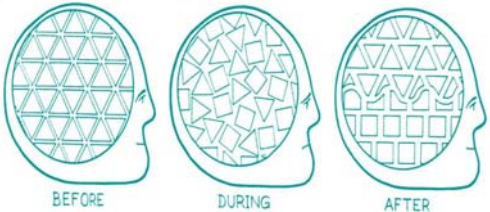
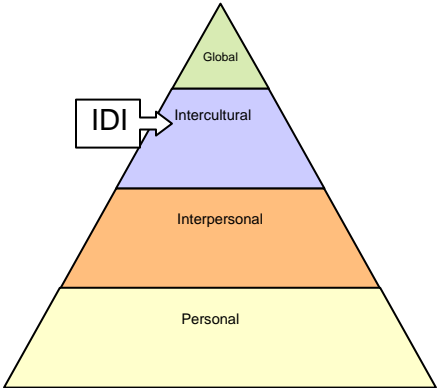


Using the IDI for Impact Assessment: Findings, Strengths, Challenges, and Practical Considerations

By Bettina Hansel, PhD

Presentation at IAIR conference: August 2009. Honolulu.

AFS sees itself as providing “a new learning situation where students coming from different cultural environments are helped to see their differences as resources to acquire a greater understanding of themselves rather than as deviations from the norm. That is, a situation where every culture is explained in the context of the others through a process that stimulates doubts about self, curiosity about others and an understanding of reciprocal relations and... involves students both intellectually and emotionally.”¹

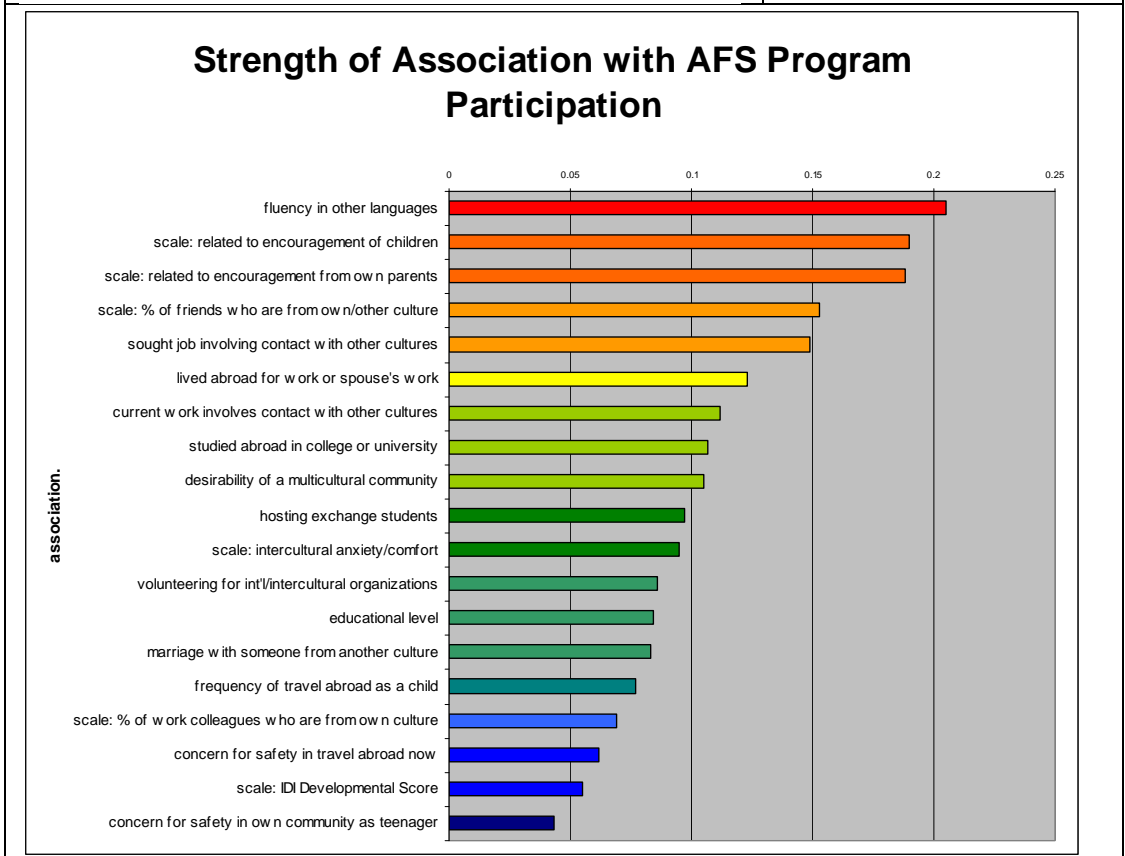
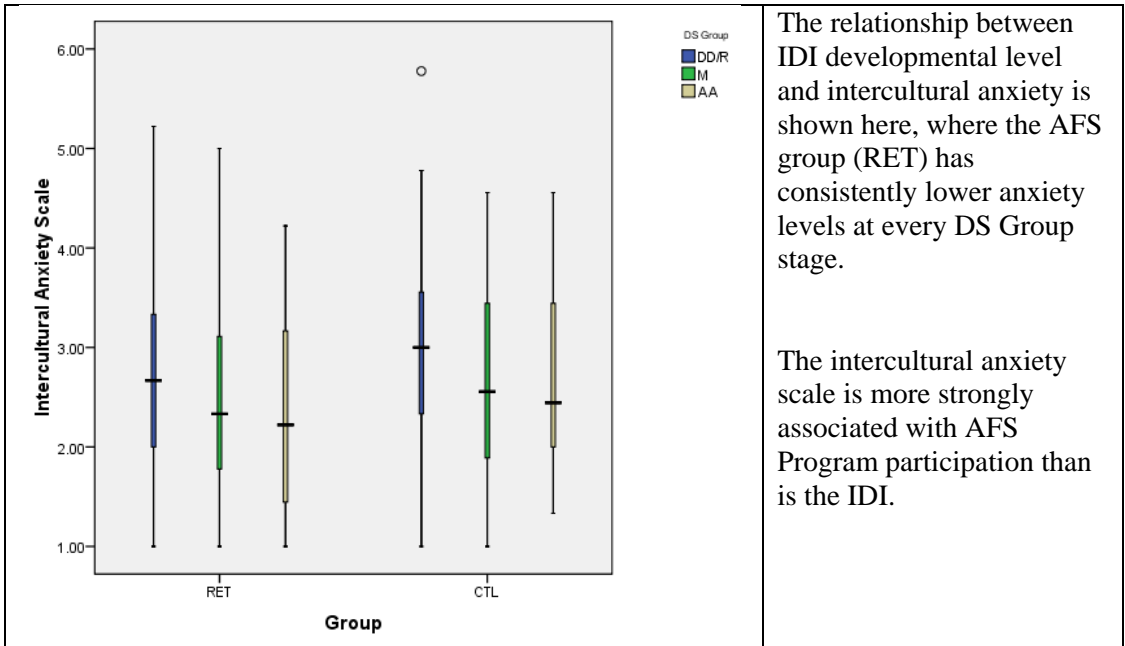
 <p>BEFORE DURING AFTER</p>	<p>The Long Term Impact Study involved a 15-country web-based survey in 2007 of some 11,000 AFS participants from 1980-86. Responses were received from nearly 2,000 alumni and a control group of over 500 nominated peers.</p>
<p>“AFS changed my life!”</p>	
	<ol style="list-style-type: none"> 1. Did AFS alumni after 20 or more years continue to show greater levels of intercultural development than their peers as measured by the IDI? 2. How might AFS alumni differ from their peers in terms of experiences, behavior, affect, and attitudes? 3. What factors beyond the AFS exchange are found to relate to higher developmental levels in the IDI? 4. What measures best assess the outcome of the AFS high school exchange experience 20-25 years later?

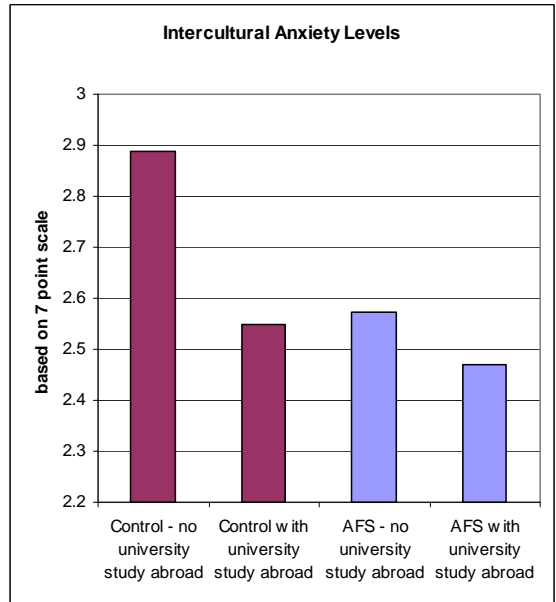
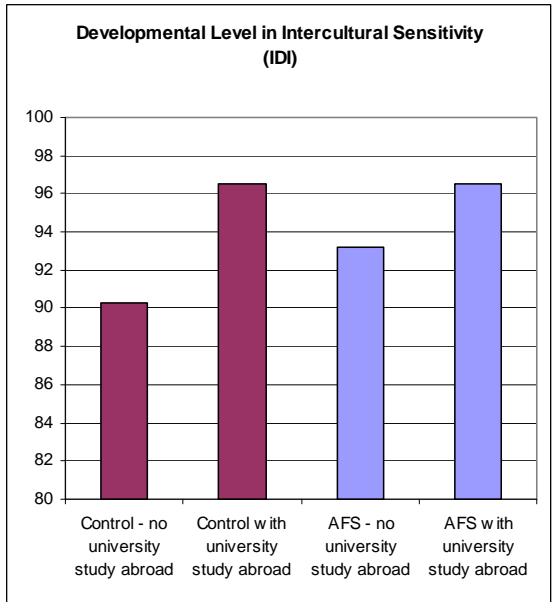
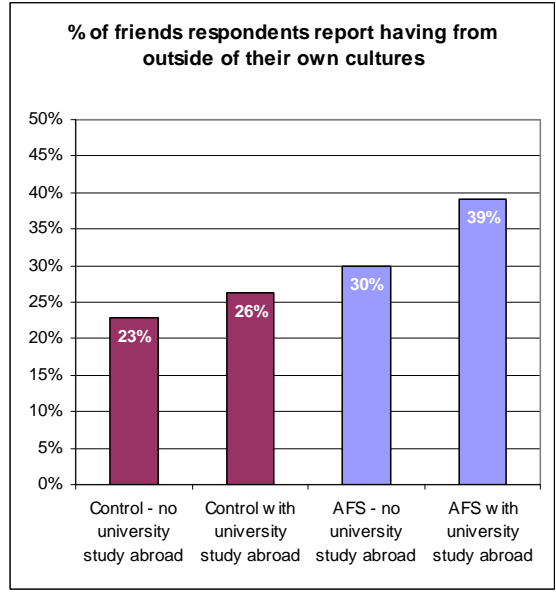
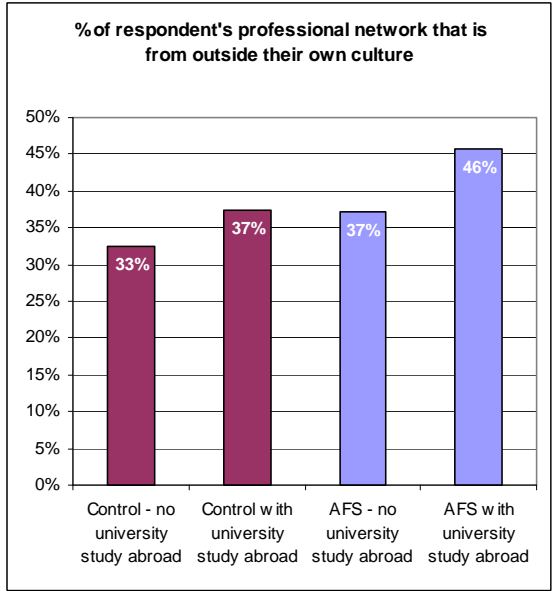
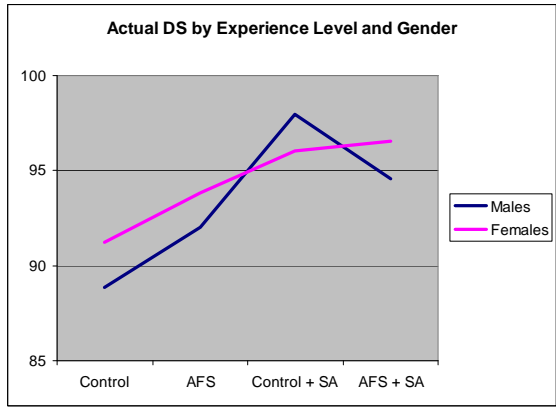
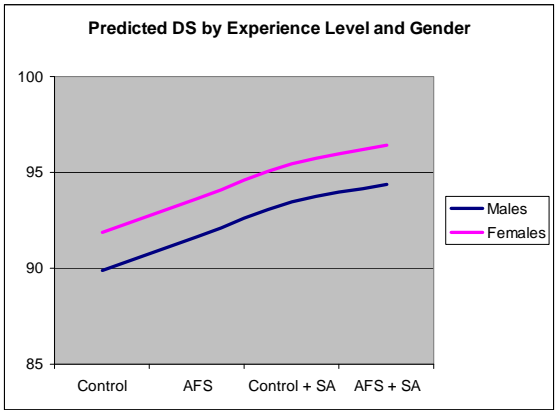
1. Yes, but... The AFS returnee group is more “resolved” in the Denial/Defense area than the control group, and scores higher on the AA scale, but all other scales appear nearly identical.

2. Many significant differences were found, from even before the high school exchange experience. The AFS group has a more international biography, is less anxious around cultural differences, speaks more language fluently, had broader social and professional networks and a stronger preference for living in a diverse neighborhood.

¹ From “The Traveller’s Compass,” speech by Dr. Roberto Ruffino, Secretary General of AFS Intercultura Italy, on the occasion of his honorary doctorate in Intercultural Learning from the University of Padua, 2008.

3. The IDI does not have very strong correlations with any of the other study variables. However, there are several weak to moderate associations, such as this one with the intercultural anxiety scale.

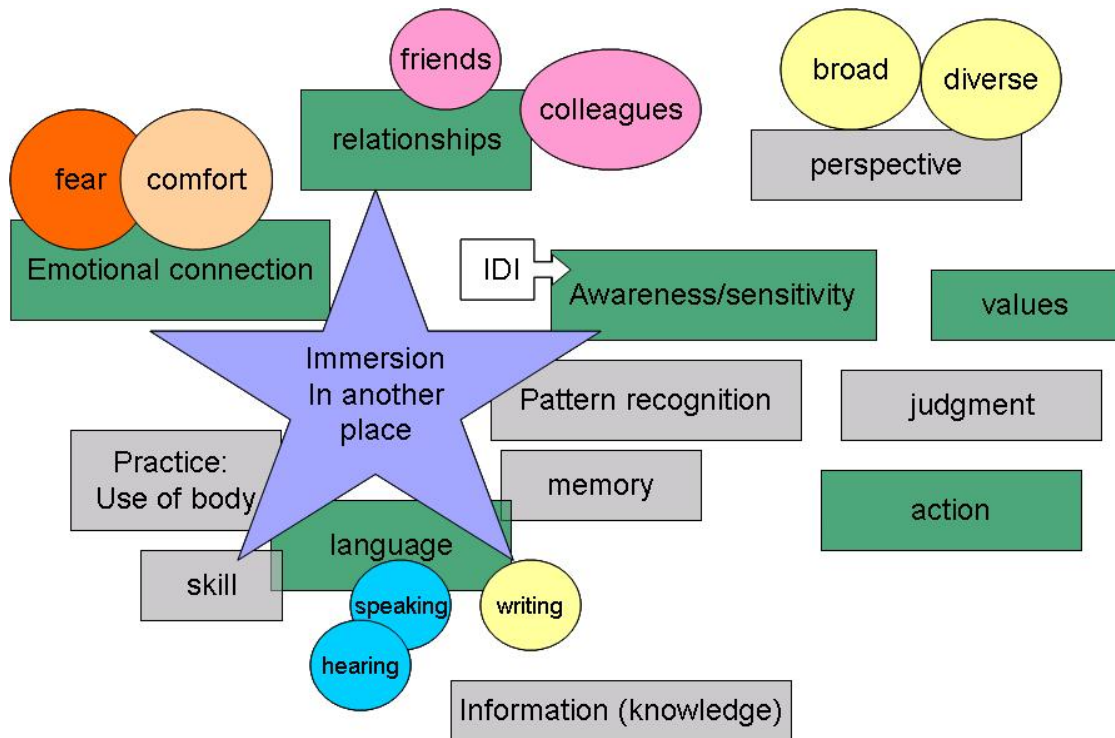




4. The jury is still out on what measures would BEST assess the outcome of a secondary school exchange program. The study found that the high school and university study abroad program were highly correlated, but there were differences to note in looking at the variables MOST associated with each experience:

Related to the AFS Experience	Related to the University Study Abroad Experience
1. Greater language fluency	1. Higher education level
2. Encourage children to meet people from other cultures	2. Living abroad for work
3. Influence of own parents	3. Greater language fluency
4. Intercultural friendships	4. Desire for intercultural career
5. Desire for intercultural career	5. Intercultural friendships

Mind-mapping variables related to immersion in another place.



Gray/Yellow: not assessed

To obtain a copy of the paper on which this presentation is based, write to me at: betsy@interculturaleyes.org or check my website: <http://www.bettinahansel.com>

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Presentation at IAIR conference: August 2009. Honolulu.

Pre-publication Version: For Review and Comments

AFS sees itself as providing “*a new learning situation where students coming from different cultural environments are helped to see their differences as resources to acquire a greater understanding of themselves rather than as deviations from the norm. That is, a situation where every culture is explained in the context of the others through a process that stimulates doubts about self, curiosity about others and an understanding of reciprocal relations and...involves students both intellectually and emotionally.*”¹

1. Introduction

As exchange programs such as AFS Intercultural Program sprung up in the years following World War II, they were seen as having a mission that would lead to international friendship and understanding and therefore prevent war. Students returned from their year of study abroad not only fluent in another language, but with an awareness that they had changed profoundly as a result of this experience. With years of organizing these programs came the understanding that the exchange program involving immersion in a host family, school, and community is a challenging and demanding experience for the participants. Coupled with the sense of transformation that the students themselves reported, efforts began at AFS in the late 1970s to try to document the learning outcomes from this experience. This effort coincided with work of educators like

¹ From “The Traveller’s Compass,” speech by Dr. Roberto Ruffino, Secretary General of AFS Intercultura Italy, on the occasion of his honorary doctorate in Intercultural Learning from the University of Padua, 2008.

David Kolb², stemming from the work of Kurt Lewin³ and Carl Rodgers⁴ on experiential learning, and related as well to the theories of Paulo Friere on informal learning and in grounding education in the context of lived experience.⁵

The *experiential* component of being immersed in another culture, particularly with a host family, was viewed as the key element to intercultural learning, and one that would bring about many positive educational results because the person was active, and “learning by doing” rather than passively sitting in a classroom. An exchange experience is both a physical and emotional experience, taking place in a foreign context, and there is a strong belief among former exchange students, their families, administrators of exchange programs, and many teachers as well that this experience produces learning that is much more valuable than time spent in the classroom. Yet it is still an ongoing reality that assessing the educational outcomes of an exchange program is problematic.

While the broad goals of the exchange program seek to build peace, the goals for the individual are to learn about another culture, make friends abroad, and to develop intercultural competence, including foreign language skills. Intercultural competence is a broad term that encompasses a wide variety of abilities related to how a person functions in a cultural setting different from his or her own cultural milieu. Different academic disciplines have approached this differently, and study abroad administrators also have their own definitions. Darla Deardorff’s work to identify the components of intercultural competence found that 80% of her sample of USA university international program

² Kolb, D.A. (1984) *Experiential Learning: experience as the source of learning and development* New Jersey: Prentice-Hall

³ Lewin, K. (1942) "Field Theory and Learning" in D Cartwright (ed.) *Field Theory in Social Science: selected theoretical papers*, London; Social Science Paperbacks, 1951

⁴ Rogers, C.R. (1969). *Freedom to Learn*. Columbus, OH: Merrill.

⁵ Freire, P. (1972) *Pedagogy of the Oppressed*, Harmondsworth: Penguin.

administrators and intercultural experts agreed that the “key elements primarily involved communication and behavior in intercultural contexts.”⁶

This consensus about intercultural competence shows the dominance of the fields of psychology and communications in shaping intercultural research. In Deardorff’s model, appropriate behavior and effective communication across cultures are seen as the desired outcomes of an ethno-relative, empathetic, adaptable and flexible frame of reference that produces the needed behavior and communication. The frame of reference shifts because of the knowledge and skills that the person has acquired, which will depend on his or her attitudes of respect, openness and curiosity.

It is in fact this entire foundation that is sought, not just the appropriate behavior and communication, which might be better seen as a manifestation of intercultural competence. Human beings are adaptable, and very good at imitation, actors especially. Like an actor taking on a new role, it may not be so unusual for someone to figure out what is expected in a new situation, and to change their behavior, either deliberately or instinctively, to match the patterns they have discovered in a new cultural context. Such a person may be consistently appropriate in his or her actions, and effective in communicating without necessarily having respect, openness or positive feelings about the other culture. This may be perfectly adequate for a business goal; an arms dealer, for example, may be a skilled intercultural negotiator.⁷ There is always a goal behind the desire for intercultural competence, and when the goal is intercultural education, and the

⁶ Deardorff, D.K., (2006) “Assessing Intercultural Competence in Study Abroad Students,” p. 243, in Byram, M. and Feng, A, (Eds) *Living and Studying Abroad: Research and Practice*.

⁷ I use this example because at a conference in the 1980s of the Society for Intercultural Education, Training and Research I met a woman who claimed to be an arms dealer who wanted to improve her ability to deal with other cultures in order to sell weapons.

organization's mission is "to build a more just and peaceful world,"⁸ then the attitudes, as Byram and Dearsorff have both pointed out, are also essential.⁹

2. AFS Research

As AFS sought to promote intercultural learning as its educational mission, among the first challenges they faced was to define and measure these learning outcomes. Traditional tests of language skill or knowledge about the host country were not adequate to capture the sense of transformation that students were reporting. An initial approach used by AFS in the early 1980s focused on impact assessment using a model originally developed to develop reliable behaviorally anchored rating scales to assess job performance.¹⁰ This method was able to identify significantly greater growth over time among exchange students than among a comparison group in several learning outcomes, and most strongly in these: "Awareness and Appreciation of Host Country and Culture," "Foreign Language Appreciation and Ability," "Understanding Other Cultures," and "International Awareness."¹¹ These findings effectively described the students' self-perceived outcomes and linked them to specific behaviors, and thus offered substantial marketing value for the organization. At the same time, there was an over abundance of high self-ratings even at pre-test among both subjects and comparison group since the scales had an obvious socially desirable direction, and the results had other weaknesses in terms of their use for the AFS organization's efforts to enhance program effectiveness

⁸ Part of the AFS Mission Statement. AFS Intercultural Programs, Inc.

⁹ Dearsorff makes this point on p. 244 in her chapter, "Identification and Assessment of Intercultural Competence" in Michael Byram and Anwei Feng (eds), (2006) *Living and Studying Abroad: Research and Practice*. Clevedon, UK: Multilingual Matters. It should also be noted that Byram's *Savoirs* begin with assessing attitudes in the assessment process. M. Byram (1997) *Teaching and Assessing Intercultural Communicative Competence*. Clevedon, UK: Multilingual Matters, pp. 91-94.

¹⁰ Smith, P.C. and Kendall, L.M. (1963) "Retranslation of Expectations: An Approach to the Construction of Unambiguous Anchors for Rating Scales," *Journal of Applied Psychology*. 47:149-55.

¹¹ Hansel, B.G. (1985), *The Impact of a Sojourn Abroad: A Study of Secondary School Students Participating in a Foreign Exchange Program*, PhD dissertation, Geography, Syracuse University.

since there was no theoretical model that suggested how higher levels of growth and learning could be achieved.¹²

When two decades later the organization again wanted to assess impact, AFS again considered creating specific competency scales more closely matched to the organization's learning goals but for quite practical considerations was drawn to the Intercultural Development Inventory which offered several advantages:

1. It was based on the Developmental Model of Intercultural Sensitivity, which proved to be intuitively appealing to the organization's leadership and one that fit into the organizations own concepts of experiential learning;
2. It had been used already in impact studies with relevant results; and
3. There was no obvious social desirability to the scale.

A 2002 study of the AFS program by Mitchell Hammer used the IDI and other questionnaires to survey AFS students from nine countries.¹³ The sample of those who responded included 1500 AFS participants and 600 friends that they nominated as a control group. Using the developmental score from the IDI, the Hammer study found significant differences between the average scores of the AFS and control groups even at the pretest.¹⁴ Unlike the control group, the AFS students showed an significant average

¹² It's worth noting that the AFS Impact study design depended on pre and post testing, which, according to Deardorff is widely accepted among study abroad administrators, but considerably less so among group of selected intercultural experts.

¹³ Hammer, M.R. (2005) "Assessment of the Impact of the AFS Study Abroad Experience," report presented to AFS Intercultural Programs, Inc. Summary report available at <http://www.afs.org/research>.

¹⁴ Independent t-tests comparing the scores of AFS and control group participants showed that the more than 5 point average difference in pre-test DS scores was significant, from Hammer (2005), p. 46.

increase by the end of their experience, which was maintained in the third measurement about 8 months after they returned home.¹⁵

More interestingly, the study also revealed that the cohort of students who began the experience at lower levels of intercultural development (with predominant results showing Denial, Defense, and/or Reversal experiences) showed greater developmental gains than were found among those with pre-test levels showing predominant Minimization tendencies.¹⁶ Additional analysis showed that these developmental groups (DD/R and M) showed significant differences in several other measures.¹⁷

What AFS learned from this research was stunning in some respects. Much of the organization's educational efforts since the late 1970s had focused on helping students overcome negative stereotypes, avoid judging the different behaviors and values they find while abroad, and cope with the stress of culture shock. While the findings from the IDI confirmed the value of the exchange program in reducing the number of students operating with Denial and Defensive approaches to cultural differences, and the most common Defense orientation was one of Reversal, where the student's own culture was viewed cynically. Still, the majority of students started with pre-test developmental levels that minimized cultural differences and for the most part they stayed at these levels. Only 5% of the participants (and none of the controls) had moved beyond Minimization by the post or post-post test.¹⁸

¹⁵ Based on a general linear model for repeated measures with the pre-test DS score used as a covariate, from Hammer, M.R. (2005), p. 47.

¹⁶ Based on frequencies analysis, from Hammer, M.R. (2005), p. 74-75.

¹⁷ Based on t-test analysis from Hammer (2005), pp. 75-81.

¹⁸ In the IDI, individuals can simultaneously show both Defense and Reversal orientations, so while 41% of the entire group began with DD/R orientations, 38% showed Reversal issues and 18% showed Denial and Defense issues, indicating that most of those with Denial and Defense issues also had Reversal issues.

The IDI proved useful to AFS for its identification of the learning needs of its students, and offered a direction for improvement, but when presented with the results from the study, many of the staff, volunteers and former participants in AFS raised questions about limits to the expectations for intercultural development that could be achieved by an adolescent, and held out for possibility that the exchange experience in high school planted a seed for later development. Couldn't it be true that the program alumni ultimately took a different path than their peers? Would an assessment at age 40 show that the AFS experience still had the power to distinguish the program alumni from their peers who did not go abroad on an exchange program in high school?

3. Intercultural Competence and the IDI

The Intercultural Development Inventory, or IDI, developed by Mitchell Hammer and Milton Bennett, stems from intercultural communication, and is based on the Developmental Model of Intercultural Sensitivity which was created by Milton Bennett,¹⁹ and was intended as a way to measure intercultural competence.²⁰ The survey instrument in its current version consists of 50 Likert-style items that the user responds to by indicating a level of agreement or disagreement with the statement posed. The development of the IDI scales, their reliability and construct validity have been thoroughly examined,²¹ and the use of the IDI as an assessment tool has grown

¹⁹ Bennett, M.J. (1993) "Toward ethnorelativism: A developmental model of intercultural sensitivity," In R.M. Paige (Ed.), *Education for the Intercultural Experience* (pp. 27-71). Yarmouth, ME: Intercultural Press.

²⁰ Hammer, M.R. and Bennett, M.J. (2001) *The Intercultural Development Inventory (IDI) Manual*, p. 5

²¹ Hammer, M.R., Bennett, M.J., and Wiseman, R. (2003) "Measuring intercultural sensitivity: The intercultural development inventory," *International Journal of Intercultural Relations*, 27: 421-43.

substantially in recent years. Over 200,000 individuals have now been surveyed using this instrument.²²

Unlike other models that have defined intercultural competence as specific behaviors and personality traits;²³ or as knowledge skills, attitudes, and awareness,²⁴ the Intercultural Development Inventory, or IDI, posits that competence is based on an underlying worldview and that the way a person construes or makes sense of the experience of other cultures is the most relevant consideration. In this respect, it takes a holistic approach to intercultural competence, and like the newer Global Perspectives Inventory, developing competence involves increasingly flexible and complex understanding of oneself and others.²⁵

In addition to the AFS study by Hammer, several small and large scale studies have used the IDI to assess the impact of study abroad programs. In the “Maximizing Study Abroad” project the IDI was used to measure intercultural sensitivity in study abroad students both before and after their experience, and in particular, to assess the value of a particular set of language and culture study materials and activities which was given to half of the students. While the study abroad experience itself was related to gains in the IDI, no significant differences were found between the group who had the special

²² Information from a personal communication with the IDI, LLC program coordinator.

²³ Van der Zee, K.I. and van Oudenhoven, J.P. (2000) “The Multicultural Personality Questionnaire: A Multidimensional Instrument of Multicultural Effectiveness.” in: *European Journal of Personality*. 14, 291-309 (2000)

²⁴ An example is the Intercultural Communication Components (ICC) used by Fantini, A.E. (2006) in *Exploring and Assessing Intercultural Competence, Final Report of a Research Project conducted by the Federation of The Experiment in International Living*.

²⁵ As described in Braskamp (2008) “Developing Global Citizens,” *Journal of College and Character*, 10:1.

learning activities and materials and those who did not.²⁶ Similarly, the Georgetown Consortium study which used the IDI as part of its examination of the study abroad experiences of students from several different US universities, found some gains in intercultural competence among the study abroad group, but the gains tended to be modest, and females tended to gain more than males. Students who tended to gain more were those who had longer experiences and those with frequent support from mentors in the host country.²⁷

It was findings such as these that led Lou and Bosley to conclude that

“... without explicit and intentional intervention into the study abroad experience, students in general will limit themselves to surface-level experiences. . . . Study abroad without intervention results in consistent but rather modest intercultural development.”²⁸

AFS would agree with this statement. Unlike many university level study abroad programs, the AFS high school exchange immerses a younger student in a host family and community, and provides orientation and support from local volunteers throughout the study abroad. Some 95% of the AFS students participating in the Educational Results study by Hammer did in fact report attending orientation activities in the host country and 99% had attended orientation prior to departure. In the host country, 88% of the students received direct support from AFS. Yet despite this, the IDI gains from pre- to post-test on

²⁶ Paige, R.M., Cohen, A.D., and Shively, R.L. (2004) “Assessing the Impact of a Strategies-Based Curriculum on Language and Culture Learning Abroad.” *Frontiers*, 10: 253-76.

²⁷ Vande Berg, M. (2009, forthcoming) “Intervening in Student Learning Abroad: A Research-based Inquiry,” *Journal of Intercultural Education*.

²⁸ Lou, K.H. and Bosley, G.W. (2008), “Dynamics of Cultural Contexts: Meta-level intervention in the study abroad experience,” in V. Savicki, (ed) *Developing Intercultural Competence and Transformation: Theory, Research, and Application in International Education*. Sterling, VA: Stylus.

the AFS program are also modest even though significantly greater than the control group.

So do we trust the measure to be our best measure of intercultural competence or do we trust the experience of so many exchange and study abroad students who are certain that their time abroad had a profound and transformational impact? Michael Byram's work on assessing intercultural communicative competence is based on five *savoirs*, each representing a different type of knowledge or skill. Byram states:

The specification of the five *savoirs* . . . cannot, in most cases, be tested by multiple choice questions. The evidence for judging whether a learner has achieved objectives related to 'deep learning' has to be interpreted . . . it has to be based on explicit and agreed criteria.²⁹

As did Lou and Bosley, AFS viewed the Hammer study findings as an indication that a better or different approach was needed in the content of the orientation and support provided for the students. AFS took several steps in response to the findings. For one, AFS began program staff assessment and training, using the IDI as a needs assessment tool. Experienced staff in various countries who worked directly with each other in support of the student programs did tend to show higher levels of intercultural development in their IDI assessments than did the students or the volunteers for that matter. In addition, a three-month distance learning staff seminar program with a small number of staff members indicated that substantial IDI gains were possible when staff were made more aware of their own culture and could openly discuss their cultural differences in forums and during conference calls. This suggested that this kind of content would also enhance learning during or after the exchange experience.

²⁹ Byram, M. (1997), p. 90.

During that time, AFS also began a long-term impact study assessing the intercultural competence and life experience of individuals who had participated in the AFS program in the 1980s. The plan for this study stemmed from the hypothesis that the full impact may require more than eight months at home, but it also provided new clues on what exactly the IDI measures.

4. The Long Term Impact Study

As a follow-up to the Hammer study of 2002, AFS returned to the cohort of exchange students from the early 1980s to see if the impact of the experience might lead to greater growth in the longer term than it had in the measures taken about 8 months after the end of the sojourn in another country. In 2006, the study began with a round of focus groups in 12 countries, which identified a wide range of intercultural experiences, relationships and influences found among AFS alumni from the 1980s and adults of a similar age. The goal of the focus groups was to gather information on the broad range of experiences, relationships, and backgrounds that characterize people in this particular generation and to explore the various types of impacts that these experiences and relationships have had on them. The focus group leaders paid attention mostly to the reactions and attitudes of the members of the group toward other cultures, but they also learned how such experiences have influenced the course of study, choice of profession, and personal choices of the group members on issues such as where to live, choice of friends, or decisions about raising their children.

The focus group findings suggested that international experience prior to age 14 was uncommon, but after childhood, most people in the focus groups had traveled abroad two or more times, whether or not they went on an AFS program in high school. It was

therefore realistic to expect that most people in the study overall would have some type of international exposure, and we wanted to assess how that exposure might relate to intercultural development.

The results from the focus group guided the research questions for the larger web survey. This paper deals with four of these questions:

- (1) Did AFS alumni after 20 or more years continue to show greater levels of intercultural development than their peers as measured by the IDI?
- (2) How might AFS alumni differ from their peers in terms of experiences, behavior, affect, and attitudes?
- (3) What factors beyond the AFS exchange are found to relate to higher developmental levels in the IDI?
- (4) What measures best assess the outcome of the AFS high school exchange experience 20-25 years later?

In April 2007 AFS launched a 15-country web-based survey of over 11,000 program alumni, asking each to nominate two peers who had not been on a high school exchange experience. Of this group, we received 1,920 responses from AFS alumni, and 511 responses from the peers that this group nominated. The surveys included two parts: a 35-item web survey dealing with the themes emerging from the focus groups, and the Intercultural Development Inventory, or IDI. These surveys could be completed through one website, and the two parts were carefully matched by password, ID and email. In most cases, respondents were able to take the full survey in their own language.

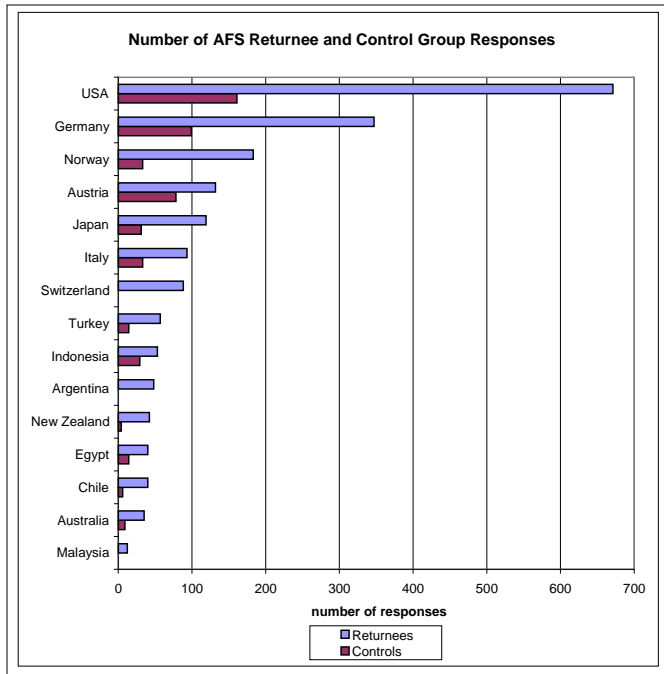


Figure 1. Numbers of Subject (Returnees) and Control group populations, by country.

(1) Did AFS alumni after 20 or more years continue to show greater levels of intercultural development than their peers as measured by the IDI?

In the earlier research by Hammer, significant differences in the developmental levels indicated by the IDI’s Developmental Scores (DS) had been found between the AFS students on the 2002-03 year-long program and their peers at every test phase. This was problematic because it suggests that a gap exists between the groups even prior to the study abroad experience. However, controlling for the initial gap with repeated measures using the pre-test score as a covariate, the research showed that the AFS students gained significantly in their overall development in intercultural sensitivity as a result of the exchange experience.³⁰

³⁰ Hammer, M. (2005) “Assessment of the Impact of the AFS Study Abroad Experience,” Report to AFS Intercultural Programs, pp. 47-48.

With the Long Term Impact Study, former AFS participants showed significantly higher DS levels than the younger group's post- or post-post test results and also significantly higher than their peers. However, the gap between the adult program alumni and their peers was smaller than for the high school exchange students. Several possible explanations could exist for this difference:

- 1) Developmental scores may increase with age and experience; therefore older control groups are more likely to have higher DS scores than high school student controls.
- 2) Two decades after their high school career, AFS alumni may be selectively in touch with former high school peers and tend to nominate peers who are more interculturally aware, resulting in a more advanced control group.
- 3) Adult control groups may be more selective in the surveys they agree to take than high school students, which could lead to greater responses among those more interested in international experiences and cultural differences.

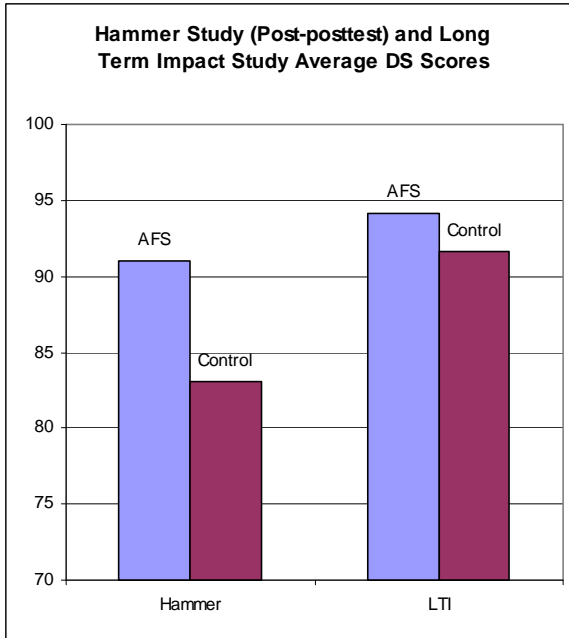


Figure 2. Lower DS scores were found for the high school AFS and Control group (Hammer) than for the adult alumni of AFS and their Control group peers (LTI)

A comparison of IDI DS Scores for both Hammer and LTI studies, by group					
	Group	N	Mean	Std. Deviation	Std. Error Mean
TOTAL	High School Group (Post- Posttest)	948	89.3339	13.65965	0.44364
	Adult Group (LTI Study)	1935	93.5996	13.81224	0.314
AFS	High School Group (Post- Posttest)	536	90.9837	13.59510	0.58722
	Adult Group (LTI Study)	1535	94.1056	13.57923	0.34659
CONTROL	High School Group (Post- Posttest)	135	83.1031	12.95691	1.11515
	Adult Group (LTI Study)	400	91.6575	14.52683	0.72634
Independent samples t-tests for each pair show significant difference at p=0.000					

Looking just at the LTI study, independent samples T-Tests confirmed 95% confidence that there is a 1-4 point difference between the AFS alumni and their peers in the IDI developmental scores (DS). Complete DS scores were available for 400 Controls and 1534 AFS alumni, and the probability that these differences were due to chance factors is less than 1% ($p=0.003$, not assuming equal variances).

Without the sheer volume of this study, however, it would have been difficult to establish a significant difference using the IDI. A 1-4 point average difference on a variable with a 97 point range is not exactly overwhelming. The trend is supported, however, when the DS results are aggregated in developmental categories that distinguish between Defense and Minimization orientations. The table below shows the proportions of AFS and Control group respondents falling into each of the developmental categories. We can see from this table that the average of the control group is being raised by the 5.2% who scored at the high end (Acceptance/Adaptation) representing 21 individuals, and a clearer trend can be seen comparing the Denial/Defense and Minimization groups.

	Denial/Defense (including reversal)	Minimization	Acceptance/Adaptation
AFS	28.70%	65.70%	5.60%
	N= 440	N=1009	N= 86
Control	35.50%	59.20%	5.20%
	N= 142	N= 237	N= 21
Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.072*	2	0.029
Likelihood Ratio	6.916	2	0.031
Linear-by-Linear Association	5.54	1	0.019
N of Valid Cases	1935		
* 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.12.			

In spite of the statistical significance, the IDI results are close and a bit muddled as we consider some of the other factors that are influencing the IDI scores in this study.

(2) How might AFS alumni differ from their peers in terms of experiences, behavior, affect, and attitudes?

First let's take a look at how some of the other variables in the LTI study distinguish AFS alumni from their peers in terms of international experiences, self-reported behavior, intercultural anxiety and comfort, and other attitudes related to openness and intercultural competence.

International Experiences

When studying the long term impact of a high school experience some 20 years later, the outcome can be expected to be influenced by a whole range of life experiences beyond the exchange itself. To the extent that the AFS alumni have developed an interest in other cultures and an orientation toward accepting cultural differences, they may also be more likely to be in touch with peers who are similarly oriented. We know that many individuals in the Control group have also had international experience, and in fact, the extent of additional international experience can also be considered one of the outcomes of the AFS high school exchange. So, for example, while 34% of the AFS alumni also studied abroad in their university years, 22% of the control group took part in some type of university level study abroad as well. This difference is statistically significant, but it means that we also need to control for the impact of a university experience to the extent that we can, since it impacts 1 in 5 of the control group members. In the LTI study, our analysis of the impact of the university experience and the other variables in this study show that the AFS and University Study Abroad experiences are highly correlated.

Further investigation of the biographies of the AFS and Control groups show differences even from childhood. As a group, AFS alumni traveled abroad more than their peers who didn't participate in a high school exchange, and were more likely to have parents who encouraged them to meet people from other cultures and to study abroad. (Figure 3) After their university years, those who participated in the AFS program were more likely to live abroad for at least a year, either for their own work or to follow a spouse with an overseas assignment. (Figure 4)

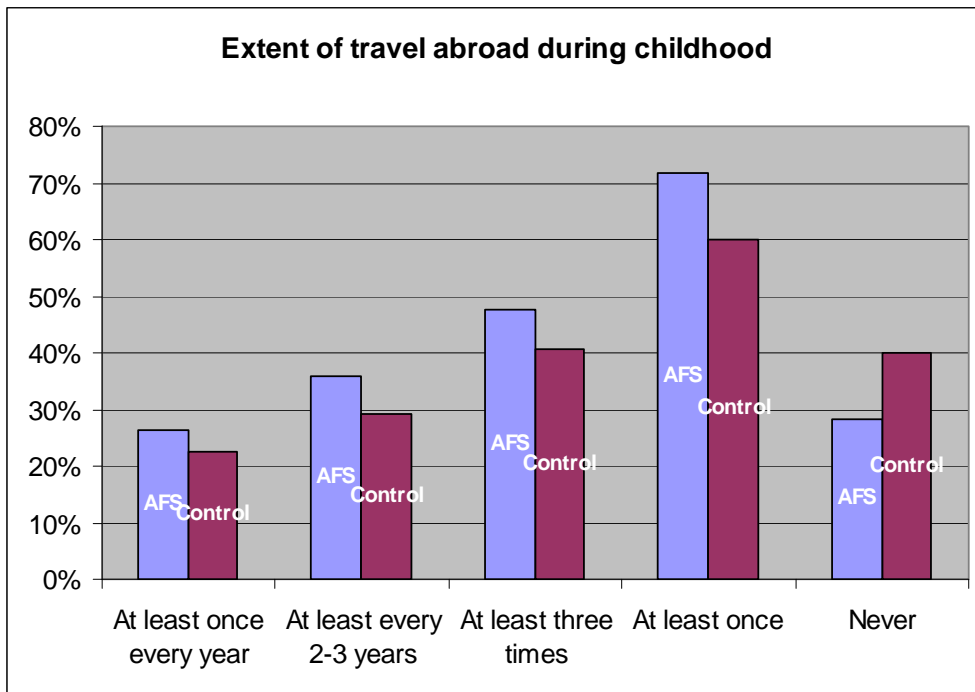


Figure 3. The bar chart shows cumulative values for travel abroad experiences in childhood by AFS alumni and Controls. The table below shows a breakdown of responses. Chi Square analysis follows.

		AFS	Control	Total
Two or more times every year	Count	153	27	180
	% within Group	7.80%	5.10%	7.30%
Once every year	Count	363	92	455
	% within Group	18.60%	17.30%	18.30%
Once every two or three years	Count	182	36	218

	% within Group	9.30%	6.80%	8.80%
Three or four times in total	Count	230	60	290
	% within Group	11.80%	11.30%	11.70%
Once or twice in total	Count	468	104	572
	% within Group	24.00%	19.60%	23.10%
Never	Count	554	212	766
	% within Group	28.40%	39.90%	30.90%
Total	Count	1950	531	2481
	% within Group	100.00%	100.00%	100.00%
Chi-Square Tests				
	Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square	29.399*	5	0.000	
Likelihood Ratio	29.027	5	0.000	
Linear-by-Linear Association	14.714	1	0.000	
N of Valid Cases	2481			
*0 cells (.0%) have expected count less than 5. The minimum expected count is 38.52.				

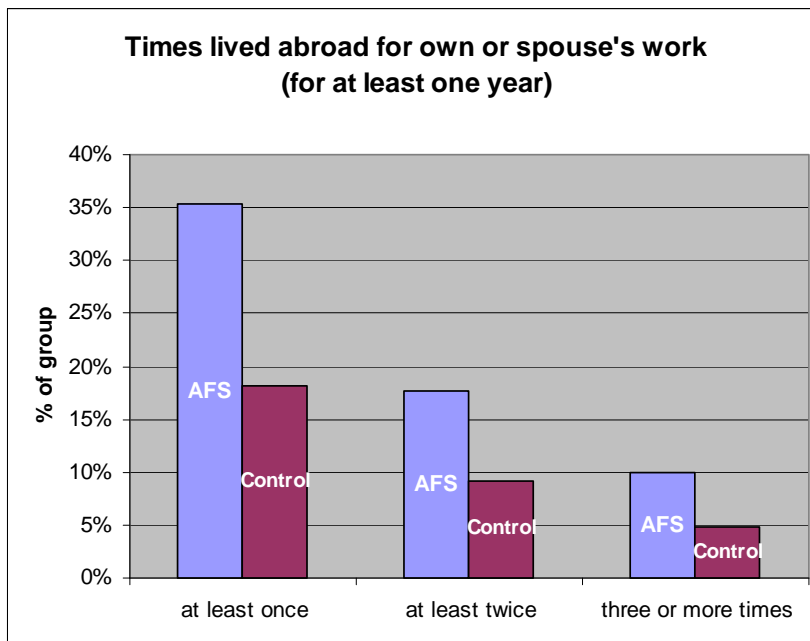


Figure 4. The bar chart displays the cumulative percents of AFS alumni and Control group members and the number of times they had lived abroad for at least a year due to their own work or to follow a spouse working in another country. The table below shows the breakdown for each response. Chi Square analysis follows.

# of times lived abroad for work		AFS	Control
none	Count	1213	410
	% within Group	64.70%	81.80%
once	Count	330	45
	% within Group	17.60%	9.00%

twice	Count	146	22
	% within Group	7.80%	4.40%
three or more times	Count	185	24
	% within Group	9.90%	4.80%
total	Count	1874	501
	% within Group	100.00%	100.00%
Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.626*	3	0.000
Likelihood Ratio	57.981	3	0.000
Linear-by-Linear Association	43.427	1	0.000
N of Valid Cases	2375		
*0 cells (.0%) have expected count less than 5. The minimum expected count is 35.44.			

Behavior

Several variables used in this study focus on the individual's self-reported behavior in different ways and in a number of them, significant differences were found between the AFS alumni and control groups. Figure 5, for example, shows the extent to which AFS alumni are more likely to report a greater portion of their personal and professional contacts as coming from other cultures.

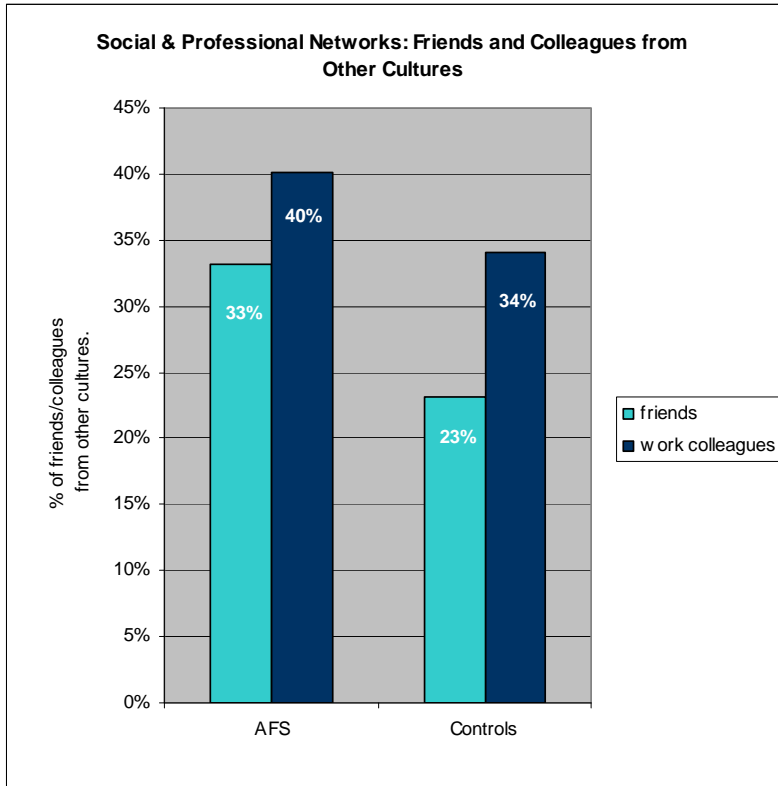


Figure 5. AFS alumni and control groups compared by self-reported % of the number of their friends or professional contacts that are from other cultures.

Looking at the entire study population, a significant low-level inverse correlation is found between the self-reported percentages of friends from one’s *own* culture and the IDI developmental score.³¹ To look at this impact in another way, we split the study population into two groups: those who reported that more than 25% of their friends came from other cultures (N=807) and those who had 25% or fewer of their friends from other cultures (N=946). With 95% confidence, the study found the difference in DS scores for these two groups to be between 1.7 and 4.3 points.³²

³¹ Pearson 2-tailed correlation is -.117, p<0.001

³² Results from Independent samples t-test, p<0.001

The AFS group overall is also somewhat more educated, with over 90% having a college degree and more than half having attained a masters or doctorate level degree.

Education Level Attained	AFS	Control
College Graduate or Higher	90.40%	81.40%
M.A. or Higher	51.00%	43.20%

The study also included a self assessment of the number of foreign languages the respondents spoke with a moderate level of fluency as defined by a descriptive text taken from the ILR³³ “Moderate Proficiency” rating. Fluency at this level is described as being able to speak with sufficient grammatical accuracy and vocabulary to participate effectively in most formal and informal conversations; discuss particular interests and special fields of competence with reasonable ease; and comprehend completely at a normal rate of speech. As shown in Figure 6, AFS alumni report speaking more languages with this level of fluency than do members of the control group. Since language fluency testing could not be included in this survey, it is important to remember that this difference is subjective and could be due to factors such as a possible greater confidence in one’s language ability among the AFS group who had more practice in at least one of these languages on a day-to-day basis as a teenager.

³³ A rating scale developed by the Interagency Language Roundtable. See: <http://www.utm.edu/staff/globeg/ilrhome.shtml> and http://books.nap.edu/openbook.php?record_id=11841&page=360

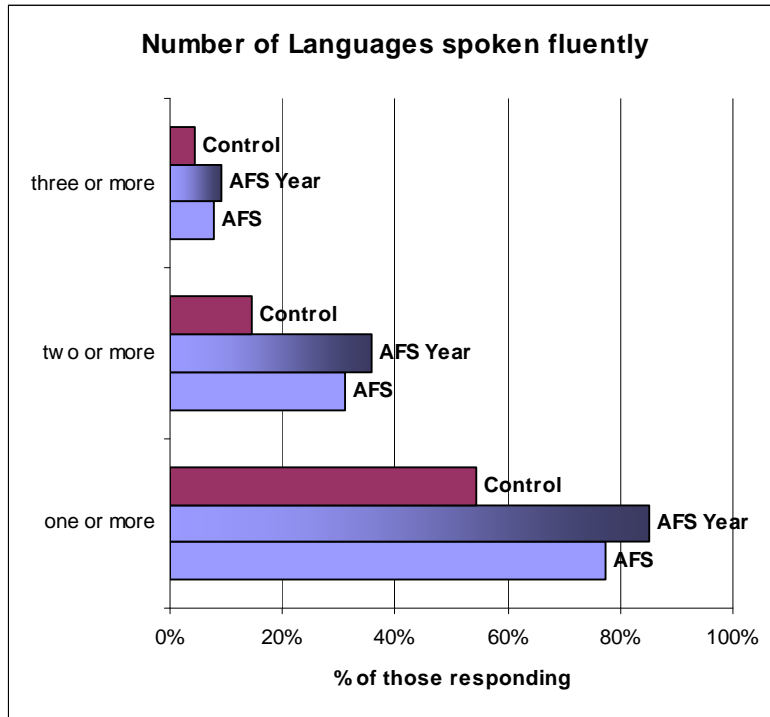


Figure 6. Cumulative comparisons of AFS alumni in two categories and the control group. About 1/4 of the AFS alumni participated in a 2 month exchange, while the rest were there for a full school year. The short program results bring the overall average down.

Two other behaviors very much related to the AFS experience were found to distinguish AFS alumni from their peers. A quarter of all AFS alumni surveyed had hosted an exchange student at least once compared with 14% of the controls. AFS alumni are also somewhat more likely to volunteer time to organizations with an international or an intercultural focus, and to see this activity as increasing in the years to come.

Affect: Intercultural Anxiety and Safety

As Ján Figel', Member of the European Commission responsible for Education, Training, Culture and Youth, noted in his remarks at the Moving Beyond Mobility conference in Berlin in 2008, the achievement of study abroad is to help people feel

themselves to be at home in the midst of a foreign culture.³⁴ The opposite of this, then, would be to feel anxious, defensive, and uncomfortable around other cultures. One of the strongest findings from the 2002 study by Mitch Hammer was the significant pre-test to post-test drop in intercultural anxiety as a result of the AFS experience. The Intercultural Anxiety scale used in both the Hammer and LTI studies is an adaptation of the Stephan & Stephan 1985 Intergroup Anxiety Scale by Gao & Gudykunst.³⁵

In the LTI study, the intercultural anxiety level of the AFS alumni group was about 5% lower on average than it was for the controls. Anxiety is significantly and inversely related to the IDI's DS scale³⁶ and in Figure 7 we see that relationship for both the AFS and Control groups. What we see is that the median anxiety level drops at each successively higher level of intercultural development, but at all levels the AFS alumni or "returnees" (RET) are less anxious than the members of the Control Group (CTL).

³⁴ Moving Beyond Mobility. October 13, 2009. Opening Remarks to the Conference.
<http://www.movingbeyondmobility.org>

³⁵ Gao, G. and Gudykunst, W.B. "Uncertainty, anxiety, and adaptation," in *IJIR* 14 (1990), 301-317.

³⁶ Pearson 2-tailed correlation is $-.156$, $p < 0.01$

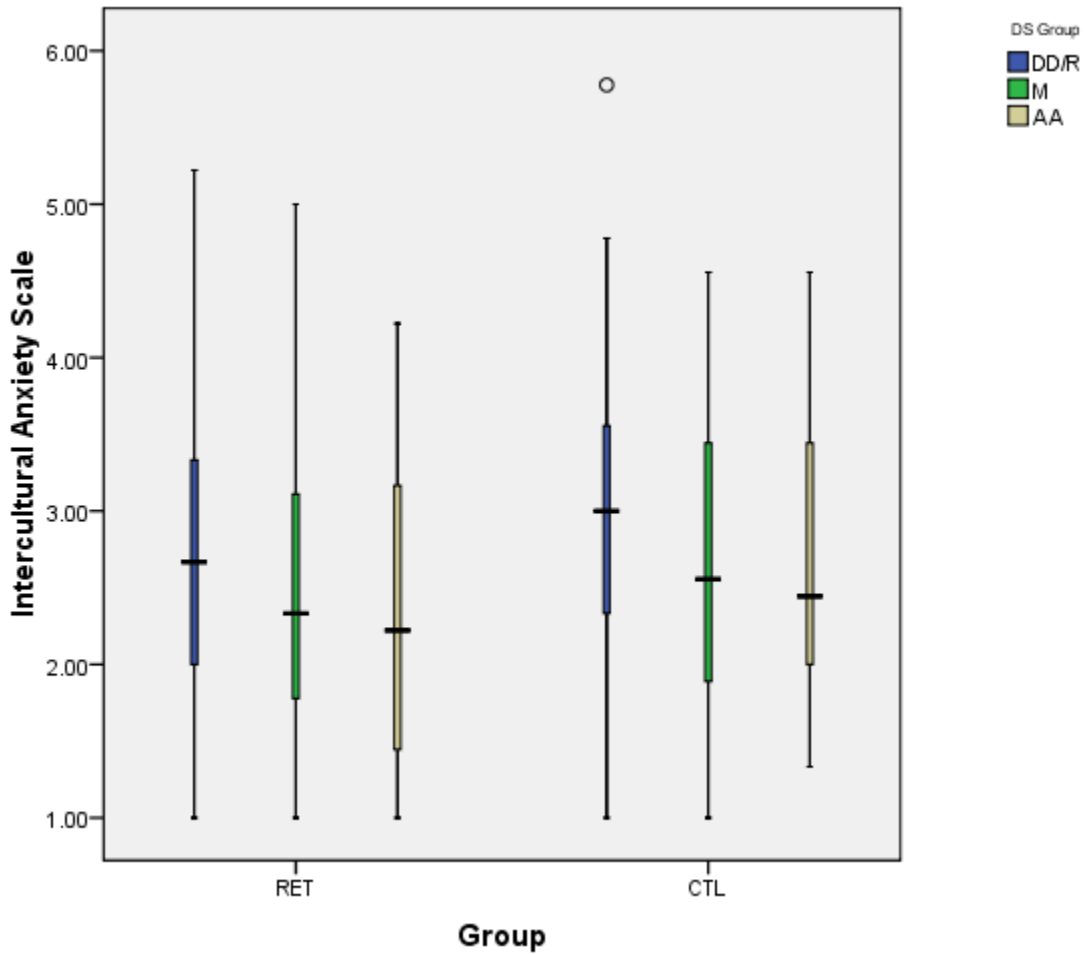


Figure 7. Median and quartile scores on the intercultural anxiety scale are plotted by IDI developmental group for both AFS alumni (RET) and the Control group (CTL).

Research by Gudykunst and Nishida shows that feelings of anxiety around people from other cultures tend to inhibit effective communication and negatively affect adaptation.³⁷ Not surprisingly, the Intercultural Anxiety scale correlated significantly as well with responses indicating concerns about personal safety both at home³⁸ and when traveling abroad.³⁹

³⁷ Gudykunst, W.B. & Nishida, T. “Anxiety, uncertainty, and perceived effectiveness of communication across relationships and cultures,” in *International Journal of Intercultural Relations (IJIR)* 25 (2001) 55-71.

³⁸ Pearson 2-tailed correlation is .531, $p < 0.01$

³⁹ Pearson 2-tailed correlation is .245, $p < 0.01$

Attitudes: Life Choices Passed to Children

With a limited number of items in our survey, the relevant attitudes that could be assessed concerned the desirability and choice of living in a multi-cultural neighborhood or area, and extent to which the respondents tried to encourage their children to meet people from other cultures and to study abroad. For these items, Chi Square tests showed significant differences in the expected direction, with AFS alumni more likely to find it very desirable to live in a multicultural neighborhood and much more strongly in agreement that they want their children to meet people from other cultures and to study abroad. In and of themselves, these responses are not surprising and may reflect some halo affect as well particularly if the AFS alumni are trying to please AFS with the responses.

(3) What factors beyond the AFS exchange are found to relate to higher developmental levels in the IDI?

As suggested by this study, and as stated by Milton Bennett in his essay for the special edition of the *Journal of Intercultural Education* (2009), the IDI should be used in conjunction with other variables and measures because “the instrument is not very sensitive to individual differences; it tends to overestimate the “normative” condition – Minimization – and underestimate the extent of more ethnocentric or more ethnorelative positions.”⁴⁰ Financial and time constraints did not permit extensive qualitative analysis in the LTI study, but correlations of IDI scores with other variables did yield some insights into what the IDI is measuring.

A step-wise linear regression model found eight variables that, combined, explained about 9% of the variance in IDI scores:

⁴⁰ From pre-publication review version as posted on <http://www.movingbeyondmobility.org>

- the perceived desirability of living in multi-cultural neighborhoods;
- lower levels of reported concern about personal safety while traveling;
- lower anxiety in general around other cultures;
- participation in university study abroad;
- job requirements for frequent interaction with people from other cultures;
- lower level concern about personal safety at home;
- being female; and
- having a master's or doctoral degree.

Other variables that have significant correlations with the DS scores but did not contribute to the overall model include having a high percentage of friends from other cultures and language fluency, and of course, participation in the AFS experience. All of these are very low level correlations, but nevertheless a clear pattern in the data can be seen that average DS scores increase for individuals who have several international experiences. So, for example, if we select only cases of Control group members who have no study abroad experience, who never traveled abroad as children, who have never hosted an exchange student and never volunteered for an organization with an international or intercultural focus, the average DS score is 87.3. If we select instead AFS returnees who also went on university study abroad where they lived with a host family, the average DS score is 95.3, and if we look only at the 31 AFS alumni who also went on a university study abroad, who frequently traveled abroad as children, and who hosted exchange students and volunteered for an organization with an international focus, the

average DS score becomes 98.6. These are just simple averages but the trend is unmistakable, and fits the claim that the Intercultural Development Inventory is a measure of experience: specifically, how one experiences cultural differences. But the low levels of correlation show that the relationship between exposure to another culture and intercultural sensitivity is not automatic.

I believe this is because the DMIS model on which the IDI is based demands a high level of consciousness about the experience: the person must think about the experience and what it means. I believe this is why the university study abroad programs are more closely associated with DS level than the high school experience, and why the study found higher DS levels with higher education levels, particularly in the gap between the 4-year college degree and post-graduate degrees.

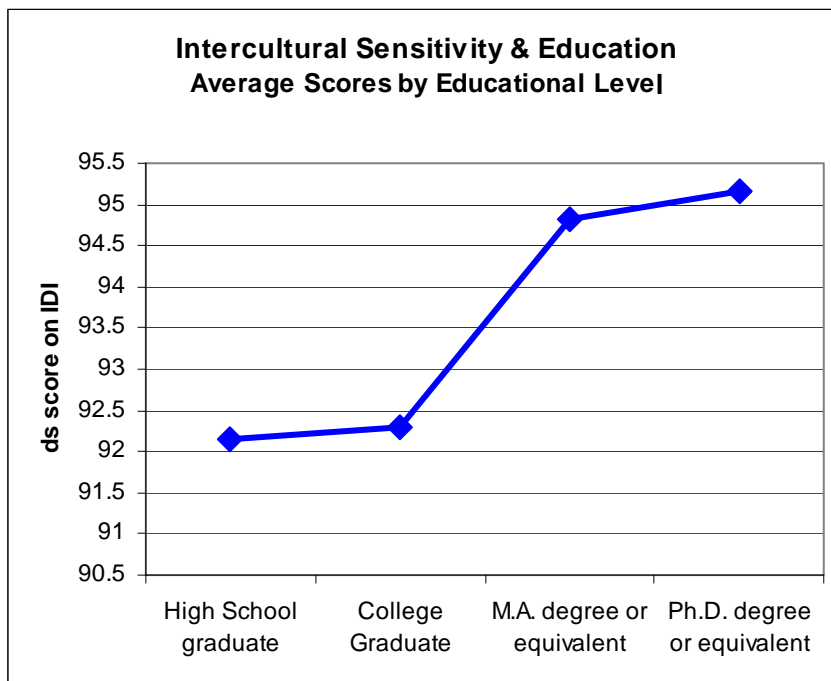


Figure 8. Developmental Scores (DS) by education level attained. Based on full study population (AFS and Controls) of 1928 responses. ANOVA shows significant differences in variation among the groups; $p=0.002$.

(4) What measures best assess the outcome of the AFS high school exchange experience 20-25 years later?

Kendall’s Tau correlations of the variables related to the high school programs found that the self-reported fluency in other languages was the variable most associated with the exchange experience.⁴¹ Another category of variables: the influence of the parents and the attitudes the respondents are passing to their children about other cultures, also have a strong relation to AFS participation, as well as the establishment of intercultural friendships and the desire for an intercultural career. In comparing the AFS program with the university level study abroad experience, the order is different but elements are similar. The essential difference between the two seems to be that the AFS experience is not as strongly associated with higher education achievement or working abroad later in life, while the university experience is far more associated with higher education levels and not as much related to language fluency (through this is still important) or family influences as is the AFS experience. The developmental score from the IDI is more associated with university study abroad than it is with AFS, but the DS score is much less related to either experience than these other dimensions.

Related to the AFS Experience	Related to the University Study Abroad Experience
1. Greater language fluency	1. Higher education level
2. Encourage children to meet people from other cultures	2. Living abroad for work
3. Influence of own parents	3. Greater language fluency
4. Intercultural friendships	4. Desire for intercultural career
5. Desire for intercultural career	5. Intercultural friendships

⁴¹ Results are reported in B. Hansel, *AFS Long Term Impact Study Report 1: 20 to 25 years after the exchange experience, AFS alumni are compared with their peers.* <http://www.afs.org/research>

5. Challenges, Strengths and Practical Considerations

AFS is fortunate to have a tremendous volume of former exchange program participants to work with in doing this assessment and thus the Long Term Impact Study was able to find statistical significance between the program alumni and their peers in terms of their IDI assessment. However, the difficulty with this volume is that the study ends up relying either on the overall DS scores, which is a weighted measure in this proprietary system of the predominant orientation to cultural difference, or the slightly more useful developmental level groupings. The results of the LTI study show very modest benefits for AFS alumni in terms of the IDI, and show that intercultural development as measured by the IDI is probably not the best indicator of the outcome of the exchange program.

At the same time, the IDI assessment is highly relevant in terms of the exchange program's educational goals, and organizations like AFS are interested in learning what it takes to increase intercultural sensitivity and awareness. Anecdotally, it turns out that it may be relatively simple to teach with the goal of moving people forward according to the Developmental Model of Intercultural Sensitivity and achieve higher developmental scores among those motivated by the concepts. At AFS, the IDI was used with program staff to assess training needs and among eight staff who were motivated to complete all the requirements of a 3-month distance-learning seminar designed to raise intercultural awareness, post-test IDI assessments revealed substantial growth for all. This kind of achievement was possible, however, because the staff involved work daily with colleagues from around the world and most had substantial international experience prior

to the course. I don't believe it is possible to "teach to the IDI" to those who do not also have the experience of other cultures that animates the theory.

The problem with using the IDI for assessing impact is not that the scales are irrelevant. Nor, I would argue, is the problem chiefly one of those identified by Milton Bennett,⁴² that the scale tends to average at Minimization, which it does. While it is true that some richness of understanding is lost in working solely with aggregate figures, it may also be true that Minimization is a common or even dominant approach to cultural differences for most people. The larger problem with using the IDI to assess impact is that the DS scores have been shown to be only somewhat correlated with participation in AFS or study abroad programs, which leads to one of these conclusions: either these programs are not meeting their goals as much as they hoped, or all the goals they have for students are not measured well by the IDI, or both. Probably it's not so simple.

Some examples are indicative. Prior to their departure on the exchange program, but after a good number of them had attended selection camps and other preparation activities, the AFS participants in the 2002 Educational Results Study by Hammer⁴³ already had significantly higher levels of intercultural sensitivity as measured by the IDI. Similarly, Jane Jackson's work preparing students in China for a short-term exchange in the United Kingdom found that DS scores increased an average of over 8 points for her group following an intensive pre-departure orientation but before the students went

⁴² Bennett, M.J., (2009) "Introduction: Defining and Measuring Intercultural Learning in Study Abroad," *Journal for Intercultural Education*, June. Pre-publication version available at <http://movingbeyondmobility.org>.

⁴³ Hammer, M.R., (2005).

abroad,⁴⁴ similar to the increases achieved during the experience itself. Finally, a major study of university students, the Georgetown Consortium study, completed in 2008⁴⁵ found that students who had coaching and support showed significant gains as assessed by the IDI while those who did not have such an intervention generally did not show such increases.

From these findings, it would seem that the IDI may be more strongly related to specific courses and activities designed to promote awareness of concepts related to cultural differences than to the study abroad experience itself. The outcomes of the experience itself may have more to do with the sense that students make of the emotional and sensory experience they have had, their sense of confidence in adapting to a new situation and learning a new language, the importance of the friendships they have made in leading to a new understanding of themselves, or even their ability to manage without their parents and attain an increased maturity. These changes are more transformational than incremental or developmental, and may in the end be more compelling as valuable outcomes.

⁴⁴ Jackson, J. (2009) "Intercultural Learning on Short-Term Sojourns," *Journal for Intercultural Education*, June. Pre-publication version available at <http://movingbeyondmobility.org>. It should also be noted that only 13 students were included in this study.

⁴⁵ Vande Berg, M; Connor-Linton, J. & Paige, R. M. (2009, forthcoming). The Georgetown Consortium study: Intervening in student learning abroad. In *Frontiers: The Interdisciplinary Journal of Study Abroad*, XVIII.