the original language, rather than in translation.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

14. I often wish I could read newspapers and magazines in another language,

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

15. If I planned to stay in another country where I could get by in English, I would still make an effort to learn the language of that country.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

16. I would like to learn a lot of foreign languages.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree

17. I enjoy meeting and listening to people who speak other languages.

   □ Strongly Disagree □ Moderately Disagree □ Slightly Disagree □ Neutral □ Slightly Agree □ Moderately Agree □ Strongly Agree
18. It will allow me to meet more, different people.

<table>
<thead>
<tr>
<th>Strongly</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>Disagree</td>
<td></td>
<td>Agree</td>
<td></td>
<td>Agree</td>
</tr>
</tbody>
</table>

19. It will help me to better understand the arts and literature of that language.

<table>
<thead>
<tr>
<th>Strongly</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>Disagree</td>
<td></td>
<td>Agree</td>
<td></td>
<td>Agree</td>
</tr>
</tbody>
</table>

20. I will be able to participate more freely in the activities of other cultural groups.

<table>
<thead>
<tr>
<th>Strongly</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>Disagree</td>
<td></td>
<td>Agree</td>
<td></td>
<td>Agree</td>
</tr>
</tbody>
</table>

21. It will help me to be successful in my career.

<table>
<thead>
<tr>
<th>Strongly</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>Disagree</td>
<td></td>
<td>Agree</td>
<td></td>
<td>Agree</td>
</tr>
</tbody>
</table>

22. It will make me a more cultivated person.

<table>
<thead>
<tr>
<th>Strongly</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>Disagree</td>
<td></td>
<td>Agree</td>
<td></td>
<td>Agree</td>
</tr>
</tbody>
</table>

23. Other people will respect me more if I have knowledge of a foreign language.

<table>
<thead>
<tr>
<th>Strongly</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>Disagree</td>
<td></td>
<td>Agree</td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Question</td>
<td>Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I actively think about what I have learned in my foreign language class...</td>
<td>very frequently, hardly ever, once in a while</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. When I have a problem understanding something we are learning in my foreign language class, I...</td>
<td>usually seek help, sometimes seek help, rarely or never seek help</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. When I'm doing homework for my foreign language class, I...</td>
<td>work carefully, put some effort into it, put little to no effort into it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. When I get assignments back in my foreign language class, I...</td>
<td>always correct my mistakes, put them away and forget about them, look over them, but don't bother correcting mistakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. If there were a local television station in the language I am studying, I would...</td>
<td>never watch it, turn it on occasionally, try to watch it often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. When I am in my foreign language class, I...</td>
<td>volunteer answers as often as possible, occasionally contribute, rarely or never say anything</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. When I hear a song in the language I am studying, I...</td>
<td>listen to the music, paying attention to the easy words, listen carefully, trying to understand all of the words, don't pay attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
31. If the foreign language I am studying were not offered at the university, I would...

- try to pick it up from sources such as newspapers and websites
- not study it
- try to take lessons somewhere else
32. If you have any reasons for foreign language study that were not covered in this survey, please note them here.
<table>
<thead>
<tr>
<th>Language</th>
<th>Course Number, Title, Number of Students*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese:</td>
<td>401 Advanced Conversation (13)</td>
</tr>
<tr>
<td></td>
<td>402 Advanced Reading (2)</td>
</tr>
<tr>
<td>French:</td>
<td>201 Oral Communication and Reading Comprehension (8)</td>
</tr>
<tr>
<td></td>
<td>202 Grammar and Composition (4)</td>
</tr>
<tr>
<td></td>
<td>331 French Culture and Civilization I (1)</td>
</tr>
<tr>
<td></td>
<td>332 French Culture and Civilization II - (1)</td>
</tr>
<tr>
<td></td>
<td>402Y Advanced Grammar and Writing (1)</td>
</tr>
<tr>
<td></td>
<td>497A War, Violence, and Conflict (1)</td>
</tr>
<tr>
<td>Hebrew:</td>
<td>401 Advanced Hebrew – Conversation Emphasis (1)</td>
</tr>
<tr>
<td>Italian:</td>
<td>301 Pathways to Fluency (5)</td>
</tr>
<tr>
<td></td>
<td>320 Introduction to Italian Culture: Food, Fashion, Family (1)</td>
</tr>
<tr>
<td>Japanese:</td>
<td>401 Advanced Conversation (9)</td>
</tr>
<tr>
<td></td>
<td>402 Advanced Reading (1)</td>
</tr>
<tr>
<td></td>
<td>403Y Practical Written Communication: Japanese for Professional and Academic Purposes I (6)</td>
</tr>
<tr>
<td></td>
<td>453 Japanese Film (1)</td>
</tr>
<tr>
<td></td>
<td>496 Independent Studies (1)</td>
</tr>
<tr>
<td>Latin:</td>
<td>403 Augustan Age Literature (1)</td>
</tr>
<tr>
<td>Russian:</td>
<td>305 Advanced Russian Conversation (3)</td>
</tr>
<tr>
<td>Spanish:</td>
<td>3 Intermediate Spanish (1)</td>
</tr>
<tr>
<td></td>
<td>100 Intermediate Grammar and Composition (7)</td>
</tr>
<tr>
<td></td>
<td>100A Intermediate Grammar and Composition for Bilinguals (5)</td>
</tr>
<tr>
<td></td>
<td>301 Advanced Writing and Stylistics in Spanish for Spanish Speakers (1)</td>
</tr>
</tbody>
</table>

*Some respondents listed more than one course number for the same language. In these cases, they were counted for each course.
Please list other languages with which you have had experience, indicating how you were exposed to them (at home, in school, in another country, etc.).

1. German, in school
2. Spanish (work) French (Canada, work)
3. Spanish- I took it in middle school from 6th - 8th grade
4. Greek at home, Chinese at PSU, Korean @ PSU, French during High School
5. Japanese: at home (in Japan), school English: at home, school
6. Spanish, English and French
7. Italian-Travel French-School, Other Country
8. Vietnamese, Cantonese (both at home) Japanese (a little bit at school)
10. Spanish - at home (father is Spanish professor, spoke to us in Spanish), in school (AP Spanish in High school), and study abroad for a year in Argentina
11. Dutch - lived in the Netherlands for 6 months Afrikaans - have visited South Africa several times (my Dad is from SA)
12. Took Spanish through highschool
13. Korean
14. Chinese
15. English - native language at home and at school.
16. Japanese in school
18. Chinese at home. Spanish since 7th grade at school.
19. Vietnamese @ home
20. Took Japanese in High School
21. Spanish- middle and high school
22. English, Punjabi, Hindi - at home or with friends Japanese - leisure time
23. English (home), Spanish (elementary and middle school), French (high school)
24. Spanish, junior high
25. French in school
26. Spanish. 2 years in high school.
27. French in High School.
28. French, in school
29. Korean, English, Japanese, German, Italian
30. French - Lived in France for 6 years German- in school Spanish- in school Italian- in school Latin- in school
31. English at home
32. Latin, high school French, high school Finnish, in Finland German, in Germany Slovak, in Czech Republic
33. I've also grown up on Cantonese at home, but I've never learned it formally. And I was born in the States.
34. English - home
35. Chinese, at home
36. Portuguese -- boyfriend's family speaks, I took a couple classes
37. Spanish - took in high school
38. Spanish - middle/high school, 4 years French - middle school, 1/2 year
39. Spanish I took it until I was in tenth grade.
40. Cambodia
41. Spanish (Native Spanish speaker) French (Elementary to Middle School) Italian (High School)
42. took Spanish in high school
43. French - High School
44. English, at home German, in school
45. I am also majoring in French. I have taken many French classes at Penn State, and I have studied abroad there once. I will be studying there again this coming spring.
46. German: exchange abroad
47. Chinese. I speak Chinese at home.
48. Chinese (home and school)
49. Chinese (at home) English (in school)
50. Chinese and French (studied at school)
51. English - at home Spanish - learned through middle school Chinese - exposed to while living in China
52. Japanese, class in high school in High School
53. None
## Survey Results

### Gender and language of study

<table>
<thead>
<tr>
<th>Language</th>
<th># Female</th>
<th>% Female</th>
<th># Male</th>
<th>% Male</th>
<th># Total</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese</td>
<td>5</td>
<td>35.71</td>
<td>9</td>
<td>64.29</td>
<td>14</td>
<td>22.22</td>
</tr>
<tr>
<td>French</td>
<td>11</td>
<td>91.67</td>
<td>1</td>
<td>8.33</td>
<td>12</td>
<td>19.05</td>
</tr>
<tr>
<td>Hebrew</td>
<td>1</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.59</td>
</tr>
<tr>
<td>Italian</td>
<td>4</td>
<td>80</td>
<td>1</td>
<td>20</td>
<td>5</td>
<td>7.94</td>
</tr>
<tr>
<td>Japanese</td>
<td>7</td>
<td>46.67</td>
<td>8</td>
<td>53.33</td>
<td>15</td>
<td>23.81</td>
</tr>
<tr>
<td>Other (Latin)</td>
<td>1</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.59</td>
</tr>
<tr>
<td>Russian</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>100</td>
<td>3</td>
<td>4.76</td>
</tr>
<tr>
<td>Spanish</td>
<td>12</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>19.05</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>41</td>
<td>65.08</td>
<td>22</td>
<td>34.92</td>
<td><strong>63</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### On average, how often do you travel internationally?

<table>
<thead>
<tr>
<th># Less than once every two to three years</th>
<th>% Less than once every two to three years</th>
<th># Once every two to three years</th>
<th>% Once every two to three years</th>
<th># Once a year</th>
<th>% Once a year</th>
<th># More than once a year</th>
<th>% More than once a year</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>38.1</td>
<td>20</td>
<td>31.75</td>
<td>9</td>
<td>14.29</td>
<td>10</td>
<td>15.87</td>
<td>63</td>
</tr>
</tbody>
</table>

### How often do you interact with people from cultures other than your own?

<table>
<thead>
<tr>
<th># Rarely</th>
<th>% Rarely</th>
<th># Sometimes</th>
<th>% Sometimes</th>
<th># Frequently</th>
<th>% Frequently</th>
<th># Very frequently</th>
<th>% Very Frequently</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6.35</td>
<td>15</td>
<td>23.81</td>
<td>27</td>
<td>42.86</td>
<td>17</td>
<td>26.98</td>
<td>63</td>
</tr>
<tr>
<td>Response</td>
<td># Disagree</td>
<td>% Disagree</td>
<td># Neutral</td>
<td>% Neutral</td>
<td># Agree</td>
<td>% Agree</td>
<td># Total</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>If I were visiting a foreign country I would like to be able to speak</td>
<td>3</td>
<td>4.76</td>
<td>1</td>
<td>1.59</td>
<td>59</td>
<td>93.65</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>the language of the people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is important for people in the United States to learn foreign</td>
<td>2</td>
<td>3.17</td>
<td>2</td>
<td>3.17</td>
<td>59</td>
<td>93.65</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>languages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wish I could speak the language that I am studying perfectly.</td>
<td>1</td>
<td>1.59</td>
<td>1</td>
<td>1.59</td>
<td>61</td>
<td>96.83</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>I want to read the literature of a foreign language in the original</td>
<td>3</td>
<td>4.76</td>
<td>3</td>
<td>4.76</td>
<td>57</td>
<td>90.48</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>language, rather than in translation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often wish I could read newspapers and magazines in another language.</td>
<td>1</td>
<td>1.59</td>
<td>5</td>
<td>7.94</td>
<td>57</td>
<td>90.48</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>If I planned to stay in another country where I could get by in English,</td>
<td>1</td>
<td>1.59</td>
<td>2</td>
<td>3.17</td>
<td>60</td>
<td>95.24</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>I would like to learn a lot of foreign languages.</td>
<td>1</td>
<td>1.59</td>
<td>1</td>
<td>1.59</td>
<td>61</td>
<td>96.83</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>I enjoy meeting and listening to people who speak other languages.</td>
<td>2</td>
<td>3.17</td>
<td>2</td>
<td>3.17</td>
<td>59</td>
<td>93.65</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>I think that my foreign language study is</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>important because . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It will allow me to meet more, different people.</td>
<td>3</td>
<td>4.76</td>
<td>3</td>
<td>4.76</td>
<td>57</td>
<td>90.48</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>It will help me to better understand the arts and literature of that</td>
<td>2</td>
<td>3.17</td>
<td>5</td>
<td>7.94</td>
<td>56</td>
<td>88.89</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will be able to participate more freely in the activities of other</td>
<td>1</td>
<td>1.59</td>
<td>7</td>
<td>11.11</td>
<td>55</td>
<td>87.3</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>cultural groups.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It will help me to be successful in my career.</td>
<td>3</td>
<td>4.76</td>
<td>5</td>
<td>7.94</td>
<td>55</td>
<td>87.3</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>It will make me a more cultivated person.</td>
<td>1</td>
<td>1.59</td>
<td>1</td>
<td>1.59</td>
<td>61</td>
<td>96.83</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Other people will respect me more if I have knowledge of a foreign</td>
<td>4</td>
<td>6.35</td>
<td>8</td>
<td>12.7</td>
<td>51</td>
<td>80.95</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I actively think about what I have learned in my foreign language class . . .

<table>
<thead>
<tr>
<th></th>
<th># Hardly ever</th>
<th>% Hardly ever</th>
<th># Once in a while</th>
<th>% Once in a while</th>
<th># Very frequently</th>
<th>% Very frequently</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>20.63</td>
<td>50</td>
<td>79.37</td>
<td>63</td>
</tr>
</tbody>
</table>

When I have a problem understanding something we are learning in my foreign language class, I . . .

<table>
<thead>
<tr>
<th></th>
<th># Rarely or never seek help</th>
<th>% Rarely or never seek help</th>
<th># Sometimes seek help</th>
<th>% Sometimes seek help</th>
<th># Usually seek help</th>
<th>% Usually seek help</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>4.84</td>
<td>29</td>
<td>46.77</td>
<td>30</td>
<td>48.39</td>
<td>62*</td>
</tr>
</tbody>
</table>

When I'm doing homework for my foreign language class, I . . .

<table>
<thead>
<tr>
<th></th>
<th># Put little to no effort into it</th>
<th>% Put little to no effort into it</th>
<th># Put some effort into it</th>
<th>% Put some effort into it</th>
<th># Work carefully</th>
<th>% Work carefully</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1.59</td>
<td>33</td>
<td>52.38</td>
<td>29</td>
<td>46.03</td>
<td>63</td>
</tr>
</tbody>
</table>

When I get assignments back in my foreign language class, I . . .

<table>
<thead>
<tr>
<th></th>
<th># Put them away and forget about them</th>
<th>% Put them away and forget about them</th>
<th># Look over them, but don't bother correcting mistakes</th>
<th>% Look over them, but don't bother correcting mistakes</th>
<th># Always correct my mistakes</th>
<th>% Always correct my mistakes</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>11.11</td>
<td>37</td>
<td>58.73</td>
<td>19</td>
<td>30.16</td>
<td>63</td>
</tr>
</tbody>
</table>

If there were a local television station in the language I am studying, I would . . .

<table>
<thead>
<tr>
<th></th>
<th># Never watch it</th>
<th>% Never watch it</th>
<th># Turn it on occasionally</th>
<th>% Turn it on occasionally</th>
<th># Try to watch it often</th>
<th>% Try to watch it often</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>4.76</td>
<td>34</td>
<td>53.97</td>
<td>26</td>
<td>41.27</td>
<td>63</td>
</tr>
</tbody>
</table>

When I am in my foreign language class, I . . .

<table>
<thead>
<tr>
<th></th>
<th># Rarely or never say anything</th>
<th>% Rarely or never say anything</th>
<th># Occasionally contribute</th>
<th>% Occasionally contribute</th>
<th># Volunteer as many answers as possible</th>
<th>% Volunteer as many answers as possible</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>6.35</td>
<td>36</td>
<td>57.14</td>
<td>23</td>
<td>36.51</td>
<td>63</td>
</tr>
</tbody>
</table>

When I hear a song in the language I am studying, I . . .

<table>
<thead>
<tr>
<th></th>
<th># Don't pay attention</th>
<th>% Don't pay attention</th>
<th># Listen to the music, paying attention to the easy words</th>
<th>% Listen to the music, paying attention to the easy words</th>
<th># Listen carefully, trying to understand all of the words</th>
<th>% Listen carefully, trying to understand all of the words</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1.59</td>
<td>23</td>
<td>36.51</td>
<td>39</td>
<td>61.9</td>
<td>63</td>
</tr>
</tbody>
</table>
If the foreign language I am studying were not offered at the university, I would . . .

<table>
<thead>
<tr>
<th># Not study it</th>
<th>% Not study it</th>
<th># Try to take lessons somewhere else</th>
<th>% Try to take lessons somewhere else</th>
<th># Try to pick it up from sources such as newspapers and websites</th>
<th>% Try to pick it up from sources such as newspapers and websites</th>
<th># Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>26.98</td>
<td>32</td>
<td>50.79</td>
<td>14</td>
<td>22.22</td>
<td>63</td>
</tr>
</tbody>
</table>

* Not all respondents answered this question
If you have any reasons for foreign language study that were not covered in this survey, please note them here.

1. Friends, and family members who speak the language better than me, also movies, and pop culture things from that language/country are much more enjoyed through the native language
2. Meet friend from other country, learn from word to word, and try to get used to it by talking, watching tv, and reading.
3. I think there is a lot of overlapping involved in the study of foreign languages, so I am hoping that once I am fluent in Spanish I will be more likely to learn Italian, etc.
4. I just love learning languages; it's really fun for me and I pick it up pretty easily. I am motivated to work hard at it because I enjoy it.
5. Trying to perfect my first language which got kind of lost once I entered school
6. It's part of my cultural background and I want to feel more connected to my roots. I want to be able to speak effectively and fluently with people in my family and others in my culture.
7. I have always really wanted to be fluent in Spanish. I think it would be very useful in my future careers and travels.
8. I believe that studying a foreign language is an essential part of being a citizen of a nation that is made up of so many diverse nationalities as ours is. I also believe that learning to speak a foreign language fluently can allow an individual to become more open minded and culturally accepting - something that everyone needs to do in this country.
9. To use terms such as legal or medical terms, and have a substantial base from which one can interpret those meanings. Also, to expand vocabulary in everyday usage as well as writing, and reading.
10. I'm ethnic Chinese, but my parents taught me Vietnamese instead b/c they were born & raised in Viet Nam.
11. Religious
12. I love the French language. That's actually the main reason I study it.
13. Family. My mother is Japanese so... because of family background, wanting to learn more about the culture of my heritage, and the desire to be able to communicate with my over-seas family, I study Japanese. However, other students in my classes study the language because of an interest in japanese pop culture (manga, anime)
14. Dream since childhood.
15. For the career
16. I tried Japanese in high school but from my lack of interest in it I decided to go with a European language.
17. Based on personal interest
18. Cultural- anime censorship- discovered through heavily edited anime; wanted to know what I was missing translation- want to bring more media (novels/manga, movies/anime) to US; different but really interesting, and not available due to language barrier
19. improves memory, reaction time, thought processes and ability to learn
20. My interest
Megan K. Dooris  
447 Hillcrest Avenue, State College, PA 16803  
megandooris@gmail.com

EDUCATION

Bachelor of Science, Communication Sciences and Disorders 12/2010
Bachelor of Arts, Comparative Literature and International Studies  
Minor, Linguistics
The Pennsylvania State University, University Park, PA  
▪ Honors in Applied Linguistics  
▪ Thesis: “Attitudes and Motivating Factors in Undergraduate Foreign Language Studies”


HONORS

▪ Phi Beta Kappa  
▪ Chi Gamma Lambda (Comparative Literature)  
▪ Schreyer Scholar  
▪ Dean's list all semesters

RESEARCH EXPERIENCE

Research Assistant for Dr. Krista Wilkinson 5/2010 – 12/2010  
The Pennsylvania State University  
▪ Coded eye tracking data for a visual scene display study

Research Assistant for Dr. Janet van Hell 9/2008 – 5/2009  
The Pennsylvania State University  
▪ Designed stimuli, recruited and tested participants for a behavioral study of lexical and contextual factors in code-switching

LANGUAGES

English (native speaker)  
Portuguese (fluent)  
Spanish (intermediate)  
American Sign Language (intermediate)