

# Development of a Scale for Measuring Intercultural Attitudes

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## Statement of the Problem

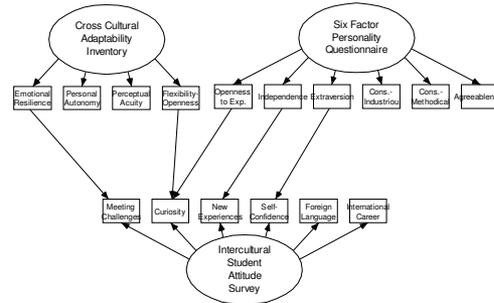
Our goal in developing the ISAS was to measure the changes that take place in the attitudes of undergraduate college students who study internationally. Based on our experience, the attitudes that seem to be most affected by international experience include concepts such as open-mindedness, adventurousness, self-confidence, resilience, and attitudes toward future international careers and foreign language study. Of these, only open-mindedness and resilience are measured on a published instrument that we had been using, the Cross-Cultural Adaptability Inventory (CCAI, Kelley & Meyers, 1992). In addition to the CCAI, we had been using the Six Factor Personality Questionnaire (SFPQ, Jackson, Paunonen, & Tremblay, 2000) to assess personality characteristics that might affect response to study abroad. The SFPQ measures three personality factors that we are interested in, Openness to Experience, Extraversion, and Independence, which is the SFPQ interpretation of the Big Five factor of Emotional Stability or Neuroticism. We also wanted to include attitudes toward international careers and foreign language study in our scale.

Items measuring the above concepts were written and field tested during the summer of 2003, and a 50-item scale was developed for use during fall of 2003 and spring and summer of 2004. A total of 568 undergraduates contributed to the dataset for the first version of the scale. Further item and factor analyses resulted in the current 35-item ISAS. The ISAS measures six factors: New Experiences, International Careers, Curiosity, Meeting Challenges, Self-Confidence, and Foreign Language. Data on the current version were collected from 422 undergraduates during the summer and fall terms of 2007 and spring and summer terms of 2008. During spring 2008 and spring and summer of 2009, data were also collected with the CCAI and SFPQ in order to evaluate the concurrent validity of the ISAS.

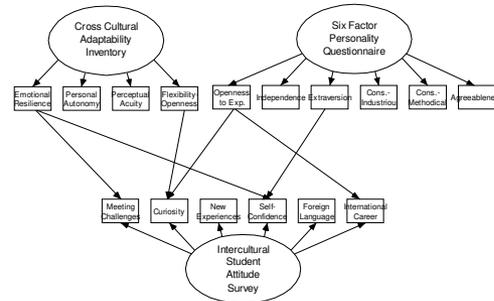
## Subjects

The 2008-2009 dataset consisted of 400 students, mostly juniors and seniors, studying in Italy or surveyed at their home universities; 56% were female. Thirty-five percent responded that they were considering a career that involved international travel, and 71% responded that they had previously traveled outside of their native country for one week or more.

## Hypothesized Relationships



## Empirical Relationships



## Procedures

Due to the intercorrelation of factors, particularly on the CCAI, partial correlations were computed for each factor of the ISAS with each factor of the CCAI and SFPQ in turn so that the influence of the other factors in each scale would be eliminated. Twenty-four partial correlations were evaluated between the CCAI and the ISAS and 30 partial correlations were evaluated for the SFPQ and ISAS. Type I error over multiple comparisons was controlled with a modified Bonferroni method. Significant correlations where  $r > .250$  are shown above.

## Instruments

### Cross-Cultural Personality Inventory

1. Emotional Resilience – the ability to manage stress and uncertainty
2. Perceptual Acuity – the ability to accurately perceive and understand others
3. Personal Autonomy – the ability to maintain your own values
4. Flexibility-Openness – the ability to be flexible and keep an open mind when encountering novel situations

### Six-Factor Personality Questionnaire

1. Openness to Experience – open-mindedness and interest in diversity; related to intelligence
2. Independence – emotional stability (as interpreted by the SFPQ)
3. Extraversion – being outgoing and friendly with other people
4. Industriousness – the aspect of Conscientiousness that refers to work ethic
5. Methodicalness – the aspect of Conscientiousness that refers to attention to detail
6. Agreeableness – being easy to get along with, having a positive and helpful attitude towards others

### Intercultural Student Attitude Questionnaire

1. Meeting Challenges – the ability to handle stressful situations
2. Curiosity – interest in other people and cultures
3. New Experiences – a desire to have new experiences, risk-taking
4. Self-Confidence – faith in your ability to handle new situations and laugh at your own mistakes
5. Foreign Language – interest in learning a foreign language
6. International Career – interest in traveling internationally for your career

## Results and Discussion

Results partially confirmed our hypotheses. Even with control for Type I error over multiple comparisons, the large sample provided sufficient power to identify thirteen significant partial correlations. Six correlations with  $r$  values  $> .250$  are shown at left.

T-tests were conducted for each of the 16 factors on all three instruments with previous international travel as the independent variable. These significant differences were found in favor of students with previous travel experience: ISAS: New Experiences, Foreign Language, International Career, total score SFPQ: Extraversion, Openness to Experience

Our previous research has shown changes in factors on the CCAI and the SFPQ with international educational experience. If the ISAS is sufficiently sensitive to measure change over the course of an international semester or summer session, it may be a useful tool for demonstrating the value of investment in student participation in study abroad programs.