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INTERCULTURAL EFFECTIVENESS
DEVELOPMENT OF AN INTERCULTURAL COMPETENCY SCALE

presented by

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Ph.D degree in the Department of
Educational Administration

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INTERCULTURAL EFFECTIVENESS:
DEVELOPMENT OF AN INTERCULTURAL COMPETENCY SCALE

by
Muriel I. Elmer

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration

1986

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ABSTRACT

INTERCULTURAL EFFECTIVENESS: DEVELOPMENT OF AN INTERCULTURAL COMPETENCY SCALE

by

Muriel I. Elmer

Certain skills and attitudes are necessary for living and working effectively in another culture. The recognition of these competencies is a pressing concern for international agencies. A significant need exists for a systematic approach to the assessment of intercultural competencies for selection and training purposes.

The intent of the research was to design an empirically-based instrument which measures indicators predictive of intercultural effectiveness. The resultant instrument was named The Intercultural Competency Scale.

An analysis of the research literature revealed several predictive indicators which provided the basis for the items in the scale. The scale was subjected to three field-tests and the data gathered were used for revision. Form A was field-tested with 35 graduate students; Form B was field-tested with 462 North American subjects, largely graduate and undergraduate students; and Form C was field-tested with 489 subjects, more than half of whom were missionaries working in 30 different countries. The scale was evaluated for content validity and factor analyzed for construct validity. Finally, responses to the scale were correlated

with three external performance criteria to establish criterion related validity. The three performance criteria were: Personal Adjustment, Task Effectiveness and Relationships with Nationals.

The final version of The Intercultural Competency Scale, Form D, contains 40 items representing 12 factors, important predictive indicators for intercultural effectiveness:

- I. Approachable
- II. Intercultural Receptivity
- III. Positive, Realistic Orientation
- IV. Forthrightness
- V. Social Openness
- VI. Enterprise
- VII. Shows Respect
- VIII. Perseverance
- IX. Flexibility
- X. Cultural Perspectivism
- XI. Venturesome
- XII. Social Confidence

Six factors in the scale correlated at the .05 level with one or more external performance criteria of intercultural effectiveness for the entire missionary sample. These factors were II, IV, IX, X, XI, XII. Eight factors correlated at the .05 level with one or more external performance criteria for one or more groups of missionaries. Six factors need further study.

The instrument shows promise for the qualitative improvement of the selection and training of expatriate personnel.

TO

Duane . . . who showed me the way,
Scott . . . who stayed close and helped,
and Marc . . . who said, "Go for it, Mom."

ACKNOWLEDGEMENTS

Instrument development research is a challenging endeavor. Without the participation of a great many people, The Intercultural Competency Scale could never have come into being.

I am especially grateful to Ted Ward, the Chairman of my Research Committee, for his expert guidance and his consistent encouragement throughout the course of the research study. I learned from him. His contribution to my professional development has been profound.

I would also like to express my thanks:

To Jo Levine and Larry Sarbaugh, two members on my Research Committee, who generously shared their time and insights especially during the last phases of the research.

To Len Bianchi, the statistical consultant, who wrote many computer programs and assisted me through the complexities of factor analysis.

To Wayne Detzler, Margaret Detzler, Ron Iwasko, LeRoy Johnston, Don Moore, Carl Polding, Ron Rowland, June Salstrom, Wayne Shabaz, Phil Steyne, Glenn Taylor, and the staff at Missionary Internship for their insights and help in finding subjects to field-test the scale.

To Pat Mortenson, Jim and Bev Bunnell and David and Brenda Kandt who never failed to ask about the progress of

the research and show their support in many practical ways.

To Bev Bunnell for her excellent proof-reading of the document.

To Wayne Shabaz, of W. Shabaz Associates, Inc., for helping me to keep the needs of the corporate expatriate in view as I developed the scale.

To the hundreds of missionaries, missionary candidates, graduate and undergraduate students and, corporate expatriate personnel for their cooperation in filling out the The Intercultural Competency Scale.

Finally, to Duane, my husband and expert intercultural communicator, who was always there with his unqualified support.

And to my sons, Scott and Marc, whose unfailing help and encouragement gave me the courage to press on during the year and a half it took to produce the final document.

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I

STATEMENT OF THE PROBLEM

The capacity to select and train individuals to live and work successfully in another culture is a pressing concern for any international agency. Those who select and train expatriate personnel, need more effective ways to identify people who are prepared for successful intercultural interaction. To this end, an instrument development study is undertaken to identify individuals who demonstrate such competency.

PROBLEM

The world-wide missionary work force constitutes a large segment of the North American expatriate community. The missionary sector is the major focus of this study. A survey of mission agencies' selection practices revealed that Christian commitment, knowledge of the Bible, previous work experience and mental health are viewed as the four most significant issues in candidate selection (Ferguson et. al., 1983:247). Personnel directors for mission agencies are able to assess potential candidates rather well in these areas but lack the capacity to systematically assess competencies for intercultural interaction.

Personnel directors assess Christian commitment, knowledge of the Bible and past work experience of the potential candidate through interviewing, and checking references and

educational degrees. They are well aware that the task is always more challenging within an intercultural context because of the many accommodations that must be made to cultural differences (Brislin, 1981). Therefore, pre-departure task proficiency must be assured.

Personnel directors assess the mental health of a potential candidate by relying on interviews with mental health professionals. Ferguson et. al. reported that "some form of consultation" with "a mental health professional is fairly common practice" and that one-fourth to one-third of the selection interview time is used in this way (1983:249). Psychological testing is part of the psychological assessment.

The tremendous stresses inherent within the intercultural context (Barna, 1983), require that a prospective missionary be healthy mentally. Williams (1973) identified mental health reasons and a failure to adjust as accounting for over 30% of the missionary resignations in one large mission agency.

However, mental health alone does not guarantee intercultural success. It is possible to have one's mental health and still not possess several of the predictive indicators for intercultural success (Hawes and Kealey, 1979). These predictive indicators are classified as specific attitudes and social skills which are differentiated from psychological traits. Mental health alone appears to be a necessary, but insufficient, indicator of

intercultural success. Several published research reports from the Peace Corps indicate that "overall, results of this extensive research did not support the predictive validity of personality traits" (Kealey and Ruben, 1983:156). (See also Stein, 1966; Guthrie & Zektick, 1967; David, 1972; Harris, 1977.) The relationship between certain personality traits and the predictive indicators for intercultural success is not denied. However, given the lack of predictability of personality traits alone, a broader approach to the selection problem is needed.

Kealey and Ruben (1983) have summarized the predictive indicators for intercultural success. The list of indicators provides an instructive profile for the successful expatriate. Three out of four types of international agencies (Peace Corps, Business, Technical Assistance and the Military) mention several of the same indicators in their respective literature. Such convergence strengthens the profile considerably. However, a major problem surfaces: how does a personnel director in a mission agency recognize and measure these particular indicators within a prospective missionary?

The personnel director's capacity to identify and assess many of the predictive indicators within any individual is largely intuitive. At best, assessment consists of rough estimates of the critical indicators. No systematic means exist for measuring these predictors other than the random cues that emerge from interviews and references.

Kealey and Ruben make the following comment on the need for systematic assessment:

While behavioral-social-communicative competencies are often taken into account on an informal basis in intracultural personnel selection processes, growing evidence . . . suggests that the ability to display empathy, respect, interest in the host culture, flexibility, and tolerance are so crucial to cross-cultural outcomes that these skills ought to be systematically taken into account as a part of the cross-cultural selection process (1983:171).

Ferguson et. al. reported that many personnel directors expressed a desire to "learn how to select candidates to avoid first-term failures" (1983:249). The cost in terms of human suffering is difficult to measure. Long after resignation the person carries a feeling of failure and loss of self-confidence.

Other costs include broken relationships, eroding host national trust and, interrupted projects. The tremendous financial outlay of training and moving a missionary family overseas seems to be the smallest cost of all. Any means that will improve selection and training procedures which help avoid these costs is worth the effort.

Several intercultural competency rating forms do exist but lack empirical demonstration of validity. There is a need for an assessment instrument, empirically validated, that measures a missionary candidate's readiness for intercultural interaction. Such an instrument would give the personnel director another significant set of data for the selection and training process to help assure the missionary candidate's intercultural success.

The missionary selection problem is complex. Even the accurate measurement of predictive indicators does not guarantee intercultural success. Many other field-based variables can negatively impact effective intercultural interaction. These variables cannot be controlled. However, the predictive variables can be controlled through assessment and training. It is time to find a way to measure these variables and to control that much more of the selection and training process.

PURPOSE

The purpose of this study is to design an instrument which measures readiness for intercultural interaction. The instrument is grounded in precedent research and tested for validity against external performance criteria.

RESEARCH QUESTIONS

The research seeks to answer the following questions:

1. What predictive indicators of intercultural effectiveness exist to warrant the building of an intercultural competency scale?
2. Is it feasible to create items, based upon identified predictive indicators, that can be demonstrated to function together within distinct factors?
3. Will the identified items and factors correlate with an external criterion of intercultural effectiveness?

PROCEDURE

The research procedure is divided into four major tasks. The first task is to originate the instrument items

based upon the research literature. The second task is to field-test the instrument with a small sample of subjects in order to check for content validity and for clarity. The instrument will then be revised on the basis of the findings. The third task is to field-test the instrument with a larger sample of several hundred subjects in order to identify factors that are functioning within the instrument. The instrument will be revised again on the basis of the findings. The fourth task is to field-test the instrument with a new group of several hundred subjects a large proportion of which will be missionaries. Correlations with external performance criteria will be computed to determine construct validity. This field-test will also serve as an additional verification of the stability of the factors. The instrument will undergo another revision on the basis of the findings and will be entitled: The Intercultural Competency Scale.

DEFINITION OF TERMS

For clarity and precision, a definition of distinctive terms are submitted. Illustrations are added to provide greater understanding of the terms as they are being used in the study.

Expatriate: a generic term used to designate a person who lives and works in a country other than the one in which that person holds citizenship.

There are many expatriates who have served many years abroad without attaining fluency in languages (Teague, 1976:17).

National: a citizen of the country in which an expatriate is working.

Nationals in six countries in Asia, Africa, Latin America, and the Caribbean expressed the generally consensual opinion that Canadians should interact with them and be their friends" (Hawes and Kealey, 1979:xxiii).

Host Country: the country to which an expatriate is assigned.

According to Taft (1977), one aspect of the adjustment process is an "identification" with the host country (Brislin, 1981:124).

Missionary: a specific category of expatriate, a religious worker who enters another country or culture in order to share the Christian message and assist the host country people to meet their own needs.

. . . it has been religious missionaries far more than other expatriates or conquering entrepreneurs who have taken an interest in the welfare of people and devoted themselves to the upgrading of the quality of life (Ward, 1984:225).

Missionary Candidate: a prospective missionary who has been screened and selected to work in another country or culture.

The Independent Lutheran Church of Kenya trains missionary candidates in "missiology, art and crafts, music and literature" before sending any workers to the field (Keyes, 1982:221).

Mission Agency: an organization responsible for the selection and deployment of missionaries to work in various countries and cultures around the world.

. . . the use of pretraining data for the purpose of prediction has merit. Mission agencies can thus be encouraged to make use of such data to screen applicant . . . with a greater level of confidence (Britt, 1983:211).

Intercultural: refers to the contacts or exchanges between cultures (Ward, 1984:72).

The subtleties of intercultural communication are probably nowhere more apparent than in communication which involves humor (Sarbaugh, 1979:15).

Third Culture: the values, styles of life, and patterns of interaction that are created and maintained by persons who cross societal boundaries as representatives of some sponsoring organization (Ward, 1984:247 based on Useem, 1967).

These people often have more in common with others who are also from the expatriate community than they do with people of their first culture or with natives of the land where they now live. They are becoming a culture of their own - a third culture (Ward, 1984:247).

DELIMITATIONS

While most of the construct validity findings of the research are drawn from a broad sampling of North Americans, the criterion related findings are drawn from a sampling of the missionary expatriate community. Therefore, the final conclusions of the study cannot be generalized beyond the missionary population.

The missionary sample has a limited range. It is limited by the fact that the missionary subjects are already screened for intercultural success. The sample is further limited in range because a large number of the subjects have persevered over several years in their career choice. Those who were screened out and those who resigned early in their career are not available as subjects for the study. Therefore, the study is delimited to a sample of the missionary population that is skewed towards intercultural success.

SUMMARY

The research seeks to produce an empirically-based instrument that will measure competency for intercultural interaction. Currently, the personnel directors of mission agencies are able to assess both the task competency and the mental health of a missionary candidate but have no way to systematically measure several other indicators predictive of intercultural effectiveness.

An Intercultural Competency Scale will provide the means for collecting needed data on the missionary candidate, and improve decision-making in selection and training. More information must be made available to help decision-makers avoid selecting the wrong people and failing to prepare them adequately for effectiveness overseas.

II

PRECEDENT LITERATURE

The purpose of the research is to develop an instrument designed to measure readiness for intercultural interaction. The instrument is grounded in precedent research which identifies predictive indicators of intercultural effectiveness and is related to an external performance criterion demonstrating intercultural effectiveness. Consequently, the precedent literature reviewed in this chapter is divided into three topics: intercultural effectiveness, predictive indicators of intercultural effectiveness and, principles of test development.

INTERCULTURAL EFFECTIVENESS

Intercultural effectiveness is the positive outcome of an overseas assignment. The nature of that positive outcome however, has been an evolving concept in the field of intercultural relations. Historically, intercultural effectiveness was spoken of in terms of "adaptation" which carried various connotations such as "coping with culture shock" or "satisfaction with the overseas assignment." Adaptation was usually measured using an expatriate self-report. However, adaptation did not deal with how productive the person had been with reference to the host country people or the task (Ruben, Askling and Kealey, 1977). Later, completion of the task and transfer of skills to host country people were

added to the concept of intercultural effectiveness by Ruben (1977). Recently it has become evident that adaptation, task completion and transfer of skills are distinct components. It is possible for a person to be well adjusted to living in the overseas environment (adapted) without being effective overall in task completion or transfer of skills (Kealey and Ruben, 1983; Hawes and Kealey, 1979).

Tucker, in his overview of the literature concluded that a "criterion problem" existed: the concept of effectiveness lacked both definition and means for measurement (1974). Benson's discussion (1974) of the literature listed components of intercultural effectiveness that had been identified in seven different studies (Harris, 1973; Hautuluoma and Kaman, 1975; Tucker, Raik, Rossier, and Uhes, 1973; Mumford, 1975; Yellen and Hoover, 1973; Ruben and Kealey, 1979; Hawes and Kealey, 1980).

Some studies focused more on personal characteristics of the expatriate and less on outcomes. For instance, some components listed were strength of personality (Harris, 1973), equanimity in the face of criticism (Mumford, 1975) and imperviousness to depression (Hautuluoma and Kaman, 1975). Other studies listed components which focused more on outcomes. Some components listed were social participation (Tucker, Raik, Rossier, and Uhes, 1973), psychological adjustment (Ruben and Kealey, 1979) and family stability (Yellen and Hoover, 1973). However, the lists indicate the

difficulty of separating personal characteristics from performance in the field.

A study of predictors for missionary effectiveness used four categories of maturity as criteria for success: personal, emotional, social and spiritual (Britt,1983).

Hawes and Kealey, in their extensive study of Canadian assistance technicians found that the concept of intercultural effectiveness was comprised of three parts: (1) intercultural interaction and training, (2) professional effectiveness, and (3) personal/family adjustment and satisfaction (1979). The first, the intercultural interaction and training component was measured by the following indicators:

- interaction with Nationals
- local language
- non-verbal communication
- factual knowledge
- concern with training
- tolerance and openness (1979:162).

The second, the professional effectiveness component was measured by the following indicators:

- technical background and qualifications
- commitment to job
- adaptation of techniques to local conditions (1979:162).

The third, the personal/family adjustment and satisfaction component was measured by the following indicators:

- enjoyable activities
- satisfaction with environment
- few complaints
- no stereotyping of Nationals
- acceptance of conditions
- adjustment as family unit (1979:162).

The Hawes and Kealey study was significant because it identified behaviorally-based indices of intercultural

effectiveness. In summary, these indices provide the external performance criteria against which effectiveness can be measured objectively. Accurate criteria for effectiveness are critical when attempting to measure predictive competencies. Klemp has observed the following:

The competencies that are identified and measured are only as useful as the performance criteria to which they lead (1979:43).

PREDICTIVE INDICATORS OF INTERCULTURAL EFFECTIVENESS

There is a need for an assessment instrument that will measure competency in areas predictive of intercultural effectiveness. Klemp defines competency as a:

. . . generic knowledge, skill, trait, self-schema, or motive of a person that is causally related to effective behavior referenced to external performance criteria (1979:42).

The search for competencies predictive of intercultural success or effectiveness has been on-going. Furthermore, the complexity of the task has made it difficult. Research attempts have been plagued by a lack of clear definition of intercultural effectiveness, small subject samples and the large variety of situational variables faced by the expatriate. Finally, much of the earlier research which attempted to correlate personality traits with intercultural effectiveness was disappointing (Stein, 1966; David, 1972; Dinges, 1983; Kealey and Ruben, 1983).

Recently however, the research findings have been more hopeful. In their 1983 review of the literature, Kealey and Ruben discuss a variety of research on the topic. The

findings are grouped according to four categories of intercultural contact: the Peace Corps volunteers, overseas businessmen, technical assistance personnel, military personnel (1983). Kealey and Ruben conclude that a basis now exists for developing broad selection criteria for intercultural effectiveness. Support for this position was based upon the following:

(1) a recognition of a significant convergence among writers and researchers as to the key 'predictors' of cross-cultural success; (2) development of behavior-based approaches to the assessment of personality attributes; and (3) the possibility of developing a usable, generalizable classification of situational factors (1983:165).

The authors found total consensus in the literature (for the four groups studied) on the following six predictive indicators:

empathy
respect
interest in local culture
flexibility
tolerance
technical skill

Three out of four of the groups studied also identified the following predictors:

initiative
open-mindedness
sociability
positive self-image

The resulting profile is of a person:

. . . who is truly open to and interested in other people and their ideas, capable of building relationships of trust among people. He or she is sensitive to the feelings and thoughts of another, expresses respect and positive regard for others, and is nonjudgmental. Finally, he or she tends to be self-confident, is able to take initiative, is calm in situations of frustration and ambiguity, and is not rigid. The individual is a technically or professionally competent person (1983:165,166).

The profile describes an "ideal" expatriate. Although an ideal expatriate does not exist, the profile provides helpful categories for screening and training expatriate personnel.

The indicators are not distinct. Most are social skills and attitudes, which, given the complexity of human beings, tend to overlap or interface in many different ways. Therefore, any list is arbitrary. The following presentation of predictive indicators will begin with the ten indicators which have the most consensus in the literature. Other indicators considered to be important will be added at the end.

EMPATHY

Empathy is "the imaginative intellectual and emotional participation in another person's experience" (Bennett, 1979:418). Sarbaugh's two-fold definition is more specific: the "sensitivity to cues in a situation" and the "ability to take the other's role" (1979:128).

Brislin found empathy to be the most frequently cited indicator of intercultural effectiveness. Empathy

facilitates intercultural interaction in two ways: (1) it helps a person understand how he or she is being perceived and (2) judge what information the other person possesses in order to communicate more appropriately (1981).

As early as 1969, Peace Corps trainers listed an increase in empathy as an essential learning objective for Peace Corps volunteers (Wight and Casto, 1969). In Hwang, Chase and Kelly's study of American, Chinese and Chinese American students, empathy was identified by all three groups as an important factor in communication effectiveness. Behavioral evidences of empathy include listening carefully to what others are saying, being sensitive to the needs of others and, understanding another's point of view (1980). Hawes and Kealey equated "a good listener," with the ability to "accurately perceive the needs and feelings of others" and identified it as a critical predictor of intercultural effectiveness (1979:167).

RESPECT

To respect a person is to sense the worth of that individual. Hawes and Kealey added a behavioral dimension to respect by defining it as a "response to others which helps them feel valued." (1979:167)

Helping others feel valued enhances reciprocity and intercultural interaction. Hawes and Kealey identified respect as a critical predictor of intercultural effectiveness (1979).

INTEREST IN OTHER CULTURES

Interest in people from other cultures facilitates an understanding of their values, customs and beliefs.

Gudykunst and Kim explain how knowledge of the other culture assists the expatriate to function:

Our knowledge of the stranger's culture and of how it is different from and similar to our own has a direct impact on our interpretations and predictions of their behavior. If we know nothing about the stranger's culture, it is highly probable we will make inaccurate predictions and interpretations of their behavior (1984:195).

Hawes and Kealey found a "sensitivity to local realities, social political or cultural" to be critical predictor of effectiveness (1979:167). Also related to the category of interest in other cultures are the findings of Yellon and Hoover. They identified intellectual curiosity as predictive indicator of intercultural success (1973, in Kealey and Ruben, 1983).

FLEXIBILITY

Hawes and Kealey identified flexibility, or "the flexible response to ideas, beliefs or points of view of others" as predictive for effectiveness (1979:167). Flexibility permits the expatriate to take on the role of a learner without becoming judgmental and alienated.

Britt's study showed that missionaries who scored moderately high on the controlled end of the Sixteen Personality Factors' "Undisciplined versus Controlled" measure were more successful overseas. However, those who scored at the extremes were less successful indicating that

they tended to be less flexible. The findings showed that the effective missionary was able to control himself or herself without being excessively rigid (1983).

TOLERANCE FOR AMBIGUITY

Brislin defines a tolerance for ambiguity as the "ability to think about problems and issues even though all facts and probable effects of decisions are not known" (1981:55). Gudykunst and Kim add a behavioral dimension to their definition: "the ability to deal successfully with situations, even when a lot of the information needed for interaction is unknown" (1984:196).

An expatriate with a tolerance for ambiguity avoids much of the discomfort created by strange behavior in unfamiliar situations. Feeling comfortable in a strange situation decreases the need to withdraw from interaction; interaction which is necessary for effectiveness.

Gudykunst and Kim report that the expatriate who has a tolerance for ambiguity is more likely to accomplish the task and interact effectively with host country people. Furthermore, such people are likely to respond with curiosity and delight to unpredictable and uncategorizable events (1984).

Budner (1962) created a scale measuring the tendency to perceive ambiguous situations as threatening. He described these situations as new situations with no familiar cues, complex situations with many stimuli, or contradictory or unsolvable situations (Barna, 1983). Some of the items

in Budner's scale require people to identify how they feel about living in "a foreign country for a while," going to a party where "most of the people are complete strangers," and making "important decisions . . . based upon insufficient information" (Budner's scale in McGonigal, 1971:185).

Related to a tolerance for ambiguity is another of Hawes' and Kealey's findings. These authors found that remaining "calm in the face of antagonism and hostility" is predictive of effectiveness (1979:167). The capacity to remain calm is probably facilitated by a tolerance for ambiguity.

TECHNICAL SKILLS

In their profile of the effective working individual overseas, Hawes and Kealey make the assumption that the advisors in their sample had the professional qualifications to do the job. The qualifications included:

appropriate educational background, training, and experience, along with commitment to the overseas job. The individual should understand how professional and technical skills must be modified to fit local conditions and constraints (1979:168).

The technical skill required for a task overseas differs depending upon the job to be done. Accomplishing the task in another culture is generally considered to be more difficult because of the many other adjustments that must be made to accommodate to cultural differences (Brislin, 1981). Consequently, basic technical ability is very important.

However, an excessive task orientation may hinder interaction with host country people: interaction which is

often required to transfer skills. In their study of technical assistance advisers, Ruben and Kealey found that some advisers completed their task but were unable to share the knowledge with host country people. Others, perhaps less technically skilled, both completed the task and shared the knowledge. Ruben and Kealey made the following recommendation in light of their finding:

Perhaps individuals who are excessively task-oriented, for example, are not the best candidates to work with nationals in developing countries, (even though this orientation) would be ideal for positions in more technologically-oriented cultures (1979; quoted in Brislin, 1981:62).

A distinction should be made between task orientation and technical skill. Task orientation refers to a high commitment to getting the task completed whereas, technical skill refers to the capacity to do the job well.

OPEN-MINDED

Open-mindedness represents a cluster of thought processes and attitudes that influence intercultural effectiveness. Open-mindedness implies the capacity to change or adapt one's thinking and attitudes so as to respond to others in more appropriate ways. Open-mindedness was identified by Maretzki (1965), Schwarz (1973), and Gudykunst, Wiseman and Hammer (1977) as predictive of overseas success. Related to open-mindedness are the following predictive indicators of intercultural success: broad category width, open stereotypes, nonjudgmentalism, freedom from prejudice and, low ethnocentrism.

Broad Category Width

Thinking requires the formation of categories. Bruner defined a category as "a set of specifications regarding what events will be grouped as equivalent" (1957:133). Bruner, Goodnow and Austin identify five functions of categorization, two of which are reducing a highly complex environment to a manageable size and predicting appropriate or inappropriate behavior in advance (1956). Bruner and Rodrigues went on to show that individuals tend to be consistently broad, medium, or narrow in their category widths (Pettigrew, 1959). Pettigrew then developed a paper and pencil category width scale containing 20 items. The following item is illustrative of the type of items in the scale:

It has been estimated that the average width of windows is 34 inches. What do you think:

a. is the width of the widest window . . .

- | | |
|---------------------|------------------|
| 1. 1,363 inches (3) | 3. 48 inches (0) |
| 2. 341 inches (2) | 4. 81 inches (1) |

b. is the width of the narrowest window . . .

- | | |
|------------------|------------------|
| 1. 3 inches (2) | 3. 11 inches (1) |
| 2. 18 inches (0) | 4. 1 inch (3) |

(Pettigrew, 1959:534)

Pettigrew also found that individuals tended to be consistently broad, medium, or narrow in their category widths (1959).

Detweiler concluded that narrow categorizers tend to use their own frame of reference in evaluating people from other cultures, often assigning incorrect meanings to their

behavior. Conversely, broad categorizers are more accepting of different meanings for behavior and tend to withhold their evaluations (1975,1980). Detweiler also found that Peace Corps volunteers who were broad categorizers were less likely to terminate early (Brislin, 1981).

The category width scale that Detweiler developed consisted of several sets of nonsense figures with a cue figure for each set. The subject was asked to indicate how many of the figures that followed were equivalent enough to be placed in the same category as the cue figure (1978).

Broad categorizers are open-minded in that they are accepting of different meanings for behavior and therefore are less likely to make negative inferences about host country people.

Open Stereotypes

Stereotyping is a categorization process. Brislin defines stereotyping as "any categorization of individual elements concerned with people which mask differences among those elements" (1981:44). The term was first used by Lippman who referred to stereotypes as "pictures in our heads" (1936). As categorization is essential to thinking, so, stereotyping is essential to thinking about people.

Sarbaugh observes:

Ideally, we would take into account the characteristics of each individual with whom we communicate; however, we often are forced to base our first predictions on some kind of general stereotype of the other person (1979:17).

It isn't the use of stereotypes that hampers intercultural

effectiveness, but the degree to which a stereotype is "closed" to modification. Brislin (1981:55) quotes Scott on "open" and "closed" images (stereotypes):

An image (stereotype) is "closed" to the extent that the person regards the attributes included in it as completely defining the object . . . The more "open" the image, the more is the person willing to entertain the possibility that essential features of the object have not yet been recognized by him (1965:81).

Jones makes the following comments on the consequences of a closed stereotype:

The problem is that once we have categorized or labeled someone, we tend to reify the label, to treat the word as if it captures the true essence of all that person is, when in fact the label at best designates the person's standing on one of thousands of personal attributes (1982:52).

Moving into a new culture requires that expatriates assimilate and use many new pieces of information. People with "open" stereotypes will adjust their categories to accommodate new information. In this sense such expatriates are open-minded. However, expatriates who rigidly adhere to inaccurate (closed) stereotypes and continue to "think-as-usual" will persist in making incorrect judgments about the host country people.

Barna listed preconceptions and stereotypes as a major stumbling block to intercultural communication (1973).

Nonjudgmental

Ruben called nonjudgmentalness an "interaction posture." In so doing he focused on the positive behavioral aspects of the predictor. He defined an interaction posture as "the ability to respond to others in a descriptive,

non-evaluating, and nonjudgmental way" (1976:340).

The capacity to distinguish between description, interpretation and evaluation has long been understood as characteristic of the effective communicator. The ability to first distinguish between evaluation and description and second to avoid evaluating becomes even more critical overseas where the behavioral norms are different. In another culture the possibility of misjudging is so much greater.

Nonjudgmentalness was identified as predictive of overseas success by Arensberg and Niehoff (1971), Ruben and Kealey (1979) and Gudykunst, Wiseman and Hammer (1977). Barna listed the tendency to evaluate or prejudge as a barrier to intercultural communication (1972).

Freedom from Prejudice

Ethnic prejudice was defined by Allport as:

. . . an antipathy based upon a faulty and inflexible generalization. It may be felt or expressed. It may be directed toward a group as a whole, or toward an individual because he is a member of that group (1958:10).

Ethnic prejudice is a stereotype (generalization) that is both closed (inflexible) and negative (antipathy). Furthermore, it is based on false information. Discrimination is the behavioral counterpart to prejudice. Gudykunst and Kim state that "discrimination involves behaving in such a way that members of an out-group are treated disadvantageously" (1984:100). Allport held that any prejudicial attitude generally tends somewhere, somehow to express itself in action (1958). Consequently, highly prejudiced

expatriates will tend to discriminate against host country people while using faulty images to judge their motives. Such attributions lead to misunderstanding and alienation.

Low Ethnocentrism

Ethnocentrism refers to the belief that one's own cultural group is superior to others. Gudykunst and Kim describe ethnocentrism as follows:

. . . we tend to view our own cultural values and ways of doing things as more real, or as the "right" and natural values and ways of doing things (1984:92).

The result of such an attitude is the tendency to interpret and evaluate all cues from host country people in terms of one's own cultural perspective. Alternative interpretations for host country behavior are not considered and therefore, it is virtually impossible to understand the other culture (Gudykunst and Kim, 1984).

In a related study, nonethnocentrism was identified as predictive of intercultural effectiveness by Gudykunst, Wiseman, and Hammer (1977).

Rokeach found that the degree of perceived similarity of an out-group determined the degree of acceptance or rejection of the same group (1950). Acceptance led to positive feelings and a willingness to interact with the out-group that was similar. Presumably, a low level of ethnocentrism coupled with some point of perceived similarity in the host culture will enhance interaction.

The above thought processes relating to open-mindedness (broad category width, open stereotypes, nonjudgmentalism,

freedom from prejudice and low ethnocentrism) have all been shown to influence intercultural effectiveness. They each represent a type of receptivity critical to intercultural interaction.

POSITIVE SELF-IMAGE

A positive self-image is the belief and feeling that one is a worthwhile and capable human being. Brislin described the role of an expatriates' self-esteem in the intercultural context in the following way:

In cross-cultural contact, people will inevitably meet stresses and strains as they attempt to complete their work and to form relationships with others. People with low self-esteem have a tendency to blame difficulties on themselves too frequently and with too much vigor: "Since I am not worthy of respect, people are ignoring me or are purposefully making things hard for me" (1984:57).

Several studies have shown that increased self-esteem is related to increased tolerance of out-groups (Stephan and Rosenfield, 1978; Ehrlich, 1973; Robinson and Snyder, 1965).

A positive self-image has been identified as predictive of intercultural effectiveness by Maretzke (1965) and Hawes and Kealey (1979). Hawes and Kealey found that the predictive indicator of self-identity/assertion was composed of three components:

flexibility - one of the first to act, make suggestions or propose a plan of action.

confidence - expresses and demonstrates self-confidence with regard to personal goals and judgement.

frankness - frank and open in dealing with others.
(1979:167).

Thus, initiative, confidence, and frankness are the behavioral indices of a strong sense of identity (1979). Hawes and Kealey observed the following about frankness:

We expected a negative prediction for frankness-related items, i. e., that it is better to be tactful. However, in looking at the overall profile, it seems plausible that these items measure honesty and genuineness in relationships. It is excellent to be frank -- provided you are also demonstrating other critical aspects of the profile, namely the six interpersonal skills (1979:170).

Arensberg and Niehoff (1971) identified honesty as a predictor of intercultural success. Schwarz (1973) and Guthrie and Zektick (1967) both identified initiative as a predictor of intercultural success.

SOCIABILITY

Sociability refers to the inclination to be friendly and warm towards others. It includes the capacity to make contact with others and make them feel comfortable. Friendliness builds trust, breaks down suspicions and opens up experiences that enhance understanding.

Sellitz et. al. (1963) and Pool (1965) showed that intercultural contact and interaction contributed to satisfaction in expatriates. Since "satisfaction" relates more closely to adjustment than to over-all effectiveness, the findings of these two studies cannot be generalized. However, sociability (or a closely related characteristic) was identified as a predictor of intercultural success in the

following studies:

- ability to establish interpersonal relationships
(Hammer, Gudykunst and Wiseman 1977 and 1978)
- friendliness
(Mezingo, 1974)
- sociability
(Yellen and Hoover, 1973)
- outgoing, relationship building
(Hawes and Kealey, 1980)
- personal warmth
(Maretzki, 1965)
- extroversion
(Guthrie and Zektick, 1967)

Hawes and Kealey strongly emphasized the importance of relationship building:

The single most meaningful result of the study, then, is that there is something the individual can do to facilitate overseas effectiveness, whatever be the external barriers to success. It is to develop the capacity to make contact with local people using the interpersonal skills identified (1979:190).

POSITIVE REALISTIC PRE-FIELD EXPECTATIONS

The person who looks forward to the foreign assignment as a favorable, but challenging prospect can be said to have positive realistic pre-field expectations. Expectations that are too idealistic can create so much dissonance and disappointment that the newly arrived expatriate is unable to adjust or become interculturally effective.

Positive realistic pre-field expectations was the third most important predictor of intercultural effectiveness identified by Hawes and Kealey (1979). Tucker and Benson found that expectations were the best predictor of success in their study (1979).

Other related research has shown that self-efficacy expectations influence the career decisions and achievements

of both men and women (Bandura, 1977; Betz and Hackett, 1981; Lent, Brown and Larkin, 1984). Self-efficacy expectations are "beliefs about one's ability to successfully perform a given task or behavior" (Lent, Brown and Larkin, 1984:356). Preliminary research shows that the strength of self-efficacy expectations is related to degree of persistence and success in college major and career choices (Lent, Brown and Larkin, 1984).

PERSEVERANCE

Perseverance is persistence in a course of action in spite of the difficulties and obstacles encountered. Entering a new culture presents the expatriate with many ambiguous situations that can be perceived as difficult. The person who lacks some degree of perseverance will find it easier not to persist in learning the customs, making contact with host country people, learning the language, adjusting to different living conditions and working at his or her assigned task. Dunn reports that 30 % of the employees sent overseas fail to adjust and must return home early (1980).

In his study of missionaries, Britt found that the "Perseverance-Discipline" variable correlated at the .05 level with success in the field (1983:210). Harris showed that perseverance was an indicator of high success Peace Corps volunteers distinguishing them from the early terminator. (1973).

ROLE FLEXIBILITY

Role flexibility may be defined as the capacity to shift roles. A role is a set of "shared expectations" about how one is to behave in certain situations (Sarbaugh, 1979:42).

Role flexibility is especially important in the successful completion of a task where an expatriate is working closely with host country individuals. The capacity to shift between teacher and learner roles or leader and follower roles is critical in the transfer of skills to host country people. Brislin (1979) and Finley (1979) have shown role flexibility to be an important predictor for intercultural success.

RISK-TAKER

Risk-takers are people who are willing to place themselves in situations that are unknown or uncertain and that may involve some hazards or loss. Such people tend to be adventurous and enterprising.

In a discussion on why some people escape culture shock, Barna describes the risk-taker in the following way:

. . . some people react with anticipation and pleasure to newness and strangeness instead of with anxiety, which seems to aid coping and put less stress on the body. An additional bonus is that when there is willingness to expose oneself to the new and different, conditioning will occur so that gradually more and more ambiguity can be tolerated (1983:41 based on Pearce, 1977:31).

Hawes and Kealey found that risk-taking was related to

intercultural success. They argue that going overseas is an adventure and demands an "adventuresome spirit" (1979:171).

LANGUAGE SKILLS

The capacity to learn another language well is not emphasized as a predictive indicator in much of the intercultural literature. The reason for this apparent lack in emphasis may reflect the widespread use of English around the world, North American monolingualism, or, merely the fact that such an obvious indicator is to be assumed.

However, the ability to speak the language of the host country people is one criterion of intercultural effectiveness in a few research studies (Hautuluoma and Kaman, 1975; Mumford, 1975; Yellen and Hoover, 1973). Kealey and Ruben list language skills as one of the criteria considered relevant to overseas adjustment/success for the business employee (1983). Nishida found that English speaking and listening skills predicted interactional effectiveness for Japanese university students in the U. S. (1985).

Missionaries are often required to spend from several months to two years in language learning in-country before being assigned to a task. Many mission agencies administer the Foreign Language Aptitude Test as part of their screening protocol. Language learning is generally viewed as a major challenge by the missionary. Foreign language ranked highest in tension producing factors in Iwasko's study of missionaries (1984).

Brislin points out that the expatriate who does not

speak the language is limited in his or her interaction with host country people and capacity to understand the culture (1981:64).

In summary, all of the above predictors show some evidence of being predictive of intercultural effectiveness. However, a systematic way of assessing the predictors has yet to be found.

TEST DEVELOPMENT PRINCIPLES

The development of an assessment instrument designed to measure competency for intercultural interaction requires an understanding of test development principles. This section reviews steps in predictive research. Content validity, construct validity, and criterion validity, three critical considerations in test development are also reviewed.

STEPS IN PREDICTIVE RESEARCH

Cronbach outlines eight steps in traditional prediction research:

1. Analyzing the job to form hypotheses as to characteristics making for success or failure.
2. Determining that a study of reasonable cost will produce adequately persuasive evidence.
3. Choosing (or devising) tests to measure the listed characteristics.
4. Administering the tests to workers already on the job or new applicants.
5. Collecting reports on the adequacy of those workers.
6. Analyzing how test scores and information on the workers' background relate to success on the job.

7. Choosing an operational success plan.
8. Compiling later data, regularly or periodically,
to check on the continuing soundness of the plan.
(1984:359)

Gronlund introduces eight basic steps to test construction which extend Cronbach's third step above. Gronlund's test construction steps are as follows:

1. Determining the purpose of testing
2. Building a table of specifications
3. Selecting appropriate item types
4. Preparing relevant test items
5. Assembling the test
6. Administering the test
7. Appraising the test
8. Using the results (1976:136)

CONTENT VALIDITY

Kaplan and Saccuzzo define validity as the "agreement between a test score or measure and the quality it is believed to measure" (1982:117). Validity also refers to the usefulness of test scores. Validity, used in this sense, relates the test scores to their application. Therefore, the validity of a test means little unless it is referenced to the context in which it will be used (Ghiselli et. al., 1981).

Content validity refers to the amount of agreement between the test and a representative sample of the subject-matter under consideration (Gronlund, 1976).

Nunnally identifies two major standards for ensuring content validity. The test should include a representative sample of items from the content area and the use of responsible test construction methods (1978). Ensuring content

validity is essentially a judgment based upon logic. A reliance upon judgments made by several experts in the content field help to ensure content validity (Ghiselli et. al, 1981).

CONSTRUCT VALIDITY

The word "construct" refers to a quality that has to be inferred from some observed behavior. In other words, a construct is a way of organizing and explaining that which has been observed (Cronbach, 1984).

Ghiselli et. al. assert that construct validity must begin with a basic theoretical concept. Theory gives meaning to a group of observations that function together statistically (1981). Kaplan and Saccuzzo have the following to say about the establishment of construct validity:

Construct validation involves assembling evidence about what the test really means. . . . Over a series of studies, the meaning of the test gradually begins to take shape. Construct validation is an on-going process, similar to amassing support for a complex scientific theory. No single set of observations provides crucial or critical evidence (1982:130).

Construct validity is demonstrated by convergent evidence in which the test in question correlates with other tests or assessments claimed to measure the same quality. Divergent evidence is also needed for construct validity. Factor analyses showing that structures are distinct within the test or between tests also support construct validity (Nunnally, 1978). Pretesting and posttesting comparisons of scores can indicate support for both content and construct

validity if the mediating instruction presented content similar to the test content (Gronlund, 1976).

CRITERION RELATED VALIDITY

According to Gronlund, criterion related validity refers to the extent to which "test performance is accurate in predicting some future performance or estimating some current performance" (1976:102). Thus, criterion related validity is predictive. "Predictive" is used here in its broadest sense to refer to:

. . . functional relations between an instrument and events occurring before, during, and after the instrument is applied (Nunnally, 1978:88).

Predictive validity based upon current performance criteria is often termed "concurrent validity." Predictive or concurrent validity is determined by the level of correspondence between test scores and performance criteria as measured by correlation coefficients. Tests with predictive validity for certain performance criteria can lead to wiser decisions about personnel selection and training. The higher the correlation (known as the validity coefficient) between the two measures, the more predictive and useful is the test.

Interpretation of a validity coefficient is determined by the extent to which the test indicates possible improvement in the quality of people selected (Nunnally, 1978). Consequently, tests with lower validity coefficients can be very helpful if they produce even modest improvements in

personnel selection. Nunnally makes the following observations about modest correlations:

In most prediction problems, it is reasonable to expect only modest correlations between a criterion and either an individual predictor test or a combination of predictor tests. People are far too complex to permit a highly accurate estimate of their proficiency in most performance-related situations (1978:90).

The achievement of even a moderate level of criterion related validity does present several challenges. Definition of the predictive indicators and performance criterion require precedent research. Once the performance criteria have been identified, gathering data on performance levels in the field, where few controls exist, can be difficult. Problems in the rating system can emerge. Rating forms may not be clear, the criteria insufficiently developed, and raters may be too generous, biased, or widely divergent in their perceptions. The test itself may not be sufficiently well developed to show predictive validity. Finally, the sample from which the performance data were gathered may be too restricted in range. Cronbach had this to say about the restricted range problem:

If applicants who are poor prospects are eliminated before the check on test-criterion relations - a low correlation within the surviving group may indicate that the test could have identified the unqualified (1984:363).

A concurrent validity coefficient therefore, tends to underestimate the predictive power of an instrument. However, in spite of the many problems involved, concurrent validity studies are often still the most feasible due to the length of time required for long-term predictive studies.

SUMMARY

An intercultural competency scale predictive of overseas success requires a grounding in three fields of knowledge. First, items in the scale must be based upon indicators in the literature that have been identified as predictors of intercultural effectiveness. Second, a clear definition of intercultural effectiveness is needed to provide the performance criteria against which to evaluate the test. Third, sound test development principles are necessary to guide the development of the test and increase the probability of the instrument's predictive power.

III

RESEARCH DESIGN AND METHODOLOGY

The purpose of this study is to build a criterion related questionnaire that will assess a missionary candidate's competency for intercultural interaction. The instrument will be useful for screening potential missionary candidates and for identifying indicators that can be improved through training. The original version of the instrument, The Intercultural Competency Scale, the ICS (Form A), was revised three times: the ICS (Form B), the ICS (Form C), and the ICS (Form D).

LITERATURE ANALYSIS: IDENTIFYING PREDICTIVE INDICATORS

The identification of critical indicators predictive of intercultural effectiveness was the first task in building the Intercultural Competency Scale. Twenty-five indicators that showed some predictive power for intercultural effectiveness were identified from the precedent research in the field. Only those predictors that were well-researched and/or were commonly accepted by intercultural trainers were included in this study. These 25 indicators were defined and arranged into the following five factors:

I. Tolerance

- A. Tolerance for Ambiguity
(Kealey and Ruben, 1979:19)
- B. Openness of Stereotypes
(Gudykunst and Kim, 1984:194)
- C. Freedom from Ethnic Prejudice
(Gudykunst and Kim, 1984:197)
- D. Reduced Ethnocentrism
(Gudykunst, Hammer and Wiseman, 1977:424)
- E. Nonjudgmental
(Ruben, 1976:340)

II. Sensitivity

- A. Empathetic
(Hwang, Chase, Kelly, 1980:76)
- B. Shows Respect
(Hawes and Kealey, 1979:173)
- C. Good Listener
(Hawes and Kealey, 1979:173)
- D. Interest in Other Cultures
(Kealey and Ruben, 1983:165)
- E. Sociable
(Kealey and Ruben, 1983:165)

III. Security

- A. Positive Self-Image
(Kealey and Ruben, 1983:165)
- B. Shows Initiative
(Hawes and Kealey, 1979:190)
- C. Calm in the Face of Hostility and Antagonism
(Hawes and Kealey, 1979:169)
- D. Open and Frank
(Hawes and Kealey, 1979:169)
- E. Positive, Realistic Pre-Field Expectations
(Hawes and Kealey, 1979:169)

IV. Flexible Perspective

- A. Flexible Towards the Beliefs and Ideas of Others
(Hawes and Kealey, 1979:167)
- B. Enjoys Problem-Solving
(Kohls, 1978:5)
- C. Broad Categorizer
(Detweiler, 1980:289,290)
- D. Good Inquiry Skills
(Kealey and Ruben, 1983:166)
- E. Good Observation Skills
(Gudykunst, Hammer, and Wiseman, 1977:424)

V. Enterprise

- A. Interest in Languages
(Tucker et.al. 1973:240)
- B. Interest in New Skills
(Kohls, 1978)
- C. Role-Flexibility
(Brislin, 1979:59-60)
- D. Interest in New Settings
(Kealey and Ruben, 1983:166)
- E. Interest in People Who are Different
(Kealey and Ruben, 1983:166)

(See Appendix A for the definitions)

These 25 indicators provided the guidelines for the 50 questionnaire items that were created for the ICS (Form A).

ORIGINATION OF THE ITEMS

Instruments that measure intercultural communication were investigated for items that could be used as models for the questionnaire. Hawes' and Kealey's research instrument was very helpful (1979:205-245). Also very useful was Ward's suggested self-assessment questions (1984:258-260) based on the categories taken from Redden and Powell's Culture Shock Inventory. Kohls' Cross-Cultural Preparedness Rating Form (1978) and the Profile of Cross-Cultural Readiness from the U. S. Naval Amphibious School (n. d.) were also instructive. Other instruments were explored, primarily psychological instruments with strong validity and reliability records. These yielded insights into possible item formats and scoring schemes.

Based on the foregoing, some 70 items were created for the instrument, ensuring that there were at least two or more possible items per indicator. The newly created items

were discussed with two expert intercultural trainers. Their recommendations on content or format changes were useful in strengthening the instrument's content validity. Fifty of the 70 items were chosen and refined for the Intercultural Competency Scale (Form A). A five-option Likert scale was used to measure each item: Strongly Disagree, Disagree, Not Sure, Agree, and Strongly Agree.

Four people were asked to complete the questionnaire. They were told to ask about any items that were not clear to them. They were also instructed to write their comments and reactions in the margin. The results were used to improve the wording of the items. (See Appendix B for the final version of the ICS (Form A).)

A SCORING SYSTEM

A score of 250 was possible on the ICS (Form A). The items were scored on a 1-5 scale with Strongly Disagree rated as a '1' unless the item was designated to be scored in reverse (which was true of 22 items). In those instances, Strongly Agree was rated a '1' and Strongly Disagree was rated a '5'. (See Appendix A for the reverse scored items.)

Given the fact that the instrument was to be used as a screening and diagnostic tool, there arose a concern about the tendency of subjects to choose the most socially desirable response (Nunnally, 1978). In order to recognize this tendency in a subject, a format and scoring system

of items based on an "obvious-subtle" continuum was designed.

One item for each indicator was designated as an "obvious" item and the second item for that indicator as a "subtle" item. The purpose of the "obvious" item was designed to be clear, or obvious to the respondent. The "subtle" item, on the other hand, (designed to measure the same indicator as its "obvious" counterpart), was created to be more obscure to the respondent in its purpose. Each subject then, would receive both an "obvious" and a "subtle" score. Too large a discrepancy between the "subtle" and "obvious" scores would indicate an attempt by the subject to project a more socially desirable image (or, perhaps, socially undesirable image) to the test administrator. In these situations the test administrator could be more cautious about the results because they were not altogether representative of the subject's real behavior and attitudes. (See Appendix A to distinguish the "obvious" from the "subtle" items in ICS (Form A).)

FIELD-TESTING THE INTERCULTURAL COMPETENCY SCALE (FORM A)

The Intercultural Competency Scale (Form A) was field-tested with 35 students who were enrolled in an intense three-week intercultural communications course in Hawaii conducted by a professor from Michigan State University.

ASSESSING CONTENT VALIDITY

The ICS (Form A) was administered as both a pretest and posttest in the course to serve as a preliminary check on its content validity for screening subjects for intercultural competency. The pretest and posttest subject scores were compared for change. Increased posttest scores would suggest a gain in understanding of intercultural concepts.

The instrument was also administered to an expert intercultural trainer to determine the instrument's ability to reflect his depth of knowledge and capacity to function well in an intercultural setting. This individual had not been involved in the creation of the instrument. The expert trainer's score provided both a rough check on the instrument's content validity and functioned as a control measure for the Hawaii sample. His reactions to the items were also solicited.

A CRITERION RELATED ASSESSMENT

The professor for the course in Hawaii, an expert intercultural trainer, ranked nine of the Hawaii sample subjects on his or her intercultural effectiveness. This ranking was done before the professor was told the aggregate subject scores. The rankings were based upon the professor's observations made both in the classroom and on the various field trips during the training period. Each ranking was then compared to the aggregate pretest scores on the ICS (Form A).

ASSESSING CONSTRUCT VALIDITY

The means of the "obvious-subtle" item pairs were compared for major differences that would indicate that they are not measuring the same indicator. Item pairs that showed a spread of 0.7 or more between means were identified for more careful consideration.

ASSESSING OTHER FACTORS THAT RELATE TO VALIDITY

Means and standard deviations were computed for each of the 50 items in order to assess the variability of each item. Those items with means that fell below 2.2 or above 3.8 were singled out for further consideration as were those items with standard deviations that fell below 0.6. A list of inadequately sensitive items was compiled using the above findings as well as comments of the people who completed the questionnaire. These items were considered carefully and only discarded when there seemed to be no way to repair them for productive use in the ICS (Form B).

REVISION OF THE ENTERPRISE FACTOR

In this stage of the analysis the structure of the Enterprise factor came into question. The indicators within the Enterprise factor had the least amount of research support of all 25 predictive indicators. The five indicators in question were as follows:

1. Interest in Languages
2. Interest in New Skills
3. Role-Flexibility
4. Interest in New Settings
5. Interest in People

The first and third indicators ("Role-Flexibility" and "Interest in Language") were well supported. The other three indicators from the Enterprise factor ("Interest in New Skills," "Interest in New Settings" and "Interest in People") were generally assumed by experts in the field and implied in the literature to be predictors for intercultural success but had less research precedent. Consequently, the Enterprise factor was re-evaluated.

Two major predictive indicators relating to the Enterprise factor had been observed in the literature. Those who functioned effectively overseas had an inclination towards adventure and they persevered. Effective expatriates were risk-takers who enjoyed the challenge of interacting with people whose life-style was vastly different from their own. Consequently, the indicator called "Interest in People Who Are Different" became "Adventurous in Relationships" and "Interest in Language" and "Interest in New Skills" were integrated into an indicator termed, "Experimental." The indicator, "Interest in New Settings" was renamed "Adaptable." All three found their focus in the tendency of the effective expatriate to be a risk-taker.

The second major indicator identified was perseverance. Effective expatriates did not give up quickly even in the face of many difficulties. Therefore, perseverance was integrated into the Enterprise factor. The indicators in

the Enterprise factor were changed as shown:

Initial Set

- A. Interest in Language
- B. Interest in New Skills
- C. Role-Flexibility
- D. Interest in New Settings
- E. Interest in People Who are Different

Revised Set

- A. Perseverance
(Britt, 1983:210)
- B. Role-Flexibility
(Brislin, 1979:59,60)
- C. Adaptable
(Kealey and Ruben, 1983:166)
- D. Experimental
(Taft, 1977)
- E. Adventurous in Relationships
(Hawes and Kealey, 1979:171)

(See Appendix C for definitions of the above indicators and their respective items.)

REVISION OF THE INTERCULTURAL COMPETENCY SCALE (Form A)

The ICS (Form A) revision was guided by the list of inadequately sensitive items (gleaned from an analysis of the Hawaii sample scores) and the reformulated Enterprise factor. Less effective items were repaired and some new items were created for the questionnaire. (See Appendix D for the ICS (Form B))

FIELD-TESTING THE INTERCULTURAL COMPETENCY SCALE (FORM B)

A sample of 462 subjects completed the ICS (Form B). Of that sample, 58% were male and 42% were female.

AGE DISTRIBUTION

The age distribution of the sample has been summarized:

17 - 25	years	48%
26 - 29	years	16%
30 - 39	years	24%
Above 40	years	11%

Subjects in the 17 to 29 age range composed 65% of the total sample. This group was an important field-test audience since most people who present themselves to mission agencies for foreign service fall within this age range. Today, however, mission agencies have been accepting increasing numbers of middle aged and retired persons for intercultural work. So it was also necessary to gather some data on subjects over 30 years of age.

GROUPS WITHIN THE SAMPLE

The total sample was composed of five major groups. These five groups have been summarized in Table 3.1. The first and largest group, the undergraduate and graduate students, were typical of the people who would be asked to complete the Intercultural Competency Scale in the missionary screening process. Many mission agencies have recruiters who visit colleges, universities and theological graduate schools in order to contact prospective missionary volunteers.

The second, third, and fourth groups, (personnel who have already been screened for intercultural work and those who are engaged in intercultural work) were representative of those who would be expected to complete the instrument as

TABLE 3.1 The Five Sub-Groups in the Sample Used to Field-Test the Intercultural Competency Scale (Form B)

1. Undergraduate and graduate students	n = 309
2. Missionary candidates (screened for intercultural deployment)	n = 50
3. Corporate personnel (screened for intercultural deployment)	n = 22
4. Experienced intercultural workers	n = 32
5. Mixed Group: A few experienced intercultural workers; others no intercultural experience	n = 49
Total	<u>n = 462</u>

an assessment of learning needs for training purposes.

The fifth group was representative of both the experienced intercultural worker and those who might be traveling overseas on business from time to time.

A CONSTRUCT VALIDITY ASSESSMENT: AN ANALYSIS OF THE FACTORS IN THE INTERCULTURAL COMPETENCY SCALE (FORM B)

All 462 questionnaires were factor analyzed. Cronbach states that factor analysis has two roles. The first role is to:

. . . form clusters or composites so as to make the data compact enough to think about it and to smooth out sampling errors and other fluctuations (1984:238)

The second role, Cronbach states, is explanatory:

Factoring . . . indicates how many distinguishable kinds of individual differences enter the set of scores and how strong the influence of each such dimension is (1984:238).

In this study, factor analysis performed both roles. It organized the data into composites (factors), making it more

manageable and reliable; and, it revealed the relative strength of each factor.

To determine whether to do a confirmatory or an exploratory factor analysis, Pearson correlation coefficients were computed for all 25 pairs of "obvious-subtle" items representing each indicator. When the resulting correlations were determined to be lower than expected a decision was made to do an exploratory factor analysis.

The First Factor Analysis

The first factor analysis of all of the ICS (Form B) items employed a principal axis factoring procedure with an oblique rotation thus producing the simplest factor structure where the factors may be correlated with each other. This factor solution produced 19 factors.

The Second Factor Analysis

The second factor analysis of the ICS (Form B) data used only those items with a standard deviation of .864 or higher in order to minimize some of the distortion those items with lower standard deviations may have been causing within and between factors. Forty out of the 50 items were included in this second factor analysis.

The 10 items dropped were not discarded. They were kept in reserve with the thought that eventually some of them might be reworded in a way that would both, increase their standard deviations and allow them to load at higher levels with the same items in the future.

This second analysis used a principal axis factoring procedure with an orthogonal rotation which imposes the condition that the factors not be correlated with each other. This factor solution produced 15 factors.

The Third Factor Analysis

The third factor analysis was computed using even fewer items than the second factor analysis. Its purpose was to determine whether there were still some items with comparatively lower standard deviations that were not contributing to the factor structure. The standard deviations for all of the items in this third factor analysis were .949 or higher. Again, a principal axis factoring procedure with an orthogonal rotation was used. This factor solution produced 8 factors.

The Fourth Factor Analysis

The fourth factor analysis included several items that had been dropped for the second and third factor analyses. It appeared that the eight factors from the third factor analysis could be strengthened by adding some items that had loaded well on those same factors in earlier factor analyses. The criteria for any item to be reinstated in this fourth factor analysis was as follows: the selected item must have a standard deviation of .864 or above; a loading on a factor in an earlier analysis of .3 or above; and, it must have loaded with one or more companion items. A principal axis factoring procedure with an orthogonal

rotation was employed. This factor solution produced 11 factors.

The Fifth Factor Analysis

The fifth factor analysis included the same items and employed the principal axis factoring procedure with an orthogonal rotation but with the added specification that the items be forced into only nine factors. This was done to identify which items and factors were the least stable providing important information for the revision of the ICS (Form B).

A CRITERION RELATED ASSESSMENT OF THE INTERCULTURAL COMPETENCY SCALE (FORM B)

Within the sample of subjects ($n = 462$) who completed the ICS (Form B) was a group of 18 people who were educators working in Bangkok. A small criterion related study of the ICS (Form B) was conducted with this group. These 18 subjects completed the ICS (Form B) at the beginning of a five week graduate course in Culture Learning which was conducted in Bangkok. The professor, from Michigan State University, was an expert intercultural trainer. Most of the students had been involved in international education there for some time and were well-experienced in an intercultural context.

The aggregate scores on the ICS (Form B) were collected for the group at the beginning of the course. The professor also collected two sets of observations on each subject. In

the first set he rated the subjects in the following areas:

- Evidence of friendship with Thais (1-10 high)
- Evidence of class consciousness in Thai friendships
(Low, Medium or High)
- Level of being "Seasoned to the Third Culture"
(1 - 10 high)
- Level of being "Seasoned to Thailand"
(1 - 10 high)

The second set of observations related to how the subjects appeared to be perceiving their experience in the Thailand.

The three ratings were stated as follows:

- I'm an American overseas.
- I'm an American in Thailand
- I'm a human being among Americans and Thais.

All rated 1, 2 or 3 (3 = most descriptive)

The first perception, "I'm an American overseas" described the person who thought of himself or herself primarily as an American in an overseas environment, the particular environment being largely immaterial. There are many Americans all over the world who live out their lives in little American ghettos, preserving their American way of life and protecting themselves from the realities of the culture. "Overseas" is a general term; it can be anywhere for these people because the impact of the host culture upon them is so minimal.

The second perception, "I'm an American in Thailand," described the person whose primary identification was with America but who was also attempting to learn and appreciate the particular cultural context. It did make a difference that he or she was in Thailand and not somewhere else. That person attempted to integrate some Thai customs and Thai expressions into his or her life style.

The third perception, "I'm a human being among Americans and Thais," described the person for whom America simply supplied a history. This person was less concerned with preserving national distinctives and was more interested in enjoying the relationships that the new context afforded. Besides the above ratings the professor also included a confidence rating (1 - 10 high) indicating his level of confidence in making a judgment about each student. A comparison of the intercultural competency ratings with the scores on the ICS (Form B) afforded a preliminary criterion related assessment of the instrument.

REVISION OF THE INTERCULTURAL COMPETENCY SCALE (FORM B)

In the revision of the Intercultural Competency Scale (Form B) the seven most stable factors from the fourth factor analysis were as a basis for reorganization. These seven factors were assigned the following labels:

- I. Forthrightness
- II. Social Openness
- III. Cultural Perspectivism
- IV. Intercultural Receptivity
- V. Engagement
- VI. Approachable
- VIII. Social Confidence

Factor VII was not stable enough to include it in the revision, the ICS (Form C). (For factor definitions see Appendix E.)

A definite transition occurred within the structure of the instrument when it was subjected to the factor analysis. The ICS (Form B) factors consisted of sets of items that had

been suggested by the literature. In contrast, the ICS (Form C) factors (above) were suggested by the data. In naming the new factors in the ICS (Form C), it was critical that the factor name be suggested by the item set within the data. An attempt to find a fit between the indicators in the literature and the item set within the data could have resulted in inaccurate factor names.

Naming each new ICS (Form C) factor as accurately as possible was important for two reasons. First, the name defined the nature of any new items that were to be added to the factor. If the name did not capture the distinctiveness of the factor a new item created for that factor would not contribute to the reliability of the factor. Second, the name determined how that factor score would be interpreted. An inappropriate name could lead to a misinterpretation of factor scores. Therefore, one or two words were used to name each factor in an attempt to contain the main idea of the factor.

ADDITION OF NEW ITEMS

Where a factor consisted of only two or three items, new items were created (or old items were repaired) to fit the central thought of the factor. These additions ensured four to six items per factor. The ICS (Form C) contained 45 items, changing the total score possible from 250 to 225.

ADDITION OF NEW FACTORS

Three new factors, with representative items, were designed to replace those factors from the ICS (Form B) that did not persist as stable factors in the analyses. These factors were determined to be too prominent in the literature to drop. These three new factors were given the following labels:

Low Preoccupation with Difficulties
Positive Orientation
Enterprise

(For definitions of the above factors see Appendix E.)

ELIMINATION OF THE "OBVIOUS-SUBTLE" DISTINCTION

The "obvious-subtle" distinction between items that measured the same indicator was not supported by the data. Consequently, the "obvious-subtle" scoring system was abandoned in this revision.

DEMOGRAPHIC ITEMS ADDED

Certain demographic questions were appended to the ICS (Form C). This was done to facilitate the criterion related test of the instrument. It was projected that sex, age, years in another culture, strength of commitment to intercultural work (as measured by where the subject plans to be in one year and five years), and type of work might influence intercultural effectiveness ratings. At the end of the instrument the missionaries were asked to identify two colleagues who had highly effective relationships with nationals. The communication networks within the sample

were utilized to identify those missionaries who were particularly effective. (For demographic items appended to the ICS (Form C) see Appendix F.)

PILOT-TESTING THE ICS (FORM C)

Three missionary candidates and one missionary were asked to complete the questionnaire. In addition they were asked to explain why they had chosen to answer each item a certain way. The rationale they gave for each answer was recorded and analyzed. These explanations were useful in determining which items were likely to be misread or misunderstood. Several items were reworded in light of this information. (For the revised instrument, the ICS (Form C) see Appendix F.)

THE EXTERNAL CRITERION: THE FIELD PERFORMANCE RATING FORM

An external criterion was needed to test the concurrent validity of the ICS (Form C) as a predictor of intercultural success. The external criterion used for this study was a measurement of the intercultural effectiveness of missionaries on the field. Consequently, a Field Performance Rating Form was created as the external criterion measure. The Field Performance Rating form was sent to the field supervisors of those missionaries who completed the ICS (Form C).

THE COMPONENTS OF THE FIELD PERFORMANCE RATING FORM

Cronbach recommends the use of more than one performance criterion. He states:

In place of the single 'ultimate criterion,' it is more realistic and more illuminating to think of criteria of different kinds . . . The more criteria a test is compared against, the more light is shed on selection policy (1984:367).

Therefore, three criteria of intercultural effectiveness were selected from precedent research and used to build the Field Performance Rating Form.

The Field Performance Rating Form was based on the findings of Hawes and Kealey (1979). They divided intercultural effectiveness into three components: personal/family adjustment and satisfaction, professional effectiveness, and intercultural interaction and training (1979:156). Brislin labeled these components as: Psychological Adjustment, Task Effectiveness and Interaction Effectiveness (1981:54-55). All three categories are distinct and must be measured separately.

Kealey and Ruben (1983) observed that despite high correlations between psychological adjustment and intercultural interaction, it did not necessarily follow that psychologically adjusted expatriates will also be socially interactive with host country people. These authors cite Hawes' and Kealey's discovery that, although most personnel in their study were well adjusted, they were largely ineffective relating and transferring skills to hosts (1979). Thus, while it is possible that intercultural interaction

may be predictive of psychological adjustment, Kealey and Ruben concluded that the reverse cannot be supported (1983). Therefore, it was determined that all three components should be measured separately in this study.

PROCEDURE

The Field Performance Rating Form incorporated all three components. Each component was measured on a scale of 1-5 (Low to High). Accompanying the Field Performance Rating Form was a one-page summary of the protocol for the study. This summary was titled: "Information About this Study" and it was designed to help supervisors in the field who would be gathering the data and rating missionaries to do so correctly. (For the Field Performance Rating Form and the study protocol see Appendix G.)

FIELD-TESTING THE INTERCULTURAL COMPETENCY SCALE (FORM C)

The Intercultural Competency Scale (Form C) was field-tested with 489 subjects. Of that number, 317 were missionaries currently working in 30 different countries. Field performance ratings were collected for 268 of those missionaries. The remaining 172 subjects were missionary candidates who were in various stages of pre-field preparation. All 489 questionnaires were used for the factor analyses. Validity coefficients were also computed between the responses of the 268 missionaries on the questionnaire and their field performance ratings.

MISSIONARY SAMPLE

Five mission agencies gathered data on their missionaries for this study (see Table 3.2). Missions A, B and E gathered data on missionaries from several different countries. Mission A gathered data on missionaries from four different countries and each country had one rater. Missions B and E provided data from many different countries, consequently, many different raters were required. Both Missions C and D gathered data on most of their missionaries in one country. Consequently, the performance ratings on these two groups of missionaries had one rater respectively.

TABLE 3.2 Distribution of Missionaries by Mission Agency

Mission Agency	Number of Subjects	Percentage
A	85	31.7
B	44	16.4
C	43	16.0
D	35	13.1
E	61	22.8

Of the missionaries, 57.2% ($n = 151$) were female and 42.8% ($n = 113$) were male. Also 58.1% of the missionaries were over 40 years of age. (See Table 3.3 for age distribution.) They also represented most regions of the world. (See Table 3.4 for regional distribution.)

TABLE 3.3 Distribution of Missionaries by Age

Age	Number of Subjects	Percentage
21 to 25 years	6	2.2
26 to 30 years	8	3.0
31 to 35 years	57	21.3
36 to 40 years	41	15.4
over 40	155	58.1

TABLE 3.4 Distribution of Missionaries by World Regions

Region	Number of Subjects	Percentage
South America	106	41.7
Indonesia	38	15.0
East Africa	26	10.3
Europe	25	9.8
Central Africa	18	7.0
Far East	14	5.5
West Africa	11	4.3
Central America	6	2.4
North Africa	6	2.4
Middle East	4	1.6

The missionaries had a great deal of intercultural experience. Those that had spent 10 or more years in another culture made up 63% of the sample. (See Table 3.5 for number of years spent in another culture.)

TABLE 3.5 Number of Years Missionaries Had Spent in Another Culture

Number of Years	Number of Subjects	Percentage
0 to 4 years	43	16.4
5 to 9 years	54	20.6
10 to 14 years	40	15.3
15 to 19 years	40	15.3
over 20 years	85	32.4

MISSIONARY CANDIDATE SAMPLE

Two mission agencies gathered the data on missionary candidates for this study. Both mission agencies administered the ICS (Form C) to their 1985 missionary candidates with a total sample of 172. One mission agency also reported three other pieces of information on their 72 missionary candidates: (1) those who were rejected, (2) why they were rejected and, (3) those who were asked to obtain counseling before continuing to pursue a missionary career.

The missionary candidates were more evenly divided between male and female than were the missionaries. Of the candidates, 82 (48%) were male and 89 (52%) were female. The ages of the candidates reflected the larger number of more mature people that are now being accepted for missionary service. (See Table 3.6 for missionary candidate age distribution.) The missionary candidates were not generally experienced in another culture (0 to 4 years for 85.5%).

However, a surprising number ($n = 22$; 12.2%) had spent over 10 years in another culture. This number probably represents many of those who are returning as second generation missionaries.

Table 3.6 Distribution of Missionary Candidates by Age

Age	Number of Subjects	Percentage
17 to 20 years	1	.6
21 to 25 years	29	17.0
26 to 30 years	56	32.7
31 to 35 years	55	32.2
36 to 40 years	17	9.9
over 40 years	13	7.6

AN ASSESSMENT OF CONSTRUCT VALIDITY: THE FIRST FACTOR ANALYSIS

The first factor analysis of the 45 items from the ICS (Form C) was computed utilizing a principal axis factoring technique with an orthogonal rotation. It was done to determine how well the factors were functioning within the new data. All 489 questionnaires were included. The analysis produced 14 factors.

AN ASSESSMENT OF CONSTRUCT VALIDITY: THE SECOND FACTOR ANALYSIS

The second factor analysis was computed with all items except item 41. Item 41 had functioned irregularly in the first factor analysis. The second factor analysis employed

a principal axis factoring technique with an orthogonal rotation. The analysis produced 14 factors with slightly different configurations than were present in the first analysis. Twelve of the factors provided the basic factor structure for the criterion related assessment.

THE CRITERION RELATED ASSESSMENT

A preliminary criterion related check was made on the ICS (Form C) using data from one missionary candidate group (n = 72). The final disposition (acceptance or rejection) data were gathered and compared with the aggregate factor scores on the ICS (Form C).

Pearson Product Moment correlations (validity coefficients) were computed between the missionary responses on the ICS (Form C) and their performance ratings. The scores and performance ratings were analyzed in the following sequence:

1. Analyses of Variance and One-Way Analyses of Variance were computed to identify where significant differences existed between subgroups that influenced performance ratings. The differences identified were used to determine which subgroups might be more sensitive to the ICS (Form C).
2. Validity coefficients for the total missionary sample were computed between items and performance ratings and between factors and performance ratings. These analyses identified which factors were demonstrating concrete validity for field performance.
3. Validity coefficients were computed for certain subgroups between items and performance ratings and between factors and performance ratings.

All of the correlations were computed to evaluate the level of concurrent validity operating within the instrument. Each performance rating was analyzed separately because the criteria had been demonstrated to be distinct in the literature. Cronbach recommends analyzing performance criteria separately because of the specific information it affords. He states the following:

With diverse and dependable criteria, it is appropriate to find out what predicts each one. That is far more instructive than combining the criteria into a single index even if it complicates decision making (1984:368).

REVISION OF THE INTERCULTURAL COMPETENCY SCALE (FORM C)

The ICS (Form C) was revised to reflect the items from the 12 factors that emerged from the data on the field-test. All of the items included in the ICS (Form D) had loaded above .25 on a factor which contained two or more items. (For the factors and items in the ICS (Form D) see Appendix H.)

SUMMARY

The Intercultural Competency Scale was grounded in precedent research on the indicators for intercultural effectiveness. The scale was field-tested three times to establish its reliability and validity in relationship to its content, its constructs and its concurrence with intercultural effectiveness. The data gathered from each field-test was used to revise the items and improve the scale.

IV FINDINGS

The findings of an instrument development study must focus on the issues of validity and reliability. For an Intercultural Competency Scale to be used as an assessment tool in the selection and training of missionaries, the findings must demonstrate that it is, in fact, related to intercultural effectiveness in a consistent manner. To achieve this goal, the findings from each of the field-tests were used to refine the Intercultural Competency Scale thus increasing its validity and reliability as an assessment instrument.

Included in this chapter are findings from each of three field-tests conducted on the scale. The findings from the first field-test of the ICS (Form A) revealed that the instrument had some content validity. The close correspondence between professor rankings and pretest scores also provided a limited early criterion related assessment. The findings also demonstrated how well variability of the items, which also affects validity, was being controlled.

A factor analysis of responses from the second field-test of the ICS (Form B) indicated which factors were operating in the instrument, which factors were the most stable and which items belonged to each factor. Stable factors contribute to the reliability of the instrument.

The ICS (Form B) was revised in a manner that strengthened both reliability and construct validity. In addition, a more comprehensive criterion related test with a group in Bangkok demonstrated that the instrument was showing some criterion related validity.

Finally, the findings from the third field-test, using the ICS (Form C), gave further evidence that the instrument was related to intercultural effectiveness. The results of the factor analysis showed that certain factors in the instrument achieved acceptable validity. Based on the foregoing, the ICS (Form D) was prepared as the final product in this foundational study.

FIELD-TEST FINDINGS FROM THE INTERCULTURAL COMPETENCY SCALE (FORM A)

The ICS (Form A) was field-tested with a group of 35 students in an intercultural training course conducted in Hawaii. The instrument was also administered to an experienced intercultural trainer as another test of both content and construct validity.

FINDINGS RELATED TO CONTENT VALIDITY

The ICS (Form A) was administered as both a pretest and posttest in the intercultural training course. A comparison of the pretest and posttest subject scores showed the expected regression tendencies. However, the number of points gained (72) in the lower third posttest scores was much greater than the number of points lost (22) in the upper third posttest scores (see Appendix R). The results

suggested that change was occurring in a positive direction throughout the course lending support to the content validity of the instrument.

It was also significant that several subjects in the Hawaii sample were already highly experienced in a culture other than their own. Yet, no one achieved a perfect score of 250 which indicated that the instrument was not "topping out" in its scoring capacity. If several subjects had scored 250, the question would have arisen as to whether or not the scale had sufficient discriminatory power.

Pretest, posttest comparisons showed that out of the 50 items on the test, 33 showed an increase in posttest means indicating that the course was addressing much of the questionnaire content, at least in terms of verbal or conceptual recognition. Such findings also suggested that some of the predictive indicators in the scale are responsive to instruction.

The expert intercultural trainer, who had completed the questionnaire, scored 197 (a high score as compared to most of the student scores in the Hawaii sample). His score suggested that the instrument was tapping into intercultural competencies even at this early stage in its development.

CRITERION RELATED FINDINGS

Before receiving the aggregate subject scores, the professor for the Hawaii course described and ranked nine of the subjects according to his or her capacity to interact effectively in a different cultural environment.

Unfortunately, time constraints only allowed for the discussion of nine subjects.

The way in which the professor's comments and rankings of the nine subjects reflected the aggregate pretest scores was noteworthy. Five names were randomly chosen from the upper quarter of the pretest scores. One name was chosen from the second quarter and, four names from the lower quarter of the pretest scores. The professor described and ranked those individuals on their intercultural competency in relationship to the rest of the class (see Table 4.1).

The only subject (of the nine described) whose pretest score did not correspond with the professor's description and assigned rank was J.R., an Indonesian. For some reason, the score on the ICS (Form A) appeared not to be valid for this subject. J. R. could be one of those individuals that Cronbach calls the "misses" (1984:370) that appear in every predictive instrument study. Or, the problem might have been due to a difference in cultural perspective. It was decided to limit the testing of the instrument as much as possible to North Americans during the developmental stages and where feasible, monitor how individuals from other cultures perceive the questionnaire.

TABLE 4.1 Comparison of Descriptions of Intercultural Competency with Pretest Scores and Rankings on the Intercultural Competency Scale (Form A).

Subject	Pretest Score	Rank
F.G.	201	1
Professor comments: "She was at the top end of the group . . . very experienced cross-culturally, a hard-working, brilliant person (who) is so critical of her prejudices, and though she shows her prejudices more readily than most, her prejudices are probably less troublesome . . . because she is so open about them and is trying so hard to work on them."		
C.A.	193	2
Professor comments: "She was not at the top of the group but she was in the top quarter. She was positive, optimistic and had good interpersonal relationships."		
U.M.	192	3
Professor comments: "She was bright, clever, manipulative . . . and gregarious. She can be flexible, although she would rather have her own way. She has had lots of cross-cultural experience and probably did a good job at it."		
S.R.	187	6
Professor comments: "He was sixth or seventh from the top (of the group). He was very accepting; more accepting than most by far - experienced overseas. He had good relationships with Indonesians. He was not hostile, not demeaning or sarcastic at any time. He was patient and friendly, but calm and very quiet."		
L.G.	181	10
Professor comments: "She was in the top third in cultural sensitivity - tenth or eleventh, no, eleventh or twelfth. She was an aristocratic Egyptian; educated in England and speaks with an Oxford accent; friendly."		

Cont'd.

TABLE 4.1 Cont'd.

Subject	Pretest Score	Rank
J.R.	165	28
Professor comments: "She began, I suspect, toward the top - in the top quarter - in her competencies. If she was not in the top quarter (of the pretest scores) I would say that it the ICS (Form B) is not working for Indonesians. She was very sensitive, very accepting, very bright, and very mild. These showed in her capacity to tolerate Americans."		
F.H.	151	32
Professor comments: "Has worked overseas in several different contexts and is therefore experienced and competent to cope, but not terribly insightful about her cross-cultural experience. She is opinionated, and stubborn - has trouble handling the differences that Hawaiians represent."		
Y.I.	148	34.5
Professor comments: "She is deeply prejudiced, inflexible, stubborn, and isolated. She tried to give the appearance of being happy-go-lucky and related pretty well if she could do so on her own terms."		
R.V.	148	34.5
Professor comments: "He was sixth or seventh from the bottom in the group. He was culturally ignorant when we started out and in some respects slightly hostile; friendly but not dependable - low sensitivity to other people."		

FINDINGS RELATED TO CONSTRUCT VALIDITY

A comparison of the means of the "obvious" and the "subtle" item pairs on the pretests revealed that 12 of the 25 pairs showed a spread of 0.7 or more between the means. This finding suggested that both items in each pair might not be measuring its respective indicator. Perhaps the attempt to conceal the purpose of the "subtle" item from the subject had created too large of a difference between the items in the pairs and they were not measuring the same indicator.

OTHER FINDINGS RELATED TO VALIDITY

Other elements affecting the validity of the instrument were examined: the means and standard deviations of each item, the length of the questionnaire and, the arrangement and clarity of the items.

Since the purpose of the instrument was to discriminate between people on certain indicators and factors, it was reasoned that items showing a strong central tendency would weaken the instrument's power to discriminate between people. Therefore, means and standard deviations were computed for each item in order to assess variability. (Table 4.2 summarizes the means and standard deviations for all 50 items in the ICS (Form A) based upon the Hawaii subjects.)

Items with means below 2.2 or above 3.8 were singled out for further consideration. Items with standard deviations below 0.6 were also identified. Each item was

TABLE 4.2 Means and Standard Deviations for Items in The Intercultural Competency Scale (Form A)

Item	Mean	Standard Deviation		Item	Mean	Standard Deviation	
1	3.94 *	0.73	D	26	2.57	1.04	
2	4.03 *	0.66	C	27	3.71	0.93	D
3	2.09	1.09	C	28	4.4*	0.55 #	C
4	4.43 *	0.56 #	D	29	3.69	1.05	
5	4.09 *	0.74	D	30	3.2	0.68	
6	2.74	1.74		31	2.54	1.01	
7	3	1.33		32	2.91	0.95	
8	4.14 *	0.81	C	33	2.26	1.07	D
9	4.17 *	0.95	C	34	3.34	1.03	
10	3.6	0.95		35	3.97 *	0.95	C
11	3.42	0.98		36	3.17	0.86	
12	3.09	0.89		37	3.43	1.14	
13	3.43	0.92	D	38	3.34	0.94	C
14	3.91 *	0.82	D	39	3.66	0.97	D
15	3.06	1.03		40	3.51	0.74	
16	3.94 *	0.73	D	41	3.23	0.81	
17	3.77	0.97	C	42	3.54	0.92	
18	2.63	1.06	C	43	3.46	1.04	
19	2.94	1.08	C	44	3.37	1.11	
20	3.43	1.04		45	3.51	0.92	
21	3	1.08		46	4.34 *	0.59 #	D
22	4.14 *	0.49 #	D	47	4.29 *	0.62	C
23	4.34 *	0.64	D	48	3.66	0.73	
24	2.83	1.25		49	3.56	1.39	
25	4.29 *	0.62	C	50	1.76 *	1.00	D

* Means that are either too high or too low

Standard Deviations that are too low

D Item discarded, and a new one created for the ICS (Form B)

C Item changed for the ICS (Form B)

For the wording of the items in the ICS (Form A) see Appendix B.

For the wording of changed items see Appendix D.

carefully evaluated in light of its relationship with its counterpart in the "obvious-subtle" pair.

A list of inadequately sensitive items was compiled using all of the above information as well as comments made in the margins of the questionnaires by the subjects. Each item was considered carefully and only discarded when there seemed to be no way to repair it to increase its discriminating power. (Table 4.2 designates those items that were changed for the ICS (Form B) and those that were discarded.)

Finally, the professor teaching the Intercultural course reported that the subjects took only 15 to 20 minutes to complete the ICS (Form A). The length of the questionnaire seemed to be optimal. Questionnaires that take more than one half hour to complete would require time that is not always available to a mission agency interviewer who has many areas to explore. If the ICS were both short and reliable, it would be more useful as an assessment tool.

THE REVISION OF THE INTERCULTURAL COMPETENCY SCALE (FORM A)

In the final revision of the ICS (Form A), 12 items were discarded and replaced by newly created items. Twelve other items were changed in order to make them more understandable to the subject, more representative of the indicator or a better counterpart within the "obvious-subtle" pair. The Enterprise factor was also revised as described in Chapter III. (For the ICS (Form B) see Appendix D.)

FIELD-TEST FINDINGS FOR
THE INTERCULTURAL COMPETENCY SCALE (FORM B)

The ICS (Form B) was field-tested with a group of 462 subjects, 66.9 % of whom were undergraduate and graduate students. Several factor analyses were used to ascertain which factors were operating in the data.

The decision to proceed with an exploratory factor analysis was based on the Pearson correlation coefficients that were computed for all 25 pairs of "obvious-subtle" items representing each indicator (See Appendix N). Since these coefficients were not generally high, it was assumed that the factor structure operating within the data would be somewhat different from the conceptual structure. Consequently, an exploratory factor analysis was considered to be more productive.

It appeared that the "obvious-subtle" dichotomy had created more dissimilarity than similarity between items within the indicators than was desirable. Furthermore, it became evident that a concern for including a representative set of predictive indicators for intercultural effectiveness had provided more breadth than depth to the instrument. Future revisions would require more items per factor, or indicator, in order to increase reliability while preserving the breadth of content for validity.

FINDINGS RELATED TO CONSTRUCT VALIDITY:
THE FIRST FACTOR ANALYSIS

The first factor analysis of the data yielded 19 factors. The procedure chosen for this analysis produced an

oblique factor structure matrix which allowed for correlated factors. (Table 4.3 indicates the items that loaded onto each of the 19 factors.)

The analysis showed that most of the factors constructed from the literature were not holding together as factors, indicating that the way in which the content was organized could not be supported by the data. Most of the 19 factors did not contain clusters of items originally placed together.

At this juncture, a question arose as to how much certain poorly discriminating items might be influencing the outcomes of the factor analysis. A listing of the means and standard deviations of the items indicated that there was a natural break in the standard deviations between .845 and .864. Thus, items with a standard deviation of .845 or below were dropped for the second factor analysis on the rationale that they were introducing unnecessary "noise" into the findings. Fortunately this decision also removed most of the items with excessively high means (see Table 4.4).

FINDINGS RELATED TO CONSTRUCT VALIDITY: THE SECOND FACTOR ANALYSIS

The second factor analysis used the upper four-fifths of the questionnaire items (as determined by the standard deviations). A principal axis factoring procedure with an orthogonal rotation was used which requires that the factors not be correlated with each other. This factor structure

TABLE 4.3 Factors Derived from the Factor Structure Matrix
for the First Factor Analysis using all 50 items from The
Intercultural Competency Scale (Form B)

Items			Items		
Loadings			Loadings		
Factor			Factor		
I.	22	.56327	XI.	27	-.46457
	20	.52000		7	.43572
	8	.36416		16	-.41671
II.	15	.44381	XII.	42	.51580
	28	.44020		37	.41167
	12	.36038		40	.29182
	26	.30964	XIII.	34	.53152
	30	.29032		43	.43712
III. 16A-6B *		-.64851		10	.34191
	21	-.56533	XIV.	29	.63087
	24	-.39269		19	.45450
IV.	14	-.77387	XV.	4	.67267
	17	-.49880		36	.47371
	38	.19005		23	.44778
V.	31	.51988		47	.25992
	5	-.38349	XVI.	44	.39286
	33	-.34131	XVII.	32	.37555
VI.	11	.69606		35	-.29433
	46	-.24516	XVIII.	48	.47143
VII.	41	-.50126		39	.36818
	49	.29181		9	.34491
VIII.	25	-.73608	XIX.	50	.44316
	13	-.33822		3	.28678
	2	-.20226			
IX.	45	-.56801			
	7A-1B *	.37647			
X.	18	.78390			

* Numbers indicate the item position in both the ICS (Form A) and the ICS (Form B).
For the original ICS (Form B) factors and items see Appendix C.

TABLE 4.4 Means and Standard Deviations for Items in the
The Intercultural Competency Scale (Form B)

Items	Mean	Standard Deviation	Item	Mean	Standard Deviation
7A-1B	3.384	1.110	26	2.725	1.065
2	2.952	1.116	27	3.700	.922 #
3	3.058	1.117	28	3.621	.918 #
4	3.247	.889 #	29	3.327	1.148
5	3.203	1.035	30	2.869	.869 #
16A-6B	3.695	1.082	31	2.601	1.028
7	2.674	1.065	32	2.867	1.024
8	3.434	.917 #	33	4.028	.608 *
9	3.843	.877 #	34	3.942	.900 #
10	3.514	1.001	35	4.111	.714 *
11	3.502	.938 #	36	3.072	.949 #
12	2.647	.947 #	37	3.423	1.020
13	3.677	.827 *	38	3.514	.898 #
14	4.022	.592 *	39	3.440	.986
15	3.258	1.031	40	4.162	.789 *
16	2.885	.935 #	41	3.793	.789 *
17	3.530	.866 #	42	3.703	.923 #
18	2.674	.949 #	43	3.359	1.058
19	2.998	1.108	44	3.213	1.096
20	3.489	.998	45	3.505	.903 #
21	3.361	1.140	46	2.683	.919 #
22	3.580	.986	47	3.680	.845 *
23	4.041	.795 *	48	3.946	.577 *
24	3.020	1.151	49	3.544	1.347
25	3.696	.783 *	50	3.870	.864 #

* Items (10) with a standard deviation of .845 or below
that were dropped out of the second factor analysis.

Items (18) with a standard deviation of .949 or below
that were dropped out of the third factor analysis.

For the wording of the items in the ICS (Form B) see
Appendix D.

matrix revealed 15 factors (see Table 4.5).

An effort was made to identify the common thought that bound the items together within each factor. A tentative label was assigned to each factor. The loadings also ran generally higher than in the first factor analysis with less negative loadings. Such an outcome tends to be a function of the orthogonal rotation (Nunnally, 1978) making the findings easier to interpret. Of the 15 factors that emerged from the second factor analysis, seven appeared to have some stability because they contained two or more items that loaded above the .3 level. The process of labeling the common thought within each factor demonstrated that many of the desired indicators for intercultural effectiveness were still functioning in the instrument however, they were rearranged into different configurations.

FINDINGS RELATED TO CONSTRUCT VALIDITY: THE THIRD FACTOR ANALYSIS

A third factor analysis was computed using even fewer items than were used in the second factor analysis. This analysis included only those items that had standard deviations of .949 or higher, the point at which another natural break in the standard deviations occurred (see Table 4.4). This analysis employed only 22 out of the original 50 items yielding eight factors, six of which persisted intact from the second factor analysis. (See Table 4.6 for the eight factors.) The two factors that differed from those in the second factor analysis were combinations of factors from

TABLE 4.5 Factors Derived from the Factor Matrix for the Second Factor Analysis using 40 items from the Inter-cultural Competency Scale (Form B)

Factor	Factor
I. Open and Frank Items: 10, 43, 36, 37, 34 *	IX. Tolerant of Differences Items: 3(-), 39, 50(-) *
II. Low Ethnocentrism Items: 15, 26, 30, 28, 12 *	X. Freedom From Ethnic Prejudice Item: 18
III. Tolerance for Ambiguity Items: 16, 27, 44	XI. Social Confidence Item: 38
IV. Interaction Posture Items: 16A-6B, 21, 24	XII. Enjoys Problem Solving Items: 7A-1B, 49 *
V. Interest in Languages Items: 29, 45, 9 *	XIII. Role Flexibility Items: 42, 5 *
VI. Empathy Items: 20, 8, 31 *, 2 *	XIV. Nonjudgmental Item: 11
VII. Openness to Culture Learning Items: 19, 4, 17 *, 32 *	XV. Adventurous in Relationships Item: 46
VIII. The Need to be Prepared Items: 22, 7 *	

* Items that loaded below .3

(-) Items that loaded negatively on the factor

For the wording of the items in the ICS (Form B) see Appendix D.

TABLE 4.6 Factors Derived from the Factor Matrix from the Third Factor Analysis using 22 of the items from the Intercultural Competency Scale (Form B)

Factor

- I. Open and Frank
Items: 10, 43, 37
- II. Low Ethnocentrism
Item: 15, 19, 26
- III. Interaction Posture
Items: 21, 16A-6B, 32 *
- IV. Sociable
Items: 44, 24, 20
- V. The Need to be Prepared
Items: 22, 7 *
- VI. Cultural Perspectivism
Items: 29, 2
- VII. Capacity to Remain Objective
Items: 5, 31(-), 3(-), 39 *
- VIII. Enjoys Problem Solving
Items: 7A-1B, 49

* Items that loaded below .3
(-) Items that loaded negatively on the factor
For the wording of the items in the ICS (Form B) see
Appendix D.

that earlier analysis. A principal axis factoring technique with an orthogonal rotation was again employed.

FINDINGS RELATED TO CONSTRUCT VALIDITY: THE FOURTH FACTOR ANALYSIS

The major purpose of the fourth factor analysis was to retrieve items (dropped from the second and third factor analyses) which still had something to contribute to the stability of the factor structure. All of the items retrieved for the fourth factor analysis (except two) had (1) a standard deviation of .864 or above and, (2) had loaded with one or more companion items (3) at .3 or higher on a factor in an earlier analysis.

Items 18 and 9, did not meet all three of the above criteria. However, a judgment was made to include both items (18 and 9) in the fourth factor analysis. Item 18 had good correlations with three other items and item 9 had loaded with the same two items on all three previous factor analyses. As a result, item 18 did, in fact, load well (.48582) with items 16 and 27 in the fourth factor analysis. Item 9 did not fare as well. It loaded on a weaker factor, X (Low Ethnocentrism), at a level of .27448 with three items it had never been seen with before (See Table 4.7). Item 9 was repaired later in the revision of the ICS (Form B) to fit the factor better.

The fourth factor analysis included 32 items and employed a principal axis factoring procedure with an orthogonal rotation. Eleven factors emerged from this analysis

TABLE 4.7 Factors Derived from the Factor Structure
Matrix for the Fourth Factor Analysis Using 32 of the
Items from the Intercultural Competency Scale (Form B)

Factor

- I. Open and Frank
Items: 10, 43, 36, 37
 - II. Tolerance for Situational and Social Ambiguity
Items: 16, 18, 27
 - III. Sensitivity to Stranger's Perspectives
Items: 15, 28, 30, 26, 12 *
 - IV. Openness to Culture Learning
Items: 29, 19, 17 *
 - V. Interaction Posture
Items: 16A-6B, 21, 24
 - VI. Empathy
Items: 20, 8
 - VII. Experimental
Item: 4
 - VIII. Self-Confidence in Relationships
Items: 5, 42, 31(-)
 - IX. Enjoys Problem Solving
Items: 7A-1B, 49 *
 - X. Low Ethnocentrism
Items: 39, 45, 38 *, 9 *
 - XI. Realistic Pre-Field Expectations
Items: 3, 44
-

* Items which loaded below .3
 (-) Items which loaded negatively on the factor
 For the wording of the items in the ICS (Form B) see
 Appendix D.

(see Table 4.7). Ten of the 11 factors contained two or more items. Only five items had factor loadings that fell below .3. The seven most stable factors ultimately provided the organizing structure for the revision of the ICS (Form B).

FINDINGS RELATED TO CONSTRUCT VALIDITY: THE FIFTH FACTOR ANALYSIS

The fifth factor analysis followed the same procedure and used the same items as the fourth factor analysis but with the added specification that the items be forced into only nine factors. This added criterion forced Factors I (Open and Frank), VI (Empathy) and VII (Experimental) from the fourth factor analysis to combine as Factor I in the fifth factor analysis (see Table 4.8). A shift of this sort indicated that those three factors were closer to each other than they were to any of the other factors. In the ICS (Form C), the revision of the ICS (Form B), an effort was made to arrange factors that would avoid this sort of overlap.

CRITERION RELATED FINDINGS: BANGKOK SAMPLE

Within the sample of subjects ($n = 462$) who completed the ICS (Form B) was a group of 18 people working as educators in Bangkok. The aggregate scores on the ICS (Form B) for this group of educators ranged from 203 (out of a possible 250) to 143.

An analysis of the ICS (Form B) scores together with

TABLE 4.8 Factors Derived from the Factor Structure Matrix
for the Fifth Factor Analysis for 32 items from the
Intercultural Competency Scale (Form B)

Factor

- I. Initiative
Items: 36, 43, 10, 4, 20, 37, 8, 17 *
 - II. Tolerant of Differences
Items: 18, 16, 27, 3(-), 9 *, 39 *
 - III. Low Ethnocentrism
Items: 15, 30, 28, 26, 12 *
 - IV. Interaction Posture
Items: 6, 21, 24
 - V. Openness to Culture Learning
Items: 29, 19
 - VI. Capacity to Remain Objective
Items: 5, 31(-), 42 *
 - VII. Enjoys Problem Solving
Items: 7A-1B, 49 *
 - VIII. Tolerance for Ambiguity
Items: 44
 - IX. Social Confidence
Items: 45, 38
-

* Items that loaded below .3
 (-) Items that loaded negatively on the factor
 For the wording of the items on the ICS (Form B) see
 Appendix D.

the professor's intercultural effectiveness ratings provided a preliminary criterion related check on the instrument (see Table 4.9). Note that the subjects have been arranged according to their ICS (Form B) scores. All of the subjects in the upper third of the sample ($n = 6$), except one, received a rating of '6' or above in "evidence of relationships with Thais." In the lower third of the sample, '6' was the highest rating for "evidence of relationships with Thais." Two subjects were rated '2' and, two subjects were not rated at all. (One was a Thai herself and therefore is not representative of the expatriate). Note that A.I. in the lower third of the group was more difficult for the professor to rate (5 question marks instead of ratings). This lack of transparency with the professor might be due to the same dynamics that made it difficult to score higher on the ICS (Form B). Her score was 159.

Several other observations were made about this criterion related data. First, all those subjects who were rated as 'low' in evidence of "class consciousness in relationships with Thais," also ranked in the upper third of the ICS (Form B) aggregate scores. Second, all those subjects that rated a '3' (most descriptive) in "I'm a human being among Americans and Thais," were in the upper third of the sample. Third, most of the higher ratings on being "seasoned to Thailand" fall within the upper half of the sample.

One subject in this Bangkok group did not show the

TABLE 4.9 Aggregate Scores on the Intercultural Competency Scale (Form B) and Intercultural Effectiveness Ratings for the Bangkok sample.

RT = Evidence of Relationships with Thais (1 - 10 high)
 CC = Evidence of Class Consciousness in Relationships with Thais (Low, Medium, High)
 S3 = Seasoned to the Third Culture (1 - 10 high)
 ST = Seasoned to Thailand (1 - 10 high)
 AO = I'm an American Overseas (0, 1, 2, 3 most descriptive)
 AT = I'm an American in Thailand (0, 1, 2, 3 most descriptive)
 HB = I'm a human being among Americans and Thais (0, 1, 2, 3 most descriptive)
 CL = Professor's confidence level in making a judgment about a particular person (1 - 10 high)

I.D.	ICS (Form B)	RT	CC	S3	ST	AO	AT	HB	CL
<hr/>									
M.C.	* 203	4	med.	6	3	2	3	1	4
U.N.	191	9	low	7	10	1	2	3	9
I.B.	184	7	low	10	8	0	2	3	6
I.L.	179	6	med.	6	7	2	3	1	6
A.V.	179	7	hi.	10	8	2	3	1	8
L.M.	177	10	low	5	9	1	2	3	8
O.S.	175	8	med.	8	9	2	3	1	6
A.G.	173	7	hi.	10	8	2	3	1	8
D.K.	172	3	hi.	9	6	3	2	1	7
B.N.	170	?	?	8	5	2	3	1	4
R.M.	169	3	hi.	8	6	0	3	2	7
D.N.	162	9	med.	5	8	-	-	-	4
L.C.	162	2	?	5	3	3	2	1	5
G.D.	161	?	hi.	6	5	?	?	?	4
D.C.	160	6	med.	10	8	1	3	2	7
A.I.	159	5	med.	?	?	?	?	?	6
U.T.	# 154	?	?	8	?	?	?	?	5
A.C.	143	2	med.	9	3	3	2	1	5

* Identifying initials have been coded for confidentiality

This subject was Thai

expected effectiveness rating for her ICS (Form B) score. This person, M.C., was assigned a '4' in "evidence of relationships with Thais." The professor described her as "being really interested in everything" and "eager to become a world citizen." He also said that, "if she has an elevated score on the instrument it is probably sensitive to her enthusiasm. She is enjoying herself in Bangkok." It might have been that her natural enthusiasm led her to choose the extremes on the item scales more often than most which would elevate the score.

EXCERPTS FROM THE BANGKOK EDUCATORS' SELF-DESCRIPTIONS

Several of the subjects' self-descriptions also tended to support the scores on the ICS (Form B). Excerpts from three self-descriptions follow.

U.N., who scored 191 on the ICS (Form B) (within the top quarter) and was rated a '9' on "evidence of relationships with Thais," had this to say about herself:

Understanding their religion a bit more led me to want to know more about their beliefs and customs and many hours were spent (with her maid) exchanging stories and answering questions.

She also wrote:

Little do they (Americans) realize until they return to America, of the good life here or in various other cultures, of the opportunities of life they have missed just by being "dyed-in-the-wool" Americans.

Here is no American ghetto dweller. Here is a woman who pursued an understanding of Thai culture and has found it to be very stimulating.

I.B., scored 184 on the ICS (Form B) (within the upper quarter) and was rated a '7' on "evidence of relationships with Thais." I.B. represented the experienced internationalist who functions extremely well in any overseas context and whose relationships with host country people are very cordial but more formal:

I approach a new culture with intense curiosity about indigenous patterns in the fabric of simple daily life, as well as the more intricate, intrinsic, elusive, peripheral embroidery of human behavior. I always come away with "admiration."

The professor called her a "world citizen" but also one who had "no deep involvement with Thais."

D.C. scored 160 on the ICS (Form B) (in the lowest quarter) and was rated a '6' on "evidence of relationships with Thais." Her's is a different picture:

In all honesty I suspect that I have more cultural prejudices than the average American, just by having been exposed to various stereotypes. (She was raised in several different countries by American parents.) Once you hear something it never quite leaves your consciousness.

She also confesses:

I still don't believe I have resolved many of my own conflicts . . . My reaction to my itinerant background has been one of over-adaptation (if that is possible). I avoid confronting people and issues. My cultural distinctions are blurred, although still identifiably American, I am uncomfortable with that.

Her candor is impressive. She expresses so well the blurred sense of identity so common in expatriates who have difficulty living in an intercultural context. Her case suggests that it is not the amount of international experience that assures intercultural effectiveness, but rather the

capacity to reflect upon that experience productively. On the whole, these findings provided some encouraging evidence that the instrument was showing some criterion related validity (with intercultural effectiveness) although, the sample was small.

THE REVISION OF THE INTERCULTURAL COMPETENCY SCALE (FORM B)

The ICS (Form B) was revised using the fourth factor analysis as a guide (see Table 4.7). Factor I (Open and Frank) retained the same items and was labeled Forthrightness. Factor VI (Empathy) was re-labeled (Approachable) and a new item was designed to strengthen that factor. Item 4 from Factor VII (Experimental) was eliminated and so was the factor. The other factors in the fourth factor analysis, except IX, X, and XI were retained and included in the ICS (Form C). Three new factors were added:

1. Low Preoccupation with Difficulties
2. Positive Orientation
3. Enterprise

The above factors were added to replace important predictive indicators that had not persisted through the factor analyses. (For the factor definitions and items in the ICS (Form C) see Appendix E. For the ICS (Form C) see Appendix F.)

FIELD-TEST FINDINGS FROM THE INTERCULTURAL COMPETENCY SCALE (FORM C)

The ICS (Form C) was field-tested with a group of 489 subjects, 317 of whom were missionaries working in 30

different countries. Criterion related data in the form of Field Performance Ratings were collected on 268 of the missionaries. These questionnaires and their corresponding Field Performance Ratings were analyzed for correlations. The remaining 172 subjects were missionary candidates.

Both the candidate questionnaires and the missionary questionnaires were factor analyzed in order to further ascertain the scale's level of construct validity. A criterion related study was also conducted. Aggregate scores from each of 72 candidate questionnaires were computed and these scores were compared with data on the candidates' final dispositions (acceptance or rejection).

FINDINGS RELATED TO CONSTRUCT VALIDITY: THE FIRST FACTOR ANALYSIS

The first factor analysis of all 489 questionnaires using a principal axis factoring technique with an orthogonal rotation produced 14 factors. The factors and item loadings are summarized in Table 4.10.

Factor I, (Intercultural Receptivity) presented a problem. Item 41 loaded negatively on the factor at $-.43$. It was a new item created for the "Low Preoccupation with Difficulties" factor on the ICS (Form C) and was scored with the middle options high. (For the ICS (Form C) items and factor definitions see Appendix E.) The negative loading combined with the higher scores for the middle options obscured the intent of item 41 and its functionality in the

TABLE 4.10 Factors Derived from the Factor Matrix for the First Factor Analysis Using the 45 Items from the Intercultural Competency Scale (Form C)

Factors and Items	Loadings	Factors and Items	Loadings
I. Intercultural Receptivity		V. Social Openness	
45	.49204	44	.63140
29	.48124	18	.50733
28	.44668	VI. Enterprise **	
41	-.43173	14	.46436
19	.36570	34	.44751
II. Approachable		23	.39413
4 *	.66371	VII. Shows Respect	
20	.62884	21	.52677
39 *	.54795	40 *	.47136
8	.45627	6	.44161
III. Positive Realistic Orientation **		VIII. Social Confidence	
11	.65425	5	.57720
22	.57132	42	.37155
7	.46781	38 ***	-.35839
17	.40712	IX. Cultural Perspectivism	
IV. Forthrightness		12	.45377
36	.61413	15	.38394
10	.55434	30	.31905
43	.52516		
37	.32059		
35 ***	.30804		
			Cont'd.

* New item created for the ICS (Form C) that was expected to load on this factor

** New factor created for the ICS (Form C)

*** New item created for the ICS (Form C) that was not expected to load on this factor

See Appendix E for the original factor definitions and items in the ICS (Form C)

TABLE 4.10 Cont'd.

Factors and Items	Loadings	Factors and Items	Loadings
X. Low Preoccupation with Difficulties **		XII. Enterprise	
33 *	.50462	1	.49571
13 *	.29572	24 ****	.36966
9 ****	.28109	Only one item loaded on XIII and XIV therefore they are not considered as factors.	
XI. Flexibility			
2	.48707		
29	.34442		

Items that loaded alone on a factor or did not load above .3
anywhere else: Items 31, 3, 16, 32, 26, 25

* New item created for the ICS (Form C) that was expected
to load on this factor

** New factor created for the ICS (Form C)

*** New item created for the ICS (Form C) that was not ex-
pected to load on this factor

**** Item from ICS (Form B) that was not expected to load
on this factor

See Appendix E for the original factor definitions and items
in the ICS (Form C)

factor. Consequently, it was determined to factor analyze the data again without item 41.

FINDINGS RELATED TO CONSTRUCT VALIDITY: THE SECOND FACTOR ANALYSIS

The second factor analysis included all of the ICS (Form C) items except item 41. A principal axis factoring procedure was used with an orthogonal rotation. This analysis produced 14 factors. Two or more items loaded above .25 on 12 of the 14 factors. A comparison of the factors functioning in the ICS (Form B) data and the factors that emerged from the ICS (Form C) data showed that most of the factors were functioning very well within the instrument (see Table 4.11). The items had high loadings on their respective factors and most items loaded on the factor where they were expected to appear.

These two factor analyses revealed that the factors within the instrument were now demonstrating excellent stability. Consequently, the factors derived from the second analysis became the factors for the final version of the ICS (Form D). Also, these same factors were used to compute the factor scores for the criterion related test of the instrument. The factor names, definitions, eigen values and percent of variance are summarized in Table 4.12.

CRITERION RELATED FINDINGS

The findings from two separate criterion related tests of the ICS (Form C) are reported here. First is the study

TABLE 4.11 Comparison of Factors from the Second Factor Analysis of the ICS (Form C) Data (without item 41) with the Fourth Factor Analysis of the ICS (Form B) Data

ICS (Form C)		ICS (Form B)	
Factors and Items	Loadings	Factors and Items	Loadings
I. Approachable		VI. Approachable	
4 *	.67959	20	.64271
20	.62132	8	.39730
39 *	.51639	39 *	
8	.44161	4 *	
II. Intercultural Receptivity		IV. Intercultural Receptivity	
45 **	.54313	29	.69811
28 **	.47065	19	.44880
19	.34274	9	
42 **	.32306	2	
III. Positive, Realistic Orientation ***		New Factor: Positive, Realistic Orientation	
11 *	.65524	11 *	
22 *	.56486	7 *	
7 *	.47311	17 *	
17 *	.44104	22 *	
25 ****	.26704		

Cont'd.

* New item created for the ICS (Form C) that was expected to load on this factor

** Item from the ICS (Form B) that was not expected to load on this factor

*** New factor created for the ICS (Form C)

**** New item not expected to load on this factor

See Appendix H for the factor definitions and items for the second factor analysis (without item 41).

See Appendix E for the original ICS (Form C) factors.

TABLE 4.11 Cont'd.

ICS (Form C)		ICS (Form B)	
Factors and items	Loadings	Factors and items	Loadings
IV. Forthrightness		I. Forthrightness	
36	.60083	10	.66672
10	.58423	43	.60910
43	.51935	36	.44677
37	.32777	37	.36954
35 ****	.29363		
V. Social Openness		II. Social Openness	
44	.60938	16	.56029
18	.45945	18	.48582
		27	.47880
		44	.26661
IV. Enterprise ***		New Factor: Enterprise	
14 *	.53371	38 *	
23 *	.37696	34 *	
34 *	.35343	1 *	
		14 *	
		23 *	
VII. Shows Respect		V. Engagement	
21	.52776	6	.76217
40	.48494	21	.44361
6	.43506	24	.35518
		40 *	

* New item created for the ICS (Form C) that was expected to load on this factor

*** New factor created for the ICS (Form C)

**** New item not expected to load on this factor

See Appendix H for the factor definitions and items for the second factor analysis (without item 41)

See Appendix E for the original ICS (Form C) factor definitions and items

TABLE 4.11 Cont'd.

ICS (Form C)		ICS (Form B)	
Factors and items	Loadings	Factors and items	Loadings
VIII. Perseverance		New Factor: Low Preoccupa- tion with Difficulties	
33	.51674	13	
16 **	.30340	3 *	
13	.28280	33 *	
9 **	.27688	25 *	
		41 *	
IV. Flexibility		(See IV. Intercultural Receptivity)	
2	.50189		
29	.42353		
X. Cultural Perspectivism		III. Cultural Perspectivism	
12	.44686	15	.56029
15	.37804	28	.32667
30	.33512	30	.32147
		26	.30930
		12	.27168
		31	-.31554

* New item created for the ICS (Form C) that was expected to load on this factor

** Item from the ICS (Form B) that was not expected to load on this factor

*** New factor created for the ICS (Form C)

**** New item not expected to load on this factor

See Appendix H for the factor definitions and items for the second factor analysis (without item 41)

See Appendix E for the original ICS (Form C) factor definitions and items

TABLE 4.11 Cont'd.

ICS (Form C)		ICS (Form B)	
Factors and items	Loadings	Factors and items	Loadings
<hr/>			
XI. Venturesome			
1 ****	.47179		
24 **	.42393		
26 **	.28421		
XII. Social Confidence		VIII. Social Confidence	
31	.61037	5	.52156
5	.29373	42	.36333

* New item created for the ICS (Form C) that was expected to load on this factor

** Item from the ICS (Form B) that was not expected to load on this factor

*** New factor created for the ICS (Form C)

**** New item not expected to load on this factor

See Appendix H for the factor definitions and items for the second factor analysis (without item 41)

See Appendix E for the original ICS (Form C) factor definitions and items

TABLE 4.12 The Factor Names, Factor Definitions, Eigen Values and Percent of Variance on the Second Factor Analysis of the ICS (Form C) without item 41.

Factor

- I. APPROACHABLE - establishes contact with others easily.
Eigen Value = 4.81212
Percent of Variance = 30.2
- II. INTERCULTURAL RECEPTIVITY - interested in people especially people from other cultures.
Eigen Value = 1.72123
Percent of Variance = 10.8
- III. POSITIVE, REALISTIC ORIENTATION - the expectation that one can be a success living and working in another culture without being naive about the challenges.
Eigen Value = 1.48895
Percent of Variance = 9.3
- IV. FORTHRIGHTNESS - acts and speaks out readily.
Eigen Value = 1.22719
Percent of Variance = 7.7
- V. SOCIAL OPENNESS - the inclination to interact with people regardless of their differences.
Eigen Value = .94788
Percent of Variance = 6.0
- VI. ENTERPRISE - the tendency to approach tasks and activities in new and creative ways.
Eigen Value = .85500
Percent of Variance = 5.4

Cont'd.

TABLE 4.12 Cont'd.

Factor

- VII. SHOWS RESPECT - treats others in ways that make them feel valued.

Eigen Value = .83174
Percent of Variance = 5.2

- VIII. PERSEVERANCE - the tendency to remain in a situation and feel positive about it even in the face of some difficulties.

Eigen Value = .73837
Percent of Variance = 4.6

- IX. FLEXIBILITY - open to culture learning.

Eigen Value = .70571
Percent of Variance = 4.4

- X. CULTURAL PERSPECTIVISM - the capacity to imaginatively enter into another cultural viewpoint.

Eigen Value = .62704
Percent of Variance = 3.9

- XI. VENTURESOME - inclined towards that which is novel or different.

Eigen Value = .56816
Percent of Variance = 3.6

- XII. SOCIAL CONFIDENCE - tends to be self-assured.

Eigen Value = .52468
Percent of Variance = 3.3

of one missionary candidate sample ($n = 72$). Second is the study of the missionary sample ($n = 268$).

The Missionary Candidate Sample

Information from one missionary candidate sample was used as a preliminary assessment of the predictive validity of the instrument. (The study was done before the larger group of missionary questionnaires arrived.) The missionary candidates filled out the ICS (Form C) and information on each candidate's final disposition (acceptance or rejection) was collected. The aggregate subject scores on the instrument were arranged in order with the final disposition of the candidate placed alongside the aggregate scores. (See Appendix I for the scores and final dispositions.)

Discounting those who were rejected for medical or doctrinal reasons (beliefs differed from those espoused by the mission agency), three times as many people with problems were found in the lower half of the sample (nine people) as in the upper half (three people). Furthermore, two people with problems in the upper half placed at the lower end of that half. The mission agency identified the problems as psychological. People were either rejected because they were not psychologically able to go overseas, or they were asked to get counseling before pursuing a missionary career. The findings indicated that the same problems which endanger intercultural effectiveness identified by the mission interviewers were also reflected in the ICS (Form C) scores.

The Missionary Sample

The purpose for using a missionary sample in the study was to assess the concurrent validity of the instrument. If the missionary responses on the instrument could be demonstrated to correlate with their performance ratings, the ICS could be said to have concurrent validity for intercultural effectiveness.

Each performance rating, "Personal adjustment", "Task performance" and "Relationships with nationals" were measured on a scale of 1 - 5 (low to high). The largest number of missionaries rated '4' on all three rating scales. (See Table 4.13 for the distribution of the performance ratings.)

TABLE 4.13 Distribution of Missionary Field Performance Ratings

	Personal Adjustment	Task Performance	Relationships with Nationals
Ratings	%	%	%
1	.4	0	.4
2	6.0	1.5	6.4
3	23.3	18.4	19.2
4	55.3	58.3	48.7
5	15.0	21.4	25.3

The findings relating performance ratings and questionnaire responses are reported in the following order:

1. Analyses of Variance indicating where significant differences existed between subgroups in the sample that influenced performance ratings. (These results were used to determine which subgroups might be more sensitive to the ICS (Form C).
2. Correlation coefficients for the total missionary sample between items and performance ratings and between factors and performance ratings indicating which items and factors were showing concurrent validity with field performance.
3. Correlation coefficients for certain subgroups between items and performance ratings and between factors and performance ratings indicating which items and factors were showing concurrent validity for certain subgroups in the sample. The subgroups were as follows:
 - a. Male missionaries
 - b. Female missionaries
 - c. Missionaries selected by colleagues as having highly effective relationships with nationals
 - d. Missionaries not selected by colleagues as having highly effective relationships with nationals.

Differences Between Groups of Missionaries

Analysis of Variance and One-Way Analysis of Variance were used to find significant differences between groups of missionaries on performance ratings. It was reasoned that the ICS (Form C) might be more responsive (in whole or in part) to certain groups of missionaries than to other groups. Consequently, missionary groups were explored for differences. Groups based upon sex, mission agency, type of work and, years in another culture were analyzed for significant differences.

Males and Females

A significant difference (.05) was found between males and females on the "Task Performance" and "Relationships with Nationals" ratings. The performance mean for males was the higher mean of the two in all three ratings. (See Table 4.14 for a summary of these differences.)

Table 4.14 Differences Between Male Missionaries and Female Missionaries on Performance Ratings

Means of Performance Ratings				
Sex	n	Personal Adjustment	Task Performance	Relationships with Nationals
Females	150	3.7333	3.9333	3.8067
Males	112	3.8929	4.1429	4.0991
		p = .0982	p = .0198	p = .0062

Mission Agencies

Only one significant difference (.05) was found between missionaries from mission agencies D and E on the "Task Performance" rating (means: agency D = 4.2286; agency E = 3.8136). Since agency D only had one rater and agency E had 12 raters it was assumed that this one significant difference could be due to the variability in raters. No other

significant differences (between all the differences possible) were found between the five agencies and the three performance ratings.

Type of Work

Several significant differences (.05) were found between different types of work and performance ratings. However, the "n" for many groups was so small that it would be difficult to show that the differences were not due to sampling error. (See Appendix J for the type of work represented in the missionary sample.)

Number of Years in Another Culture

Several significant differences (.05) were found between number of years in another culture and all three performance ratings. (See Appendix P for the performance rating means and significant differences.) Several observations about these findings can be noted. Those who have been in another culture 0 - 4 years had the lowest performance ratings. The "Task Performance" rating ranked the highest of the three. The means for "Relationships with Nationals" rating rose with the number of years in another culture then tended to flatten out after 9 years. The means for the "Personal Adjustment" and "Task Performance" ratings tended to peak with the group that had been in another culture 10 to 14 years and then leveled out. There was a general increase in performance ratings as the years in another culture increased.

Validity Coefficients for the
Total Missionary Sample

Validity coefficients were computed between items and missionary performance ratings and factor scores and missionary performance ratings. Twenty-two items showed correlations significant at the .05 level with one or more performance ratings. Item 19 showed correlations significant at the .05 level for all three performance ratings. Six items correlated at the .05 level for two performance ratings and 11 items correlated at the .05 level for one performance rating. The highest correlation was .2227 ($p = .001$) between item 29 and the "Relationships with Nationals" performance rating. (See Table 4.15 for a summary of the correlations and p values. For the wording of the items on the ICS (Form C) see Appendix F.)

Six factors correlated at the .05 level for one or more of the performance ratings. Factor IX (Flexibility) had correlated at the .05 level with all three performance ratings. Factors II (Intercultural Receptivity) and XI (Venturesome) correlated at the .05 level with two performance ratings. Factors IV (Forthrightness), X (Cultural Perspectivism) and, XII (Social Confidence) correlated at the .05 level with one performance rating. The total factor score showed a correlation significant at the .05 level with the "Relationships with Nationals" rating. The highest correlation was .1954 ($p = .001$). Seven of the eleven correlations significant at the .05 level were for

TABLE 4.15 Pearson Correlation Coefficients and p Values
Between All Items on the ICS (Form C) and Performance
Ratings Significant at the .05 Level for Missionaries

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships With Nationals
Item:			
2	.1089 p = .039	.1187 p = .023	
3		-.1452 p = .010	
4		-.1063 p = .042	
5			.1287 p = .019
8		-.1087 p = .038	
14	-.1680 p = .003		-.1285 p = .019
15		.1632 p = .004	.1533 p = .006
16		-.1015 p = .049	
17			-.1349 p = .014
19	.1142 p = .031	.1502 p = .007	.1138 p = .032
21		-.1160 p = .030	-.1377 p = .013
22			.1011 p = .051
Cont'd.			

See Appendix F for the ICS (Form C)

TABLE 4.15 Cont'd.

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships With Nationals
Item:			
24			.1115 p = .036
26	.1050 p = .044		.1026 p = .048
29		.1264 p = .020	.2227 p = .007
34	.1176 p = .029		
35			.1367 p = .013
37			.1219 p = .034
39		-.1480 p = .008	
40		.1031 p = .047	.1129 p = .034
42	.1054 p = .043		
45			.1707 p = .003
Cont'd.			

Items that do not correlate at the .05 level with performance ratings are items: 1, 6, 9, 10, 11, 12, 13, 18, 20, 22, 23, 25, 27, 28, 30, 31, 32, 33, 36, 38, 41, 43, 44.

See Appendix F for the ICS (Form C)

"Relationships with Nationals." (See Table 4.16 for a summary of the correlations and p values. Return to Table 4.12 for factor definitions.)

Validity Coefficients for Subgroups
Within the Missionary Sample

Validity coefficients were computed for four subgroups between their performance ratings and the items and between their performance ratings and their factor scores. The subgroups chosen for analysis were: males, females, missionaries selected by colleagues as having highly effective relationships with nationals and missionaries who were not so selected.

Items: Male Missionaries

Eighteen items showed correlations significant at the .05 level with one or more performance ratings for male missionaries. Items 7, 13 and 37 showed correlations significant at the .05 level with all three performance ratings. Five items correlated at the .05 level with two performance ratings and 10 items correlated at the .05 level with one performance rating. The highest correlation was .2855 ($p = .001$) between item 37 and the "Task Performance" rating. (See Table 4.17 for a summary of the correlations significant at the .05 level for all groups. For the correlations and p values for males see Appendix K. For the wording on the items on the ICS (Form C) see Appendix F.)

TABLE 4.16 Correlations Between Factors from the ICS (Form C) and Performance Ratings for Missionaries

Factor	Performance Ratings		
	Personal Adjustment	Task Performance	Relationships with Nationals
I Approachable	-.0533 p = .196	-.0828 p = .091	-.0358 p = .282
II Interculturally Receptive	.0700 p = .129	.1061 p = .043 *	.1738 p = .002 *
III Positive, Realistic Orientation	-.0602 p = .167	-.0695 p = .132	-.0339 p = .294
IV Forthrightness	-.0450 p = .240	.0672 p = .145	.1179 p = .032 *
V Social Openness	-.0414 p = .254	.0672 p = .319	.1179 p = .215
VI Enterprise	-.0210 p = .369	-.0018 p = .489	-.0025 p = .484
VII Shows Respect	.0367 p = .278	.0091 p = .442	-.0272 p = .331
VIII Perseverance	-.0499 p = .213	-.0167 p = .395	.0057 p = .464
IX Flexibility	.1070 p = .042 *	.1524 p = .007 *	.1954 p = .001 *

* Significant at .05
See Table 4.12 for factor definitions

TABLE 4. 16 Cont'd.

Performance Ratings			
Factor	Personal Adjustment	Task Performance	Relationships with Nationals
X Cultural Perspectivism	.0688 p = .137	.0957 p = .064	.1241 p = .024 *
XI Venturesome	.1235 p = .023 *	.0464 p = .228	.1341 p = .015 *
XII Social Confidence	.0292 p = .236	.0670 p = .164	.1076 p = .041 *
Total Factor Score	.0504 p = .236	.0685 p = .164	.1076 p = .012 *

* Significant at .05
See Table 4.12 for factor definitions

TABLE 4.17 Correlations Significant at the .05 Level
Between Items and Performance Ratings for Missionaries

Performance Ratings: P = "Personal Adjustment"
 T = "Task Performance"
 R = "Relationships with Nationals"
 (-) = Negative Correlation

Groups: Selected = Missionaries Selected by Colleagues as
 Having Highly Effective Relationships
 with Nationals
 Unselected = Missionaries Not Selected by Colleagues
 as Having Highly Effective Relation-
 ships with Nationals

Item	Total	Males	Females	Selected	Unselected
1			R		
2	P,T		P	P,T,R	
3	-T	-T,-R		-T	-T
4	-T				
5	R	T,R			R
6		R			
7		-P,-T,-R		-P,-T,-R	
8	-T				
9		T			
10					
11		-P			
12				R	
13		-P,-T,-R			
14	-P,-R	-P		-R	-P
15	T,R	T,R			R
16	-T				-P,-T

Cont'd.

TABLE 4.17 Cont'd.

Performance Ratings: P = "Personal Adjustment"
T = "Task Performance"
R = "Relationships with Nationals"
(-) = Negative Correlation

Groups: Selected = Missionaries Selected by Colleagues as
Having Highly Effective Relationships
with Nationals
Unselected = Missionaries Not Selected by Colleagues
as Having Highly Effective Relation-
ships with Nationals

Item	Total	Males	Females	Selected	Unselected
17	-T, -R		-T, -R	-P, -R	
18					
19	P, T, R	P, R	T		T
20					
21	-T, -R			-T	
22			T, R		R
23					
24	R		R		P
25				P, R	
26	P, R				
27					-P
28		T, R			
29	T, R	R	T, R		R
30					
31					
32					

Cont'd.

TABLE 4.17 Cont'd.

Performance Ratings: P = "Personal Adjustment"
 T = "Task Performance"
 R = "Relationships with Nationals"
 (-) = Negative Correlation

Groups: Selected = Missionaries Selected by Colleagues as
 Having Highly Effective Relationships
 with Nationals
 Unselected = Missionaries Not Selected by Colleagues
 as Having Highly Effective Relation-
 ships with Nationals

Item	Total	Males	Females	Selected	Unselected
33					
34	P				
35	R	R			R
36					
37	R	P, T, R		R	
38		P			
39	-T			-T	
40	T, R	T			
41					
42	P	R			R
43				-P	
44					
45	R	R	R		R

For the wording of the items on the ICS (Form C) see
 Appendix F

Items: Female Missionaries

Eight items correlated at the .05 level with one or more performance rating for female missionaries. No item correlated at a significant level with all three performance ratings. Items 17 and 22 correlated at the .05 level with two performance ratings and five items correlated at the .05 level with one performance rating. The highest correlation was .2285 ($p = .003$) for item 29 on the "Relationships with Nationals" performance rating. (See Table 4.17 for a summary of the correlations significant at the .05 level for all groups. For the correlations and p values for female missionaries see Appendix K. For the wording of the items on the ICS (Form C) see Appendix F.)

Items: Selected Missionaries

Eleven items showed correlations at the .05 level with one or more performance rating for those selected by their colleagues as having highly effective relationships with nationals. Items 2 and 7 correlated at the .05 level with all three performance ratings. Items 17 and 25 correlated at the .05 level with two performance rating and seven items correlated at the .05 level with one performance rating. The highest correlation was .2892 ($p = .007$) for item 2 on the "Task Performance" rating. (See Table 4.17 for a summary of the correlations for all groups. For the correlations and p values for the selected missionaries, see Appendix K. For the wording of the items on the ICS (Form C) see Appendix F.)

Items: Unselected Missionaries

Thirteen items showed correlations at the .05 level with one or more performance ratings for those who were not selected by their colleagues as having highly effective relationships with nationals. No item correlated at the .05 level with all three performance ratings and item 16 correlated at the .05 level with two performance ratings. Twelve items correlated at the .05 level with one performance rating. The highest correlation was .1921 ($p = .005$) for item 30 with the "Relationships with Nationals" rating. (See Table 4.17 for a summary of the correlations significant at the .05 level for all groups. For the correlations and p values for unselected missionaries, see Appendix K. For the wording of the items on the ICS (Form C) see Appendix F.)

Factors: Male Missionaries

Six factors showed correlations at the .05 level with one or more performance ratings for males. No factor correlated at the .05 level with all three performance ratings. Factors III (Positive, Realistic Orientation), X (Cultural Perspectivism) and XII (Social Confidence) correlated at the .05 level with two performance ratings. Factors II (Intercultural Receptivity), IV (Forthrightness) and IX (Flexibility) correlated at the .05 level with one performance rating. The highest correlation was .2976 ($p = .001$) between Factor II (Intercultural Receptivity) and the

"Relationships with Nationals" rating. The total factor score correlated at the .05 level with the "Task Performance" and "Relationships with Nationals" ratings. (See Table 4.18 for a summary of the correlations at the .05 level for all groups. For the correlations and p values for male missionaries, see Appendix K. For factor definitions and wording of items see Appendix H.)

Factors: Females

Three factors showed correlations at the .05 level with one or two performance ratings for female missionaries. No factors correlated at the .05 level with all three performance ratings. Factor IX (Flexibility) was the only factor that correlated at the .05 level with two performance ratings. Factors IV (Forthrightness) and XI (Venturesome) correlated at the .05 level with one performance rating. The highest correlation was .2437 ($p = .002$) between Factor XI (Venturesome) and the "Relationships with Nationals" rating. The total factor score did not correlate at the .05 level with any of the performance ratings. (See Table 4.18 for a summary of the correlations at the .05 level for all groups. For the correlations and p values for female missionaries see Appendix K. For factor definitions and wording of the items see Appendix H.)

Factors: Selected Missionaries

Three factors correlated at the .05 level with one or two performance ratings for the missionaries selected by

TABLE 4.18 Correlations Significant at the .05 Level
Between Factor Scores and Performance Ratings for
Missionaries.

Performance Ratings: P = "Personal Adjustment"
 T = "Task Performance"
 R = "Relationships with Nationals"
 (-) = Negative Correlation

Groups: Selected = Missionaries Selected by Colleagues as
 Having Highly Effective Relationships
 with Nationals
 Unselected = Missionaries Not Selected by Colleagues
 as Having Highly Effective Relation-
 ships with Nationals

Factor	Total	Males	Females	Selected	Unselected
I					-T
II	T,R	R			R
III		P,T		-P	
IV	R	T	-P		
V					
VI					
VII					
VIII					
IX	P,T,R	R	T,R	T,R	
X	R	T,R		R	
XI	P,R		R		
XII	R	T,R			
Total Factor Score	R	T,R			

For Factor Definitions and wording of the items see
Appendix H.

their colleagues as having highly effective relationships with the nationals. Factor IX (Flexibility) correlated at the .05 level with the "Task Performance" and "Relationships with Nationals" ratings. Factors III (Positive, Realistic Orientation) and X (Cultural Perspectivism) correlated at the .05 level with one performance rating. The highest correlation was .3863 ($p = .004$) between Factor IX (Flexibility) and the "Relationships with Nationals" rating. The total factor score had no correlation at the .05 level with performance ratings. (See Table 4.18 for a summary of the correlations at the .05 level for all groups. For the correlations and p values for selected missionaries see Appendix K. For factor definitions and items see Appendix H.)

Factors: Unselected Missionaries

Two factors showed correlations at the .05 level with one performance rating for missionaries who were not selected by their colleagues as having highly effective relationships with nationals. No factors correlated at the .05 level with two or three performance ratings. The factors that did correlate at the .05 level with one performance rating were I (Approachable) and II (Intercultural Receptivity). The highest correlation was .1523 ($p = .013$) for Factor II (Intercultural Receptivity) with the "Relationships with Nationals" rating. The total factor score showed no correlations at the .05 level with performance

ratings. (See Table 4.13 for a summary of the correlations at the .05 level for all groups. For the correlations and p values for unselected missionaries see Appendix K. For factor definitions and wording of the items see Appendix H.)

Summary

In summary, 32 of the 45 items correlated at the .05 level with performance ratings for one or more groups. The items that did not correlate were as follows:

10, 13, 18, 20, 23, 30, 31, 32, 33, 36, 41, 43 and, 44.

Eight of the 12 factors correlated at the .05 level with performance ratings for one or more groups. The factors that did not correlate were as follows:

V, VI, VII and, VIII.

The number of correlations at the .05 level for each group between items and performance ratings were as follows:

Total Group - 31
 Males - 26
 Females - 11
 Selected by Colleagues - 16
 Not Selected by Colleagues - 14

The number of correlations at the .05 level for each group between factors and performance ratings were as follows:

Total Group - 11
 Males - 11
 Females - 4
 Selected by Colleagues - 4
 Not Selected by Colleagues - 2

These results were used to identify which factors in the ICS (Form D) were presently predictive of performance and which factors needed further study.

REVISION OF THE
INTERCULTURAL COMPETENCY SCALE (FORM C)

The revision of the ICS (Form C) was undertaken in four stages. In the first stage the 13 items that did not correlate at the .05 level with performance ratings were re-evaluated at the .01 level. Items that correlated at the .01 level with performance ratings were retained in the ICS (Form D). In the second stage, the three items that did not correlate significantly at the .01 level with performance ratings were re-evaluated for their contributions to their respective factors. In the third stage, those factors that did not have any significant correlations at the .05 level with performance ratings were re-evaluated. In the fourth stage, those items that did not belong to factors were re-evaluated for repair.

STAGE ONE

Of the thirteen items that did not correlate at the .05 level with performance ratings, only four items did not show correlations at the .01 level. These items were: 23, 30, 33, and, 41. Item 41 was discarded before the second factor analysis and was dropped from the scale.

STAGE TWO

Items 23, 30, 33, were re-evaluated in light of their contributions to the strength of their respective factors. (See Appendix M for the rationale used to retain or discard these items in the ICS (Form D).

Item 23 from Factor VI (Enterprise) and item 30 from Factor X (Cultural Perspectivism) were both retained for the ICS (Form D). They both contributed to the integrity of the factor. Item 33 is not a positive correlate for performance. The factor in which item 33 belongs, VIII (Perseverance) did not show any correlation with performance either. Further study is needed if it is to become a useful factor within the instrument.

Items 7 and 17 functioned somewhat irregularly. Both items loaded positively on Factor III but correlated negatively with one or more performance ratings. The negative correlations may be due to the unusual scoring system for these items. Middle options were scored higher. Therefore, further study of these items and the factor they represent, III (Positive Realistic Orientation) is needed before the factor scores can be used.

STAGE THREE

Factor scores that showed no significant correlations with performance ratings were re-evaluated.

Factor V (Social Openness)

Factor V (Social Openness) contained two items (44 and 18) with high loadings (.60 and .45). Neither item correlated with performance ratings at the .05 level. However, item 44 correlated with the "Task Performance" rating at the .08 level for the selected group. Item 18 correlated with the "with Nationals" rating at the .053 level for Females.

Factor V will need further study if it is to become a useful factor within the instrument.

Factor VI (Enterprise)

Factor VI (Enterprise) was re-evaluated along with item 23. The factor is not presently predictive of performance. Further study of Factor VI (Enterprise) will be necessary.

Factor VII (Shows Respect)

Factor VII (Shows Respect) contained three items (21, 40, 6) with high loadings (.52, .48, .43). All three items correlated at the .05 level with performance ratings. One negative correlation at the .096 level was found for the factor with the "Task Performance" rating in the selected group. Item 21 also correlated negatively at the .05 level with the "Task Performance" rating. Such a finding is understandable. Those missionaries who view some people as not deserving of a hearing are those who "get the task done." This same item (21) also correlated negatively with the "Relationships with Nationals" rating for the total missionary group. The finding is hard to explain. Furthermore, item 40 correlated positively with "Task Performance" and "Relationships with Nationals" for the entire group and "Task Performance" for males. It appears that the positive and negative correlations for this factor cancelled each other out. Therefore it is evident that the factor needs repair and further study before it can be used within the scale.

Factor VIII (Perseverance)

Factor VIII (Perseverance) showed no correlations significant at the .05 level with performance ratings. It was re-evaluated in Stage Two along with item 33.

STAGE FOUR

Items that did not load on any factor were re-evaluated for inclusion in the instrument. The items were as follows: 27, 3, 32 and 38. All four items were eliminated from the ICS (Form D) since they did not contribute to any of the twelve factors.

The revised instrument, the ICS (Form D), contained 40 items and 12 factors. Certain factors and items need repair and further study.

SUMMARY

The findings from the three field-tests of the Intercultural Competency Scale showed considerable construct validity and moderate criterion related validity.

Male missionaries had the highest number of correlations significant at the .05 level between their performance ratings and their responses on the scale. Missionaries who were selected by their colleagues as having highly effective relationships with nationals ranked second. Females ranked third. Missionaries who had not been selected as having effective relationships with nationals showed the fewest correlations significant at the .05 level

between responses on the scale and their performance ratings.

The final product, the Intercultural Competency Scale (Form D) consisted of 40 items and 12 stable factors. The factors represented many of the predictive indicators for intercultural effectiveness. Six factors correlated with intercultural effectiveness for the entire missionary sample.

TABLE 4.19 Factor Names and Definitions For the
Intercultural Competency Scale (Form D)

Factor	
I.	APPROACHABLE - establishes contact with others easily.
II.	INTERCULTURAL RECEPTIVITY - interested in people especially people from other cultures.
III.	POSITIVE, REALISTIC ORIENTATION - the expectation that one can be a success living and working in another culture without being naive about the challenges.
IV.	FORTHRIGHTNESS - acts and speaks out readily.
V.	SOCIAL OPENNESS - the inclination to interact with people regardless of their differences.
VI.	ENTERPRISE - the tendency to approach tasks and activities in new and creative ways.
VII.	SHOWS RESPECT - treats others in ways that make them feel valued.
VIII.	PERSEVERANCE - the tendency to remain in a situation and feel positive about it even in the face some difficulties.
IX.	FLEXIBILITY - open to culture learning.
X.	CULTURAL PERSPECTIVISM - the capacity to imaginatively enter into another cultural viewpoint.
XI.	VENTURESOME - inclined towards that which is novel or different.
XII.	SOCIAL CONFIDENCE - tends to be self-assured.

CONCLUSIONS AND RECOMMENDATIONS

The decisions that cluster around the selection and training of expatriates are often made without adequate information. Some people are sent overseas on assignment who lack the basic skills and attitudes to interact effectively in another culture because no means exists for identifying these skills and attitudes. The study has sought to provide international agencies, more specifically mission agencies, with an assessment instrument which focuses on the predictive indicators for intercultural success. The purpose of the study was to develop the Intercultural Competency Scale, a criterion referenced questionnaire which demonstrates concurrent validity with intercultural effectiveness.

Precedent research in intercultural effectiveness provided the basis for the ICS. The instrument was improved following each of three field-tests. The final results showed the instrument factors to be stable while certain of the factors evidenced predictive validity for intercultural effectiveness.

CONCLUSIONS

The research sought to answer the following questions:

1. What predictive indicators of intercultural effectiveness exist to warrant the building of an intercultural competency scale?
2. Is it feasible to create items, based upon identified predictive indicators, that can be demonstrated to function together within distinct factors?
3. Will the identified items and factors correlate with an external criterion of intercultural effectiveness?

The conclusions address each question in turn.

1. THE PREDICTIVE INDICATORS

An analysis of the literature revealed that several predictive indicators of intercultural effectiveness have been identified in precedent research studies. The conclusion was that the number of indicators with empirical support warranted the building of an assessment scale. Initially 25 indicators were identified and included in the form of items within the Intercultural Competency Scale.

The following indicators were selected:

1. Tolerance for Ambiguity
2. Openness of Stereotypes
3. Freedom from Ethnic Prejudice
4. Reduced Ethnocentrism
5. Nonjudgmental
6. Empathetic
7. Shows Respect
8. Good Listener
9. Interest in Other Cultures
10. Sociable
11. Positive Self-Image
12. Shows Initiative
13. Calm in the Face of Hostility and Antagonism
14. Open and Frank

15. Positive, Realistic Pre-Field Expectations
16. Flexible Towards the Beliefs and Ideas of Others
17. Enjoys Problem-Solving
18. Broad Categorizer
19. Good Inquiry Skills
20. Good Observation Skills
21. Perseverance
22. Role-Flexibility
23. Adaptable
24. Experimental
25. Adventurous in Relationships

Such a broad approach was necessary to ensure that the scale would have some probability of correlating with intercultural performance.

2. THE FACTORS

Stable factors in the instrument were created from items based upon identified predictive indicators. The final factor analysis of the items in the Intercultural Competency Scale isolated 12 factors. Each factor represented a predictive indicator for intercultural effectiveness.

The stability and reliability of the factors has been demonstrated. Nine of the 12 factors contained three or more items, all items loaded above .25 on their respective factors and 26 of the final 40 items loaded above .40. Furthermore, several factors persisted almost intact from the second field-testing through the third.

The following labels identify the central idea within each factor:

- I. Approachable
- II. Intercultural Receptivity
- III. Positive, Realistic Orientation
- IV. Forthrightness
- V. Social Openness
- VI. Enterprise
- VII. Shows Respect
- VIII. Perseverance
- IX. Flexibility
- X. Cultural Perspectivism
- XI. Venturesome
- XII. Social Confidence

The conclusion is that the Intercultural Competency Scale contains stable factors representative of various predictors of intercultural effectiveness.

3. THE VALIDITY COEFFICIENTS

Certain items and factors in the Intercultural Competency Scale did correlate with intercultural performance ratings for missionaries. The scale does show predictive power for intercultural effectiveness in missionaries.

Three field performance ratings were used:

- 1. Personal Adjustment
- 2. Task Performance
- 3. Relationships with Nationals

Twenty-one items and six factors in the scale correlated at the .05 level with one or more field performance ratings for all missionaries. Thirty-one items and eight factors correlated at the .05 level with performance ratings for one or more of the missionary subgroups. The correlations at the .05 level ranged from .1 to .42.

The eight correlating factors are listed as follows:

- I. Approachable
- II. Interculturally Receptive
- III. Positive, Realistic Orientation
- IV. Forthrightness
- IX. Flexibility
- X. Cultural Perspectivism
- XI. Venturesome
- XII. Social Confidence

The conclusion is that eight of the twelve factors contribute to the prediction of intercultural effectiveness for one or more missionary groups.

Factors and "Personal Adjustment" Ratings

Four factors correlated significantly with the "Personal Adjustment" rating:

- III. Positive, Realistic Orientation
- IV. Forthrightness
- IX. Flexibility
- XI. Venturesome

Factor IX (Flexibility) correlated positively with personal adjustment for all missionaries. Flexibility refers to openness to culture learning. Therefore, the indication is that an expatriate who is open to learning about the new culture will adjust better to living in a new culture.

Factor XI (Venturesome) correlated positively with personal adjustment for all missionaries. Such evidence indicates that expatriates who enjoy the novel or the different would find it easier to live where new ways have to be found to cope with day-to-day living.

Factor IV (Forthrightness) correlated negatively with

personal adjustment for females. The finding suggests that women who "speak their mind" are not as well adjusted to the foreign environment. This finding was unexpected. The "Personal Adjustment" rating included "rarely" complaining "about the nationals," "relates well to other missionaries" and "copes well with day-to-day living." It can be reasoned that forthright women tend to speak more openly about their difficulties and, as a consequence, are perceived as not adjusting well. It may also be reasoned that forthright women who are not well adjusted are more obvious to the raters. Why this was true for women but not for men is not clearly understood.

Factor III (Positive, Realistic Orientation) had a positive correlation with personal adjustment for males and a negative correlation for missionaries selected by their colleagues as having effective relationships with nationals. The negative correlation for the factor was probably a function of items 7 and 17 which both had consistently negative correlations. Since these two items functioned somewhat irregularly, it was determined that further study is needed before this factor score can be used with confidence.

Factors and "Task Performance" Ratings

Seven factors correlated at the .05 level with the "Task Performance" rating for one or more groups of missionaries.

The seven factors were as follows:

- I. Approachable
- II. Interculturally Receptive
- III. Positive, Realistic Orientation (this factor needs further study)
- IV. Forthrightness
- IX. Flexibility
- X. Cultural Perspectivism
- XII. Social Confidence

All but the first factor, I (Approachable) correlated positively with task performance. The evidence indicates that doing the task well overseas is facilitated by the following:

- an interest in people from other cultures
- forthrightness
- openness to culture learning
- the capacity to see things from another cultural viewpoint
- being self-assured.

These correlations support the findings of Hawes and Kealey, who state that: "intercultural interaction is needed for transfer of skills to take place" (1979:188). Many of the missionary roles involve the transfer of knowledge and/or technology. The social skills and attitudes reflected in the six factors are necessary and, are therefore predictive of effective task performance by missionaries in inter-cultural contexts.

Factor I (Approachable) correlated negatively with task performance for the missionaries who had not been selected by their colleagues as highly effective in relating to nationals. Furthermore, three items in the factor correlated negatively with task performance for all of the missionaries. The finding was unexpected. It suggested

that establishing contact with others easily is related to poor task performance. The evidence indicates that missionaries who are very sociable are less inclined to be task oriented.

Factors and the "Relationships with Nationals" Rating

The ICS was most predictive of effective relationships with nationals. Of the three performance ratings, the "Relationships with Nationals" rating showed the highest number (6) of correlations at the .05 level with factors. In addition, the "Relationships with Nationals" rating was the only performance rating that correlated at the .05 level with the total factor score. The factors that correlated with the "Relationships with Nationals" ratings were the following:

- II. Intercultural Receptivity
- IV. Forthrightness
- IX. Flexibility
- X. Cultural Perspectivism
- XI. Venturesome
- XII. Social Confidence

The evidence indicates that effective relationships with nationals are related to the following:

- an interest in people from other cultures
- forthrightness
- openness to culture learning
- the capacity to see things from another cultural viewpoint
- an inclination towards the novel and different
- self-assuredness

Four of the above factors resemble the indicators of

effectiveness overseas identified by Hawes and Kealey:

II. Intercultural Receptivity - interested in people, especially people from other cultures

Sensitivity - sensitive to local realities, social, political or cultural (Hawes and Kealey 1979:167).

IV. Forthrightness - acts and speaks out readily.

Flexibility - one of the first to act, make suggestions or propose a plan of action (Hawes and Kealey, 1979:167).

IX. Flexibility - open to culture learning

Flexibility - flexible response to ideas, beliefs or points of view of others; open (Hawes and Kealey, 1979:167).

XII. Social Confidence - tends to be self-assured.

Confidence - expresses and demonstrates self-confidence with regard to personal goals and judgment (Hawes and Kealey, 1979:167).

The Intercultural Competency Scale is most predictive of effective relationships with nationals and less predictive of effective task performance and the personal adjustment of missionaries.

Factors and Performance Ratings for Missionary Subgroups

Four subgroupings within the missionary sample were studied for differences in correlations between their responses to the questionnaire and their field performance ratings. The four subgroups were: males, females, missionaries selected by their colleagues as having highly effective relationships with nationals and missionaries who were not so selected.

Males

The four factors that correlated positively with task performance for men were the following:

- III. Positive, Realistic Orientation (this factor needs further study)
- IV. Forthrightness
- X. Cultural Perspectivism
- XII. Social Confidence

The total factor score also correlated significantly with task performance for men. For male missionaries, doing the task well overseas is related to following indicators:

- forthrightness
- the capacity to understand another cultural viewpoint
- self assuredness

The four factors which correlated at the .05 level and positively for men with effective relationships with nationals were the following:

- II. Intercultural Receptivity
- IX. Flexibility
- X. Cultural Perspectivism
- XII. Social Confidence

Thus, effective relationships with nationals for male missionaries are related to the following indicators:

- being interested in people from other cultures
- being open to culture learning
- having the capacity to understand another cultural viewpoint
- self-assuredness

One other factor correlated positively with personal adjustment for men, III (Positive, Realistic Orientation). That factor needs further study before it can be considered as predictive.

These findings suggest that the scale does contribute

to the prediction of task performance and relationships with nationals for men. Furthermore, it is evident that, of all four subgroups, the scale was most predictive of performance for male missionaries.

Females

Task performance for women correlated positively with Factor IX (Flexibility) which indicates that the missionary woman who is open to culture learning is more likely to do her work well.

The two factors that correlated with effective relationships with nationals for women were Factors IX (Flexibility) and XI (Venturesome). Openness to culture learning and a venturesome spirit are related to building effective relationships with nationals for women. Venturesomeness is important for married women who can chose to remain in the home and associate only with other expatriate women. A more venturesome spirit would be an asset in making contact with nationals.

As was discussed in the section on personal adjustment, Factor IV (Forthrightness) correlated negatively with personal adjustment in women.

The scale shows less predictive capacities for women than it does for men. It is not clear why this was so.

Missionaries Selected by Their Colleagues as
Having Highly Effective Relationships with Nationals

The scale has the same low level predictive power for this group as it does for females. Both groups show only four .05 level correlations with factors.

One factor, IX (Flexibility), correlated positively with task performance for this group suggesting that openness to culture learning facilitated the doing of the task.

Two factors, IX (Flexibility) and XI (Venturesome), correlated positively with relationships with nationals suggesting that for this group, openness to culture learning and an inclination toward the novel and different helps build effective relationships with nationals.

One factor, III (Positive, Realistic Orientation) correlated negatively with personal adjustment for selected missionaries. This factor needs further study before the score can be interpreted with confidence.

Of all four subgroups, the selected group is the most skewed toward intercultural effectiveness. Therefore, it is assumed too little variability existed in this groups' performance ratings to ensure higher correlations with the scale factors.

Missionaries Not Selected by Their Colleagues as
Having Highly Effective Relationships with Nationals

The scale showed the fewest correlations with performance ratings for this group of missionaries. No patterns emerged within the findings.

SUMMARY OF CONCLUSIONS

In summary, it was concluded that:

1. The number of predictive indicators with empirical support warranted the building of an assessment scale.
2. It is feasible to create items, based upon predictive indicators, that function together in factors.
3. Eight of the 12 factors correlated at the .05 level with external performance criteria for intercultural effectiveness.

Other observations:

1. The missionary who is open to learning about the new culture adjusts better to living in a new culture.
2. The missionary who enjoys the novel or the different finds it easier to adjust to a new culture.
3. Effective task performance for missionaries is facilitated by the following:
 - an interest in people from other cultures
 - forthrightness
 - openness to culture learning
 - the capacity to see things from another cultural viewpoint
 - being self-assured.
4. Effective relationships with nationals for missionaries are facilitated by the following:
 - an interest in people from other cultures
 - forthrightness
 - openness to culture learning
 - the capacity to see things from another cultural viewpoint
 - an inclination towards the novel and different
 - being self-assured.
5. The ICS is most predictive of effective relationships with nationals for missionaries and less predictive of effective task performance and personal adjustment.

6. For male missionaries, effective task performance is facilitated by the following:
 - forthrightness
 - the capacity to understand another cultural viewpoint
 - being self-assured.
7. For male missionaries, effective relationships with nationals is related to the following:
 - being interested in people from other cultures
 - being open to culture learning
 - having the capacity to understand another cultural viewpoint
 - being self-assured.
8. The ICS does predict effective task performance and relationships with nationals for men.
9. The ICS was more predictive of field performance for men than for women.
10. Women who tend to be forthright are not perceived as being well adjusted to the foreign environment.
11. For women missionaries, openness to culture learning is related to effective task performance.
12. For women missionaries, openness to culture learning and a venturesome spirit are related to building effective relationships with nationals.

CRITIQUE

The strengths and weakness of the Intercultural Competency Scale itself and the methodology used to develop it merit discussion.

THE INSTRUMENT

The Intercultural Competency Scale contains factors that perform very well. First, specific factor scores are predictive of all three components of intercultural effectiveness: personal adjustment, task performance and

relationships with nationals. The fact that it is most predictive of relationships with nationals is understandable since most of the factors reflect social skills and attitudes. However, research has shown that building solid friendships with nationals is foundational to both of the other components of effectiveness (Hawes and Kealey, 1979). Therefore, the scale predicts the most important component of intercultural effectiveness.

Second, the scale has a substantial research base. All 12 factors have a precedent in earlier research studies. Nine out of 12 factors corresponded to predictors cited by Ruben and Kealey as having an empirical base for being the critical indicators (1983). The other three factors were built upon research studies reported elsewhere (see Table 5.1).

The other four predictive indicators mentioned by Ruben and Kealey that do not correspond with the factors in the scale are: patience/tolerance, technical knowledge, reliability and adaptability (1983:166). The assumption in this study is that the mission agency has other means to screen for technical knowledge. Further, it is difficult to distinguish between patience/tolerance and perseverance which is already represented in the scale, although it needs further research to become functional. Finally, the two indicators, reliability and adaptability might be added with future research on the scale.

TABLE 5.1 Comparison of the Intercultural Competency Scale Factors with Indicators in the Precedent Research Cited in Ruben and Kealey's Summary of the Literature.

ICS (Form D) Factors	Precedent Research Indicators
I. Approachable	Sociable
II. Intercultural Receptivity	Interest in Nationals
III. Positive, Realistic Orientation *	
IV. Forthrightness	Honesty and Frankness
V. Social Openness	Interest in Local Culture (Relationship Building)
VI. Enterprise **	
VII. Shows Respect	Respect
VIII. Perseverance	Perseverance
IX. Flexibility	Flexibility Nonjudgmentalness/Open-minded
X. Cultural Perspectivism	Empathy
XI. Venturesome ***	
XII. Social Confidence	Positive Self-Image Confidence
	Patience/Tolerance Technical Knowledge Reliability Adaptability

* Hawes and Kealey (1979) showed that Positive, Realistic Expectations was one of three predictive indicators for intercultural effectiveness.

** Taft (1977) showed Experimental to be a predictive indicator for intercultural effectiveness.

*** Hawes and Kealey (1979) cited an adventuresome spirit as being predictive for self-ratings of effectiveness but not for colleague and national ratings of effectiveness.

The scale is functioning less well in certain other areas. First, the predictive validity of six of the twelve scales (I, III, V, VI, VII and VIII) needs to be improved through further study. As has been shown in the literature, important indicators are represented by the nonfunctional factors.

Second, most of the significant correlations between the scale and the performance ratings were significant only at the .05 level. The significant correlations ranged from .10 to .42. Confidence in the scale as a predictive instrument would have been increased by higher correlations. However, the lower correlations were a function of the limited range of the missionary sample. Most of the missionaries were effective practitioners who had persisted in their career choice. Consequently, few received a performance rating below '3' on a scale of 1-5. Higher correlations with external criteria require more variability in scores than can be found within such an experienced missionary sample. Therefore, the lower correlations are misleading.

Guilford and Fructer illustrate the statistical problem with a study of pilots during World War II. One group of potential pilots was admitted without the customary screening ($n = 1,036$). A second group, the restricted range group ($n = 136$) was selected from within the unrestricted group. The usual screening procedures were used to select the restricted range group. Validity coefficients computed for

both groups between the screening tests and the graduation-elimination criterion often shrank close to zero ($-.03$ to $.27$) for the restricted range group. However, correlations between the same tests for the unrestricted range group were substantial ($.18$ to $.64$) (1978:325-326). It is safe to assume that the correlations between the ICS and performance ratings would have been somewhat higher had the sample range been less restricted.

Third, presently there is no system in the scale to identify individuals who tend to chose socially desirable responses. People who have studied intercultural communications at all can possibly choose enough high scoring responses to change their true score substantially.

THE METHODOLOGY

The rigorous applications of the methodology contributed to the content and construct validity of the scale. Its concurrent validation with external performance criteria was also an important product of the procedure.

Several difficulties emerged in the process of conducting the study. First, the external performance criteria had to be borrowed from the technology-transfer field because adequate performance criteria for missionaries do not exist.

Second, important indicators were shown to be non-functional in each of the statistical analyses of the field-test data. After the second field-test three factors were

re-created to avoid the loss of important indicators. Five factors were shown not to be functioning well following the last factor analysis and correlative procedures. The non-functioning factors need to be repaired or replaced in a future study of the scale.

Third, the significantly lower performance levels for women indicated a problem in the rating system. Either the men in the field have been better chosen or the raters have been systematically biased.

RECOMMENDATIONS

The scale has shown sufficient predictive validity to merit both limited use as an assessment tool and further study to improve its utility.

FURTHER STUDY

Further research is recommended to discover how well the scale predicts intercultural effectiveness over the long term. Such a study would be beneficial after some preliminary repair has been effected on the nonfunctional factors and the performance rating system adjusted. Adjustments in the rating system should include (1) a level of 'confidence' judgment by the rater/s, (2) more than one rater, (3) a national colleague and/or client rating on each missionary and (4) an indication of the level of closeness of the relationship of the rater to the missionary.

The meaning of intercultural effectiveness for mis-

sionaries should be explored in more depth. More specific criteria for effectiveness in missionaries is needed.

A series of studies exploring the scale's capacity to predict intercultural effectiveness for expatriate groups other than missionaries would broaden its application.

Yet to be answered is the degree to which training can influence the development of the predictive indicators in people.

Finally, more can be discovered about the various situations in which missionaries are asked to function. Differences between intercultural contexts do impact a missionary's level of performance. More should be known about the differences.

RECOMMENDATIONS FOR USE

The factors in the Intercultural Competency Scale that are presently functioning well can be used to assess those predictive indicators in prospective missionaries. Such an assessment will provide useful information to the decision-maker who screens volunteers for foreign assignment. The scale is not intended to replace present screening protocol, but to direct scarce professional time to the individuals that need more careful evaluation.

Furthermore, the Intercultural Competency Scale can suggest learning objectives for training. The objectives can be guided more specifically by factor scores indicating where people are not strong in intercultural competencies.

The Intercultural Competency Scale may be used as a discovery learning technique in the classroom. Upon completing the scale, the trainees would be given immediate feedback on the interpretation of their responses. A climate can be thus created for a discussion of the indicators predictive of intercultural success. The individual feedback from the scale will greatly enhance the relevancy of the material. The trainees will be enabled to apply the insights directly to their own behavior patterns. Such insights will tend to raise a trainee's level of awareness and suggest goals for further personal development.

SUMMARY

The Intercultural Competency Scale has been developed using sound test construction principles. The predictive indicators for intercultural effectiveness have a solid empirical base. The factors in the instrument show stability. Finally, certain factors in the scale demonstrate concurrent validity with external performance criteria for missionaries.

The foundational research on the Intercultural Competency Scale has provided the basis for a much needed assessment instrument. The purpose of the scale is to qualitatively improve the selection and training of missionary personnel.

APPENDICES

APPENDIX A

FACTOR DEFINITIONS AND ITEMS

THE INTERCULTURAL COMPETENCY SCALE (FORM A)

FACTOR DEFINITIONS AND ITEMS
THE INTERCULTURAL COMPETENCY SCALE (FORM A)

TOLERANCE

- A. Tolerance for Ambiguity - the tendency to keep thinking about a problem or trying to understand a situation even though all the helpful information is not available and the cues are unfamiliar.
6. I try not to remain in a strange social situation for very long. (Obvious item. Reverse scored)
37. I prefer listening to a lecture rather than participating in a discussion where the outcome is not known. (Subtle item. Reverse scored)
- B. Openness of Stereotypes - the willingness to admit that one's beliefs and generalizations about a group may not be completely accurate and should be modified if another essential characteristic is discovered.
12. Most ethnic groups have clearly defined characteristics. (Obvious item. Reverse scored)
25. I can usually discover something new that interests me about someone from another culture. (Subtle item)
- C. Freedom from Ethnic Prejudice - no strong feeling against a group of people (or an individual representing that group) that is based on faulty and inflexible generalizations.
18. I much prefer to spend an evening of relaxation with people who share my cultural values. (Obvious item. Reverse scored)
15. People from many primitive societies have a very simple view of the world. (Subtle item. Reverse scored)

D. Reduced Ethnocentrism - a decreased tendency to judge the behavior of all others, regardless of cultural heritage, according to the standards of one's own cultural norms.

30. The developing nations have a great deal to gain by cooperating with the U. S.
(Obvious item. Reverse scored)

38. Calling attention to my differences so that people will ask about them is a good way to get a conversation started. (Subtle item. Reverse scored)

E. Nonjudgmental - the inclination to withhold automatic judgment of the behavior of others until more evidence has accumulated.

11. Some of the most likable people often create a poor first impression. (Obvious item)

39. I find it difficult to relate to someone whose dress is extreme. (Subtle item. Reverse scored)

SENSITIVITY

A. Empathetic - the tendency to sense people's feelings and understand the situation from their point of view.

41. A person who demands loudly to be heard in a group is probably feeling some sort of discomfort.
(Obvious item)

31. I try to remain objective and not get swept into other people's feelings.
(Subtle item. Reverse scored)

B. Shows Respect - treats others in ways that make them feel valued and important.

16. I can always find something upon which to compliment a person. (Obvious item)

21. Some people deserve to be heard more than others.
(Subtle item. Reverse scored)

- C. Good Listener - pays attention to what others are saying and understands what is being said.
 - 40. Good listeners tend to have more friends. (Obvious item.)
 - 8. People find it easy to confide in me. (Subtle item)
- D. Interest in Other Cultures - enjoys learning about groups of people who differ in their beliefs, values and customs.
 - 28. I enjoy a book or movie describing another culture. (Obvious item)
 - 19. I can imagine myself as an anthropologist studying some tribal group. (Subtle item)
- E. Sociable - enjoys being with other people and makes friends easily.
 - 24. I prefer to keep to a small group of friends. (Obvious item. Reverse scored)
 - 44. I prefer to work alone. (Subtle item)

SECURITY

- A. Positive self-image - the belief and feeling that one is a worthwhile, capable human being.
 - 5. I can usually accomplish what I want to do. (Obvious item)
 - 43. I find it difficult to speak of my ideas when they differ from those around me. (Subtle item. Reverse scored)
- B. Shows Initiative - the tendency to start discussions, tackle problems and make contact with others.
 - 36. In a new situation I am usually the first to make a suggestion. (Obvious item)
 - 20. I am often the first to speak to a new member who joins our group. (Subtle item)

- C. Calm in the face of hostility and antagonism - remains composed and objective when confronted by others who are angry with him/her.
 - 48. Although I feel tense when someone is angry with me, I can generally respond rationally. (Obvious item)
 - 45. When someone hotly opposes my ideas I just have to jump in and defend them vigorously. (Subtle item. Reverse scored)
- D. Open and Frank - freely expresses thoughts and feelings within the context of an on-going relationship.
 - 10. I usually say what I feel about an issue or topic of conversation. (Obvious item)
 - 32. It is important always to be tactful even if it means not saying what you feel. (Subtle item. Reverse scored)
- E. Positive, Realistic Pre-Field Expectations - a mindset towards an overseas experience that predicts that one will have some difficulties adjusting but that the overall experience will be enjoyable.
 - 35. I think I could cope with living in another country although I would have to work hard at learning a new language and adapting to new customs. (Obvious item)
 - 3. I doubt that I would have any difficulties at all living and working overseas. (Subtle item. Reverse scored)

FLEXIBLE PERSPECTIVE

- A. Flexible Towards the Beliefs and Ideas of Others - the tendency to view the expressed beliefs and ideas of others as valid even when they differ from his/her own.
 - 34. People should have the freedom to question the most sacred of matters. (Obvious item)
 - 2. Even though I may disagree with some people's values, I can usually understand why they hold them. (Subtle item)

B. Enjoys Problem-Solving - likes the challenge of working out several alternative answers to a new question.

4. There is generally more than one good approach to a serious predicament. (Obvious item)

7. I enjoy working on riddles, crossword puzzles and strategy games. (Subtle item)

C. Broad Categorizer - willing to admit more discrepant pieces of data into the same category.

49. The average width of a window is 34 inches. What do you think is the width of the narrowest window?

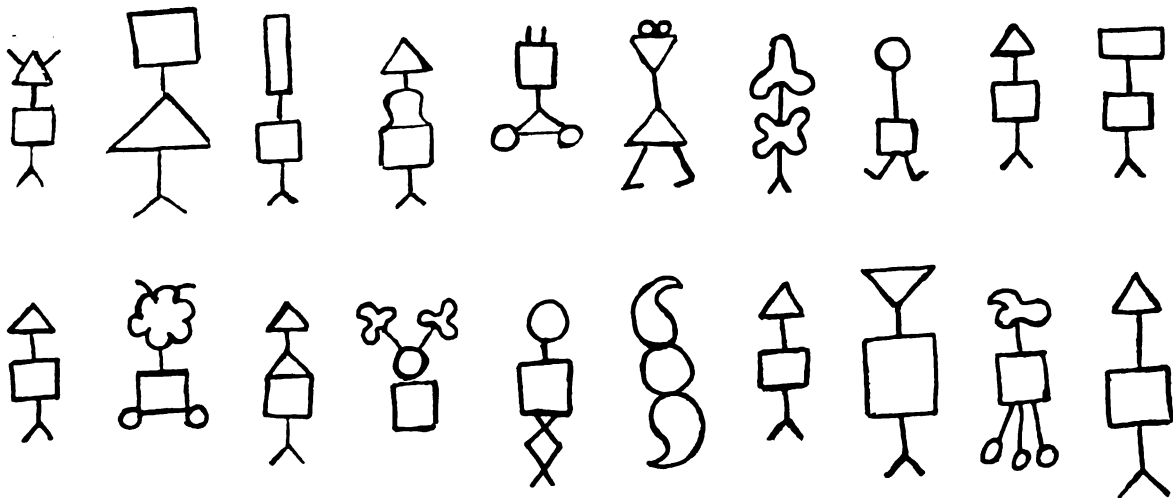
- a. 30 inches b. 18 inches c. 11 inches
d. 3 inches e. 1 inch
(Obvious item)

50. This is a quark.



How many of the following figures can be classified as true quarks?

- a. 5 b. 7 c. 9 d. 11 e. 13
(Subtle item. Reverse scored)



- D. Good Inquiry Skills - tends to read and ask questions frequently that broadens his/her understanding about many aspects of the environment.
 - 22. If I don't understand something I generally can find out about it. (Obvious item)
 - 1. In an unfamiliar city I can always find out how to get where I am going. (Subtle item)
- E. Good Observation Skills - tends to notice things that other people overlook such as, less obvious aspects of the environment, people's nonverbal cues or subtle changes in a setting.
 - 17. I often see things that escape the notice of other people. (Obvious item)
 - 14. I am often one of the first to detect a change in a person's mood. (Subtle item)

ENTERPRISE

- A. Interest in Language - would enjoy learning another language.
 - 29. Learning to speak another language will be a very enjoyable experience for me. (Obvious item)
 - 26. It is fortunate that you can get along in English in most countries of the world. (Subtle item. Reverse scored)
- B. Interest in New Skills - Enjoys the challenge of mastering a new skill.
 - 47. Although I may be awkward at first, I like learning to do something I have never done before. (Obvious item)
 - 33. Mastering a new skill takes a great deal of persistence and effort. (Subtle item. Reverse scored)
- C. Role-Flexibility - Has no difficulty switching between the role of a leader and the role of a follower.
 - 42. In a small group I am just as comfortable being a participant as I am guiding the group. (Obvious item)
 - 13. I find it satisfying to watch someone learn to take the leadership of a group. (Subtle item)

- D. Interest in New Settings - Enjoys traveling and exploring unfamiliar places.
46. There is something rather exciting about being in a place where the sounds, sights and smells are all new to me. (Obvious item)
27. Home is really the only comfortable place after all. (Subtle item. Reverse scored)
- E. Interest in People Who are Different - Enjoys initiating relationships with people who are from a different culture or subculture than his/her own.
23. It can be a very interesting experience getting to know someone whose lifestyle is in direct contrast to my own. (Obvious item)
9. I tend to avoid starting a conversation with someone who seems to have a heavy accent. (Subtle item. Reverse scored)

APPENDIX B

THE INTERCULTURAL COMPETENCY SCALE (FORM A)

QUESTIONNAIRE

Name or number: _____

Sex: Male Female (please circle one)

Age: _____ years

The following questions deal with your interests and feelings about things. There are no right answers. Answer what is true for you. Don't spend much time thinking about each question.

Please answer each question by circling the letters at the right of the item.

SD = Strongly Disagree

D = Disagree

N = Not Sure

A = Agree

SA = Strongly Agree

- | | | | | | |
|---|----|---|---|---|----|
| 1. In an unfamiliar city I can always find out how to get where I am going. | SD | D | N | A | SA |
| 2. Even though I may disagree with some people's values, I can usually understand why they hold them. | SD | D | N | A | SA |
| 3. I doubt that I would have any difficulty at all living and working overseas. | SD | D | N | A | SA |
| 4. There is generally more than one good approach to a serious predicament. | SD | D | N | A | SA |
| 5. I can usually accomplish what I want to do. | SD | D | N | A | SA |
| 6. I try not to remain in a strange social situation for long. | SD | D | N | A | SA |
| 7. I enjoy working on riddles, crossword puzzles and strategy games. | SD | D | N | A | SA |
| 8. People find it easy to confide in me. | SD | D | N | A | SA |
| 9. I tend to avoid starting a conversation with someone who seems to have a heavy accent. | SD | D | N | A | SA |
| 10. I usually say what I feel about an issue or topic of conversation. | SD | D | N | A | SA |
| 11. Some of the most likable people often create a poor first impression. | SD | D | N | A | SA |

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|--|----|---|---|---|----|
| 12. Most ethnic groups have clearly defined characteristics. | SD | D | N | A | SA |
| 13. I find it satisfying to watch someone learn to take the leadership of a group. | SD | D | N | A | SA |
| 14. I am often one of the first to detect a change in a person's mood. | SD | D | N | A | SA |
| 15. People from many primitive societies have a very simple view of the world. | SD | D | N | A | SA |
| 16. I can always find something upon which to compliment a person. | SD | D | N | A | SA |
| 17. I often see things that escape the notice of other people. | SD | D | N | A | SA |
| 18. I much prefer to spend an evening of relaxation with people who share my cultural values. | SD | D | N | A | SA |
| 19. I can imagine myself as an anthropologist studying some tribal group. | SD | D | N | A | SA |
| 20. I am often the first to speak to a new member who joins our group. | SD | D | N | A | SA |
| 21. Some people deserve to be heard more than others. | SD | D | N | A | SA |
| 22. If I don't understand something I can generally find out about it. | SD | D | N | A | SA |
| 23. It can be a very interesting experience getting to know someone whose lifestyle is in direct contrast to my own. | SD | D | N | A | SA |
| 24. I prefer to keep to a small group of friends. | SD | D | N | A | SA |
| 25. I can usually discover something new that interests me about someone from another culture. | SD | D | N | A | SA |
| 26. It is fortunate that you can get along in English in most countries of the world. | SD | D | N | A | SA |
| 27. Home is really the only comfortable place after all. | SD | D | N | A | SA |
| 28. I enjoy a book or a movie describing another culture. | SD | D | N | A | SA |

- | | | | | | |
|--|----|---|---|---|----|
| 29. Learning to speak another language will be a very enjoyable experience for me. | SD | D | N | A | SA |
| 30. The developing nations have a great deal to gain by cooperating with the U. S. | SD | D | N | A | SA |
| 31. I try to remain objective and not get swept into other people's feelings. | SD | D | N | A | SA |
| 32. It is important always to be tactful even if it means not saying what you feel. | SD | D | N | A | SA |
| 33. Mastering a new skill takes a great deal of persistence and effort. | SD | D | N | A | SA |
| 34. People should have the freedom to question the most sacred of matters. | SD | D | N | A | SA |
| 35. I think I could cope with living in another country although I would have to work hard at learning a new language and adapting to new customs. | SD | D | N | A | SA |
| 36. In a new situation I am usually the first to make a suggestion. | SD | D | N | A | SA |
| 37. I prefer listening to a lecture rather than participating in a discussion where the outcome is not known. | SD | D | N | A | SA |
| 38. Calling attention to my differences so that people will ask about them is a good way to get a conversation started. | SD | D | N | A | SA |
| 39. I find it difficult to relate to someone whose dress is extreme. | SD | D | N | A | SA |
| 40. Good listeners tend to have more friends. | SD | D | N | A | SA |
| 41. A person who demands loudly to be heard in a group is probably feeling some sort of discomfort. | SD | D | N | A | SA |
| 42. In a small group I am just as comfortable being a participant as I am guiding the group. | SD | D | N | A | SA |
| 43. I find it difficult to speak of my ideas when they differ from those around me. | SD | D | N | A | SA |
| 44. I prefer to work alone. | SD | D | N | A | SA |
| 45. When someone hotly opposes my ideas I just have to jump in and defend them vigorously. | SD | D | N | A | SA |

- | | | | | | | |
|-----|--|----|---|---|---|----|
| 46. | There is something rather exciting about being in a place where the sounds, sights and smells are all new to me. | SD | D | N | A | SA |
| 47. | Although I may be awkward at first, I like learning to do something I have never done before. | SD | D | N | A | SA |
| 48. | Although I feel tense when someone is angry with me, I can generally respond rationally. | SD | D | N | A | SA |

Circle the letters A, B, C, D, or E in response to the following two questions.

49. The average width of a window is 34 inches. What do you think is the width of the narrowest window?
- A. 30 inches, B. 18 inches, C. 11 inches,
D. 3 inches, E. 1 inch.

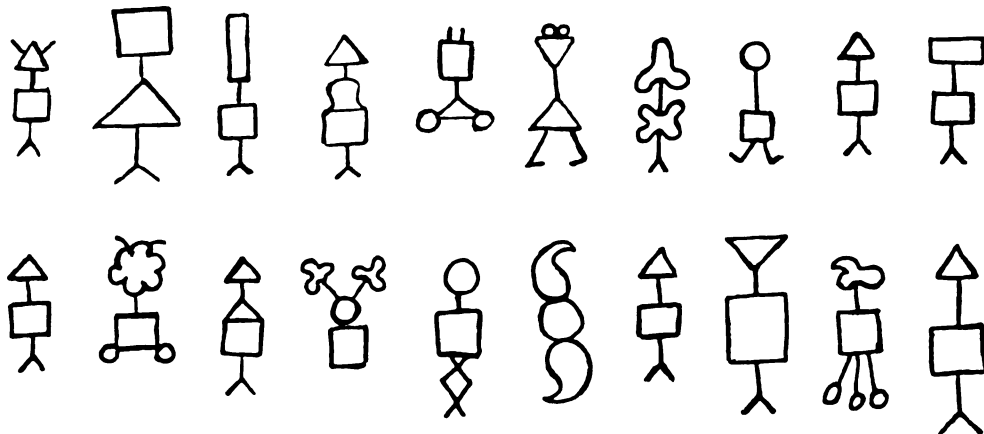
50. This is a quark.



How many of the figures below can be classified as true quarks?

A B C D E

- A. 5 B. 7 C. 9 D. 11 E. 13



THE END

APPENDIX C

FACTOR DEFINITIONS AND ITEMS

THE INTERCULTURAL COMPETENCY SCALE (FORM B)

INTERCULTURAL COMPETENCY SCALE (FORM B)
Factors and Items

TOLERANCE: The inclination to be accepting of people who are different and situations that are ambiguous.

A. Tolerance for Ambiguity - the tendency to keep thinking about a problem or trying to understand a situation even though all the helpful information is not available and the situational cues are unfamiliar.

37. I prefer listening to a lecture rather than participating in a discussion where the outcome is not known. (Subtle item. Reverse scored)

16. I try not to remain in a strange social situation for long. (Obvious item. Reverse scored)

B. Open Stereotypes - the willingness to admit that one's beliefs and generalizations about a group may not be completely accurate and should be modified if another essential characteristic is discovered.

12. Most ethnic groups have clearly defined characteristics. (Obvious item. Reverse scored)

25. I almost always discover something unexpected when meeting a person from another ethnic group. (Subtle item)

C. Freedom from Ethnic Prejudice - no strong feeling against a group of people (or an individual representing that group) that is based on faulty and inflexible generalizations.

18. I much prefer to spend an evening of leisure with people who share my cultural values. (Obvious item. Reverse scored)

15. People from many primitive societies have a very simple view of the world. (Subtle item. Reverse scored)

D. Reduced Ethnocentrism - decreased tendency to judge the behavior of all others (regardless of cultural heritage) according to the standards of one's own cultural norms.

30. The developing nations have a great deal to gain by cooperating with the U. S.
(Obvious item. Reverse scored)

38. Calling attention to my differences so that people will ask about them, is a good way to get a conversation going. (Subtle item. Reverse scored)

E. Nonjudgmental - the inclination to withhold automatic judgment of the behavior of others until more evidence has accumulated.

11. Some of the most likable people often create a poor first impression. (Obvious item)

39. I find it difficult to relate to someone whose dress is extreme. (Subtle item. Reverse scored)

SENSITIVITY: The tendency to be responsive to people and their needs.

A. Empathetic - the tendency to sense people's feelings and understand the situation from their point of view.

41. A person who demands loudly to be heard is a group is probably feeling some sort of discomfort.
(Obvious item)

31. I try to remain objective and not get swept into other people's feelings.
(Subtle item. Reverse scored)

- B. Shows Respect - treats others in ways that make them feel valued and important.
- 6. Some people are so difficult that others are justified in ignoring them.
(Obvious item. Reverse scored)
 - 21. Some people deserve to be heard more than others.
(Subtle item. Reverse scored)
- C. Good Listener - pays attention to what others are saying and understands what is being said.
- 8. Strangers will often confide in me. (Subtle item)
 - 40. Good listeners tend to have more friends.
(Obvious item)
- D. Interest in Other Cultures - enjoys learning about groups of people who differ in their beliefs, values and customs.
- 28. I prefer a book or a movie about the natural wonders in another part of the world to one describing its people.
(Obvious item. Reverse scored)
 - 19. I can imagine myself as an anthropologist studying some different cultural group. (Subtle item)
- E. Sociable - enjoys being with other people and makes friends easily.
- 24. I prefer to keep to a small group of friends.
(Obvious item. Reverse scored)
 - 44. I prefer to work alone.
(Subtle item. Reverse scored)

SECURITY: A self-confidence which is expressed in various behaviors that strengthen relationships with others.

- A. Positive Self-Image - the belief and feeling that one is a worthwhile, capable human being.
 - 5. I feel terribly discouraged when I am criticized by others. (Obvious item. Reverse scored)
 - 43. I find it difficult to speak of my ideas when they differ from those around me. (Subtle item. Reverse scored)
- B. Shows Initiative - the tendency to start discussions, tackle problems and make contact with others.
 - 36. In a new situation I am usually the first to make a suggestion. (Obvious item)
 - 20. I am often the first to speak to a new member who joins our group. (Subtle item)
- C. Calm in the Face of Hostility and Antagonism - remains composed and objective when confronted by others who are angry with him or her.
 - 48. Although I feel tense when someone is angry with me, I can generally respond rationally. (Obvious item)
 - 45. When someone hotly opposes my ideas, I just have to jump in and defend them vigorously. (Subtle item. Reverse scored)
- D. Open and Frank - freely expresses thoughts and feelings within the context of an ongoing relationship.
 - 10. I usually say what I feel about an issue or topic of conversation. (Obvious item)
 - 32. It is important always to be tactful even if it means not saying what you feel. (Subtle item. Reverse scored)

- E. Positive, Realistic Pre-Field Expectations - a mindset towards an overseas experience that predicts that one will have some difficulties adjusting but that the overall experience will be enjoyable.

- 35. I could adjust to living in another culture although language learning and a new life style would be a real challenge. (Obvious item)

- 3. I doubt that I would have any difficulty at all living and working overseas. (Subtle item. Reverse scored)

FLEXIBLE PERSPECTIVE: Cognitive skills that expand understanding and develop insight into experience.

- A. Flexible Towards the Beliefs and Ideas of Others - the tendency to view the expressed beliefs and ideas of others as valid even when they differ from his/her own.

- 34. People should have the freedom to question the most sacred of matters. (Obvious item)

- 2. Most people have logical reasons for their beliefs, even their most extreme beliefs. (Subtle item)

- B. Enjoys Problem-Solving - likes the challenge of working out several alternative answers to a new question.

- 4. When new approaches are needed to solve a difficult problem, I am generally asked to help. (Obvious item)

- 1. I enjoy working on riddles, crossword puzzles and strategy games. (Subtle item)

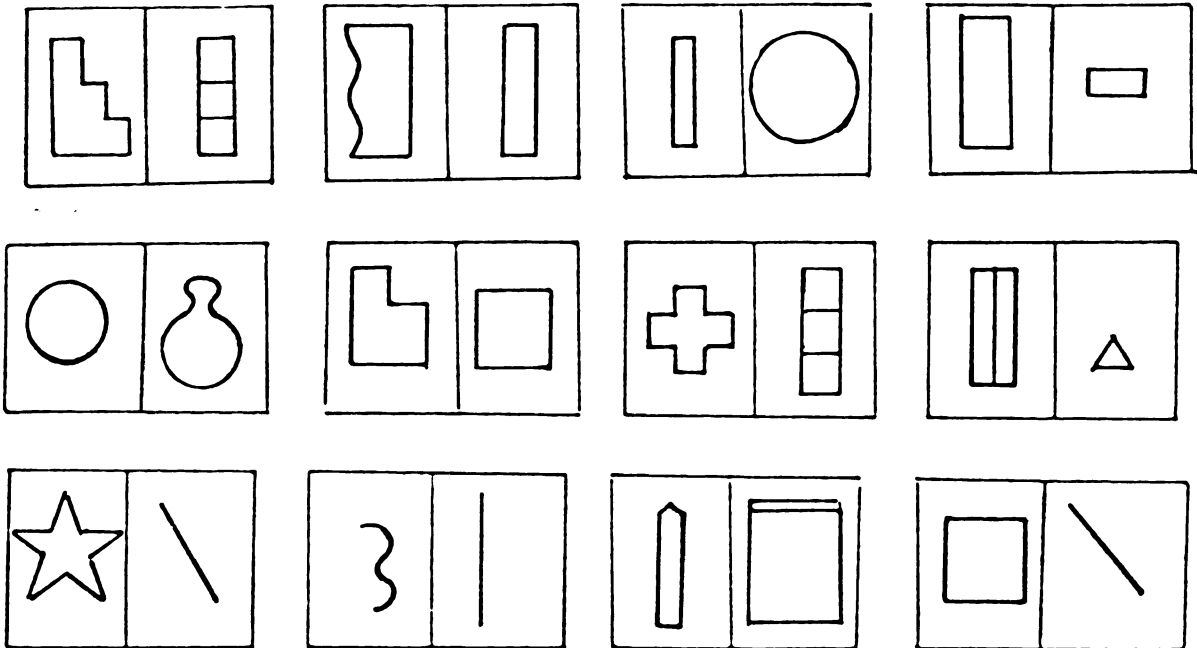
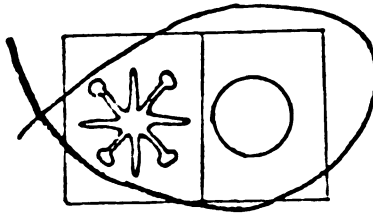
C. Broad Categorizer - sees similarities in divergent pieces of data.

49. The average width of a window is 34 inches. What do you think is the width of the narrowest window?

- A. 30 inches B. 18 inches C. 11 inches
D. 3 inches E. 1 inch

50. Circle all of the following pairs of figures that could not possibly be the same object.

Example:



- D. Curiosity - tends to ask questions frequently that broadens his/her understanding about many aspects of the environment.
22. Whenever I am considering a new project, I generally ask questions and read all I can about it first. (Obvious item)
1. It isn't necessary for me to know all the details before I enter a new situation, I prefer to learn as I go along. (Subtle item. Reverse scored)
- E. Good Observation Skills - tends to notice things that other people overlook such as, less obvious aspects of the environment, people's nonverbal cues or subtle changes in a setting.
17. I regularly see things that escape the notice of others. (Obvious item)
14. I can usually tell when a person is uncomfortable in a group. (Subtle item)

ENTERPRISE: The disposition to attempt the difficult or the untried venture.

- A. Perseverance - the tendency to persist in an undertaking despite difficulty or opposition.
23. I do not give up easily in the face of difficulty. (Obvious item)
33. If a project that I am responsible for does not progress as I had hoped, I would probably resign. (Subtle item. Reverse scored)

- B. Role-Flexibility - The capacity to switch roles at will, especially the roles of leader/follower and teacher/learner.

42. In a small group I am just as comfortable being a participant as I am guiding the group.
(Obvious item)

13. While working in another culture, I may receive more help than I am able to give. (Subtle item)

- C. Adaptable - The capacity to make behavioral changes when required by the environment.

27. The thought of "settling in" to a new community in another state is not very attractive to me.
(Obvious item. Reverse scored)

26. It is fortunate that you can get along in English in most countries of the world.
(Subtle item. Reverse scored)

- D. Experimental - the tendency to try doing things differently in order to improve and develop as a person.

47. In the past year I have learned to perform a couple of new skills very well. (Obvious item)

29. Learning to speak another language will be a very enjoyable experience for me. (Subtle item)

- E. Adventurous in Relationships - the motivation to build relationships with people who are vastly different from him or herself in both their values and lifestyle.

9. Conversations drag for me when the other person has a heavy accent.
(Obvious item. Reverse scored)

46. All other things being equal, if given a choice, I would prefer to visit with a priest in a Hindu temple than a high school teacher from Gambia.
(Subtle item)

APPENDIX D

THE INTERCULTURAL COMPETENCY SCALE (FORM B)

QUESTIONNAIRE

Muriel Elmer

Name: _____

Sex: Male Female (Please circle one)

Age: _____ years

The following questions deal with your interests and feelings about things. There are no right answers. Answer what is true for you. Don't spend much time thinking about each question.

Please answer each question by circling the letters at the right of the item.

SD = Strongly Disagree

D = Disagree

N = Not Sure

A = Agree

SA = Strongly Agree

- | | |
|---|-------------|
| 1. I enjoy working on riddles, crossword puzzles and strategy games. | SD D N A SA |
| 2. Most people have logical reasons for their beliefs, even their most extreme beliefs. | SD D N A SA |
| 3. I doubt that I would have any difficulty at all living and working overseas. | SD D N A SA |
| 4. When new approaches are needed to solve a difficult problem, I am generally asked to help. | SD D N A SA |
| 5. I feel terribly discouraged when I am criticised by others. | SD D N A SA |
| 6. Some people are so difficult that others are justified in ignoring them. | SD D N A SA |
| 7. It isn't necessary for me to know all the details before I enter a new situation, I prefer to learn as I go along. | SD D N A SA |
| 8. Strangers will often confide in me. | SD D N A SA |
| 9. Conversations drag for me when the other person has a heavy accent. | SD D N A SA |
| 10. I usually say what I feel about an issue or topic of conversation. | SD D N A SA |
| 11. Some of the most likable people often create a poor first impression. | SD D N A SA |
| 12. Most ethnic groups have clearly defined characteristics. | SD D N A SA |

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- | | |
|---|-------------|
| 13. While working in another culture, I may receive more help than I am able to give. | SD D N A SA |
| 14. I can usually tell when a person is uncomfortable in a group. | SD D N A SA |
| 15. People from many primitive societies have a very simple view of the world. | SD D N A SA |
| 16. I try not to remain in a strange social situation for long. | SD D N A SA |
| 17. I regularly see things that escape the notice of others. | SD D N A SA |
| 18. I much prefer to spend an evening of leisure with people who share my cultural values. | SD D N A SA |
| 19. I can imagine myself as an anthropologist studying some different cultural group. | SD D N A SA |
| 20. I am often the first to speak to a new member who joins our group. | SD D N A SA |
| 21. Some people deserve to be heard more than others. | SD D N A SA |
| 22. Whenever I am considering a new project, I generally ask questions and read all I can about it first. | SD D N A SA |
| 23. I do not give up easily in the face of difficulty. | SD D N A SA |
| 24. I prefer to keep to a small group of friends. | SD D N A SA |
| 25. I almost always discover something unexpected when meeting a person from another ethnic group. | SD D N A SA |
| 26. It is fortunate that you can get along in English in most countries of the world. | SD D N A SA |
| 27. The thought of "settling in" to a new community in another state is not very attractive to me. | SD D N A SA |
| 28. I prefer a book or a movie about the natural wonders in another part of the world to one describing its people. | SD D N A SA |
| 29. Learning to speak another language will be a very enjoyable experience for me. | SD D N A SA |
| 30. The developing nations have a great deal to gain by cooperating with the U. S. | SD D N A SA |
| 31. I try to remain objective and not get swept into other people's feelings. | SD D N A SA |

- | | |
|---|-------------|
| 32. It is important always to be tactful even if it means not saying what you feel. | SD D N A SA |
| 33. If a project that I am responsible for does not progress as I had hoped, I would probably resign. | SD D N A SA |
| 34. People should have the freedom to question the most sacred of matters. | SD D N A SA |
| 35. I could adjust to living in another culture although language learning and a new life style would be a real challenge. | SD D N A SA |
| 36. In a new situation I am usually the first to make a suggestion. | SD D N A SA |
| 37. I prefer listening to a lecture rather than participating in a discussion where the outcome is not known. | SD D N A SA |
| 38. Calling attention to my differences so that people will ask about them, is a good way to get a conversation going. | SD D N A SA |
| 39. I find it difficult to relate to someone whose dress is extreme. | SD D N A SA |
| 40. Good listeners tend to have more friends. | SD D N A SA |
| 41. A person who demands loudly to be heard in a group is probably feeling some sort of discomfort. | SD D N A SA |
| 42. In a small group I am just as comfortable being a participant as I am guiding the group. | SD D N A SA |
| 43. I find it difficult to speak of my ideas when they differ from those around me. | SD D N A SA |
| 44. I prefer to work alone. | SD D N A SA |
| 45. When someone hotly opposes my ideas, I just have to jump in and defend them vigorously. | SD D N A SA |
| 46. All other things being equal, if given a choice, I would prefer to visit with a priest in a Hindu temple than a highschool teacher from Gambia. | SD D N A SA |
| 47. In the past year I have learned to perform a couple of new skills very well. | SD D N A SA |
| 48. Although I feel tense when someone is angry with me, I can generally respond rationally. | SD D N A SA |

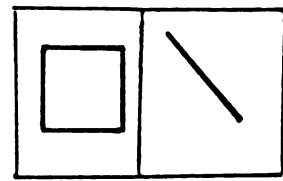
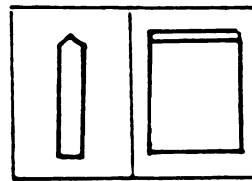
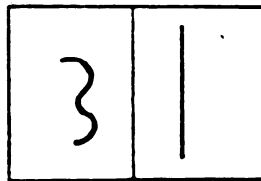
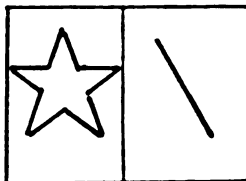
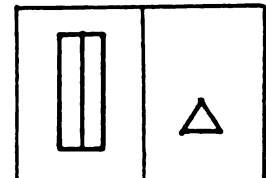
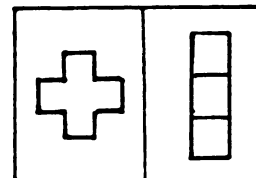
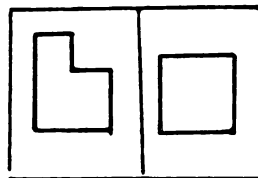
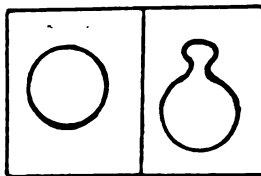
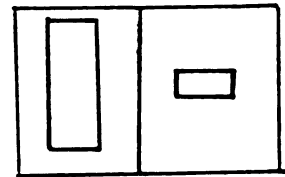
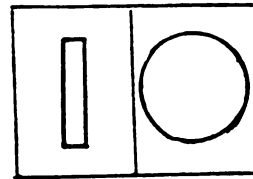
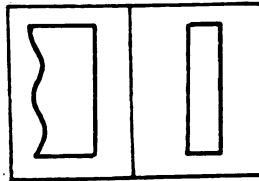
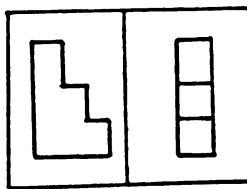
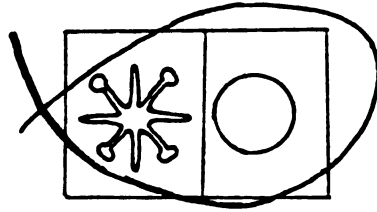
Circle the letters A, B, C, D, or E in response to the next question.

49. The average width of a window is 34 inches. What do you think is the width of the narrowest window?

A. 30 inches, B. 18 inches, C. 11 inches, D. 3 inches, E. 1 inch.

50. Circle all of the following pairs of figures that could not possibly be the same object.

Example:



The End

APPENDIX E

FACTOR DEFINITIONS AND ITEMS

THE INTERCULTURAL COMPETENCY SCALE (FORM C)

FACTOR DEFINITIONS AND ITEMS
THE INTERCULTURAL COMPETENCY SCALE (FORM C)

10 Factors, 44 items in all.
4 items per factor except for 4 factors which
contain 5 items.
26 items (60%) from the Intercultural Competency
Scale (Form B), several of which have been repaired.

FACTOR I: FORTHRIGHTNESS - the tendency to be candid and
without pretense, free from bias or fear.

- 10. I usually say what I feel about an issue or topic of
conversation.
- 43. I find it difficult to speak of my ideas when they
differ from those around me. (Reverse scored)
- 36. In a new situation I am usually the first to make a
suggestion.
- 37. I prefer listening to a lecture rather than par-
ticipating in a discussion. (Reverse scored)

FACTOR II: SOCIAL OPENNESS - the capacity to be comfortable and receptive in a unfamiliar social environment.

- 16. I try not to remain in a strange social situation for long. (Reverse scored)
- 18. I much prefer to spend an evening of leisure with people who share my cultural values. (Reverse scored)
- 27. The thought of "settling in" to a new community in another state is not very appealing to me. (Reverse scored)

New Item:

- 32. I feel free to be myself in a social situation where I am in the minority.

Repaired Item:

- 44. I much prefer to work with people I know well. (Reverse scored)

FACTOR III: CULTURAL PERSPECTIVISM - the capacity to imaginatively enter into another cultural viewpoint.

- 15. People from many primitive societies have a very simple view of the world. (Reverse scored)
- 28. I prefer a book or a movie about the natural wonders in another part of the world to one describing its people. (Reverse scored)
- 30. The developing nations have a great deal to gain by cooperating with the U. S. (Reverse scored)
- 26. It is fortunate that you can get along in English in most countries of the world. (Reverse scored)

Repaired Item:

- 12. People from the same ethnic group tend to think and act alike. (Reverse scored)

FACTOR IV: INTERCULTURAL RECEPTIVITY - the readiness to extend oneself, even to the point of changing ones' behavior, in order to adapt to cultural differences.

All items have had minor repair:

- 29. Learning to speak another language is a very rewarding experience for me.
- 19. I can imagine myself living with and studying some different cultural group.
- 9. Conversations are difficult for me where the other person has a heavy accent. (Reverse scored)
- 2. Most people from other cultures have valid reasons for their beliefs, even their most extreme beliefs.

FACTOR V: ENGAGEMENT - the inclination to interact with people regardless of their differences.

- 6. Some people are so difficult that others are justified in ignoring them. (Reverse scored)
- 21. Some people deserve to be heard more than others. (Reverse scored)

Repaired Item:

- 24. I prefer to spend most of my time with a few well-tried friends rather than a large circle of acquaintances. (Reverse scored)

New item:

- 40. When I listen carefully, I find that everyone has something worth saying.

FACTOR VI: APPROACHABLE - establishes contact with others easily.

20. I am often the first to speak to a new member who joins our group.

8. Strangers will often confide in me.

New Items:

39. I go out of my way to make outsiders feel welcome.

4. People who know me would agree that I make new acquaintances easily.

FACTOR VIII: SOCIAL CONFIDENCE - functions effectively with other people without feeling inferior or threatened.

5. I feel terribly discouraged when I am criticized by others. (Reverse scored)

42. In a small group I am just as comfortable being a participant as I am guiding the group.

Repaired Item:

31. I am generally able to separate my feelings from other peoples' feelings.

New Item:

35. The fear of my co-workers' disapproval rarely keeps me from acting on something.

NEW FACTOR: LOW PREOCCUPATION WITH DIFFICULTIES - the belief that one expects to encounter some problems while living in another culture but also expects to be able to cope with them.

Repaired item:

13. While working in another culture, it may be uncomfortable to receive so much help from others. (Score middle options high)

New items:

3. My children, or anyone I might take with me, would give up some important benefits because of living in another culture. (Score middle options high)
33. Living in another culture can be very difficult for me. (Score middle options high)
25. The difficulties of living in another culture must be accepted if the job is to get done. (Score middle options high)
41. Living in another culture has many more disadvantages than advantages. (Score middle options high)

NEW FACTOR: POSITIVE ORIENTATION - the expectation that one can be a success living and working in another culture without being totally naive about the challenges.

New Items:

11. I think of myself as a person who can do very well working overseas. (Score middle options high)
7. It is easy for me to live and work overseas. (Score middle options high)
17. An overseas assignment is a very rewarding experience for me. (Score middle options high)
22. I have no doubt that I can be effective living and working overseas. (Score middle options high)

NEW FACTOR: ENTERPRISE - the tendency to approach tasks and activities in new and creative ways.

New Items:

- 38. I often remind myself that there is usually a better way to do something if I could just think of it.
- 34. I prefer to work with people who are constantly trying to do something in a new way rather than those who stick to the traditional ways (of doing things).
- 1. I seldom do the same thing exactly the same way twice.
- 14. I prefer to spend my vacations in a new and different place each time rather than return to an old familiar spot year after year.
- 23. When I return to a place where I have been before, I often look for a new route to get there.

APPENDIX F

THE INTERCULTURAL COMPETENCY SCALE (FORM C)

QUESTIONNAIRE

Name: _____

Sex: Male Female (Please circle one)

Age: (circle one)

17-20 years	31-35 years
21-25 years	36-40 years
26-30 years	over 40 years

Years living and/or working in a culture other than your own.
(Circle One)

0-4 years	15-19 years
5-9 years	over 20 years
10-14 years	

Where do you expect to be in one year? _____

Where do you expect to be five years from now? _____

Type of work on the field: _____

The following questions deal with your interests and feelings about things. Answer what is true for you. Don't spend much time thinking about each question.

Please answer each question by circling the letters at the right of the item.

SD = Strongly Disagree
D = Disagree
N = Not Sure
A = Agree
SA = Strongly Agree

1. I seldom do the same thing exactly the same way twice. SD D N A SA

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- | | |
|---|-------------|
| 2. Most people from other cultures have valid reasons for their beliefs, even their most extreme beliefs. | SD D N A SA |
| 3. My children, or anyone I might take with me, would give up many important benefits because of living in another culture. | SD D N A SA |
| 4. People who know me would agree that I make new acquaintances easily. | SD D N A SA |
| 5. I feel terribly discouraged when I am criticised by others. | SD D N A SA |
| 6. Some people are so difficult that others are justified in ignoring them. | SD D N A SA |
| 7. It is easy for me to live and work overseas. | SD D N A SA |
| 8. Strangers will often confide in me. | SD D N A SA |
| 9. Conversations are difficult for me where the other person has a heavy accent. | SD D N A SA |
| 10. I usually say what I feel about an issue or topic of conversation. | SD D N A SA |
| 11. I think of myself as a person who can do very well working overseas. | SD D N A SA |
| 12. People from the same ethnic group tend to think and act alike. | SD D N A SA |
| 13. While working in another culture, it may be uncomfortable to receive so much help from others. | SD D N A SA |
| 14. I prefer to spend my vacations in a new and different place each time rather than return to an old familiar spot year after year. | SD D N A SA |
| 15. People from many primitive societies have a very simple view of the world. | SD D N A SA |
| 16. I try not to remain in a strange social situation for long. | SD D N A SA |
| 17. An overseas assignment is a very rewarding experience for me. | SD D N A SA |

- | | |
|---|-------------|
| 18. I much prefer to spend an evening of leisure with people who share my cultural values. | SD D N A SA |
| 19. I can imagine myself living with and studying some different cultural group. | SD D N A SA |
| 20. I am often the first to speak to a new member who joins our group. | SD D N A SA |
| 21. Some people deserve to be heard more than others. | SD D N A SA |
| 22. I have no doubt that I can be effective living and working overseas. | SD D N A SA |
| 23. When I return to a place where I have been before, I often look for a new route to get there. | SD D N A SA |
| 24. I prefer to spend most of my time with a few well-trying friends rather than a large circle of acquaintances. | SD D N A SA |
| 25. The many difficulties of living in another culture must be accepted if the job is to get done. | SD D N A SA |
| 26. It is fortunate that you can get along in English in most countries of the world. | SD D N A SA |
| 27. The thought of "settling in" to a new community in another state is not very appealing to me. | SD D N A SA |
| 28. I prefer a book or a movie about the natural wonders in another part of the world to one describing its people. | SD D N A SA |
| 29. Learning to speak another language is a very rewarding experience for me. | SD D N A SA |
| 30. The developing nations have a great deal gain by cooperating with the U.S. | SD D N A SA |
| 31. I am generally able to separate my feelings from other peoples' feelings. | SD D N A SA |
| 32. I feel free to be myself in a social situation where I am in the minority. | SD D N A SA |
| 33. Living in another culture can be very difficult for me. | SD D N A SA |

- | | | | | | | |
|-----|---|----|---|---|---|----|
| 34. | I prefer to work with people who are trying to do something in a new way rather than those who stick to the traditional ways (of doing things). | SD | D | N | A | SA |
| 35. | The fear of my co-workers' disapproval rarely keeps me from acting on something. | SD | D | N | A | SA |
| 36. | In a new situation I am usually the first to make a suggestion. | SD | D | N | A | SA |
| 37. | I prefer listening to a good lecture rather than participating in a stimulating discussion. | SD | D | N | A | SA |
| 38. | I often remind myself that there is usually a better way to do something if I could just think of it. | SD | D | N | A | SA |
| 39. | I go out of my way to make outsiders feel welcome. | SD | D | N | A | SA |
| 40. | When I listen carefully, I find that everyone has something worth saying. | SD | D | N | A | SA |
| 41. | Living in another culture has many more disadvantages than advantages. | SD | D | N | A | SA |
| 42. | In a small group I am just as comfortable being a participant as I am guiding the group. | SD | D | N | A | SA |
| 43. | I find it difficult to speak of my ideas when they differ from those around me. | SD | D | N | A | SA |
| 44. | I much prefer to work with people I know well. | SD | D | N | A | SA |
| 45. | I generally find it stimulating to spend an evening of leisure with people from a different culture. | SD | D | N | A | SA |

Among your missionary colleagues, who do you consider to have highly effective relationships with nationals?

Name: _____
First Last

Name: _____
First Last

APPENDIX G

FIELD PERFORMANCE RATING FORM AND
STUDY PROTOCOL

FIELD PERFORMANCE RATING FORM
(To be filled out by the Field Director or Supervisor)

Muriel Elmer

Please rate each missionary presently on the field.
Circle one number in each column for each person.
(See example for John Doe.)

Scale - Very Poor 1 2 3 4 5 Outstanding

Name	Personal Adjustment	Task Performance	Relationships with Nationals
	For example, copes well with day-to-day living. Relates well with other missionaries and rarely complains about the nationals.	For example, is trained for, and is committed to the task. Adapts know-how to the culture	For example, interacts often with nationals. Uses some local language. Shares skills and knowledge with nationals.
Example: John Doe	Low 1 2 3 <u>4</u> 5 High	Low 1 2 3 4 <u>5</u> High	Low 1 <u>2</u> 3 4 5 High
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

INFORMATION ABOUT THIS STUDY

Muriel Elmer

The purpose of this study is to develop a questionnaire that will be helpful to missions.

IT IS MOST IMPORTANT THAT:

1. Each missionary on the field fill out a questionnaire.
2. Each missionary on the field also appear on the performance rating forms.

There should be the same number of names on the rating forms as there are questionnaires.

The names on the questionnaires and rating forms should match each other.

The questionnaires will take only about 15 minutes to fill out. It is suggested that it be done at the beginning of a general meeting.

Please be assured that all names will be held in the strictest of confidence. Upon receipt of the forms, research numbers will be immediately assigned and the names obliterated from the questionnaires and rating forms.

Your careful participation is most appreciated.

Thank you very much.

APPENDIX H

FACTOR DEFINITIONS AND ITEMS FOR
THE INTERCULTURAL COMPETENCY SCALE (FORM D)

INTERCULTURAL COMPETENCY SCALE (FORM D)

Factors and Items

- I. APPROACHABLE - establishes contact with others easily.
- 4. People who know me would agree that I make new acquaintances easily.
 - 20. I am often the first to speak to a new member who joins our group.
 - 39. I go out of my way to make outsiders feel welcome.
 - 8. Strangers will often confide in me.
- II. INTERCULTURAL RECEPTIVITY - interested in people especially people from other cultures.
- 45. I generally find it stimulating to spend an evening of leisure with people from a different culture.
 - 28. I prefer a book or a movie about the natural wonders in another part of the world to one describing its people. (Reverse scored)
 - 19. I can imagine myself living with and studying some different cultural group.
 - 42. In a small group I am just as comfortable being a participant as I am guiding the group.

III. POSITIVE, REALISTIC ORIENTATION - the expectation that one can be a success living and working in another culture without being naive about the challenges.

- 11. I think of myself as a person who can do very well working overseas. (Score middle options higher)
- 22. I have no doubt that I can be effective living and working overseas. (Score middle options higher)
- 7. It is easy for me to live and work overseas. (Score middle options higher)
- 17. An overseas assignment is a very rewarding experience for me. (Score middle options higher)
- 25. The many difficulties of living in another culture must be accepted if the job is to get done. (Score middle options higher)

IV. FORTHRIGHTNESS - acts and speaks out readily.

- 36. In a new situation I am usually the first to make a suggestion.
- 10. I usually say what I feel about an issue or topic of conversation.
- 43. I find it difficult to speak of my ideas when they differ from those around me. (Reverse Scored)
- 37. I prefer listening to a good lecture rather than participating in a stimulating discussion. (Reverse Scored)
- 35. The fear of my co-workers' disapproval rarely keeps me from acting on something.

V. SOCIAL OPENNESS - the inclination to interact with people regardless of their differences.

- 44. I much prefer to work with people I know well.
(Reverse Scored)
- 18. I much prefer to spend an evening of leisure with people who share my cultural values.
(Reverse Scored)

VI. ENTERPRISE - the tendency to approach tasks and activities in new and creative ways.

- 14. I prefer to spend my vacations in a new and different place each time rather than return to an old familiar spot year after year.
- 23. When I return to a place where I have been before, I often look for a new route to get there.
- 34. I prefer to work with people who are trying to do something in a new way rather than those who stick to the traditional ways (of doing things).

VII. SHOWS RESPECT - treats others in ways that make them feel valued.

- 21. Some people deserve to be heard more than others.
(Reverse Scored)
- 6. Some people are so difficult that others are justified in ignoring them. (Reverse Scored)
- 40. When I listen carefully, I find that everyone has something worth saying.

VIII. PERSEVERANCE - the tendency to remain in a situation and feel positive about it even in the face of some difficulties.

- 33. Living in another culture can be very difficult for me. (Score middle options high)
- 16. I try not to remain in a strange social situation for long. (Reverse Scored)
- 13. While working in another culture it may be uncomfortable to receive so much help from others. (Score middle options higher)
- 9. Conversations are difficult for me where the other person has a heavy accent. (Reverse Scored)

IX. FLEXIBILITY - open to culture learning.

- 2. Most people from other cultures have valid reasons for their beliefs, even their most extreme beliefs.
- 29. Learning to speak another language is a very rewarding experience for me.

X. CULTURAL PERSPECTIVISM - the capacity to imaginatively enter into another cultural viewpoint.

- 12. People from the same ethnic group tend to think and act alike. (Reverse Scored)
- 15. People from many primitive societies have a very simple view of the world. (Reverse Scored)
- 30. The developing nations have a great deal to gain by cooperating with the U. S. (Reverse Scored)

XI. VENTURESOME - inclined towards that which is novel or different.

1. I seldom do things exactly the same way twice.
24. I prefer to spend most of my time with a few well-tried friends rather than a large circle of acquaintances. (Reverse Scored)
26. It is fortunate that you can get along in English in most countries of the world. (Reverse Scored)

XII. SOCIAL CONFIDENCE - tends to be self-assured.

31. I am generally able to separate my feelings from other peoples' feelings.
5. I feel terribly discouraged when I am criticized by others. (Reverse Scored)

APPENDIX I

MISSIONARY CANDIDATES' SCORES ON THE INTERCULTURAL
COMPETENCY SCALE (FORM C) COMPARED TO THEIR
FINAL DISPOSITIONS

Missionary Candidate Scores on the Intercultural Competency
Scale (Form C) Compared to Their Final Disposition.

Subject	Score on the ICS (Form C)	Disposition	Reason for Rejection
Upper Half of the Subjects Based Upon the ICS (Form C) scores.			
1	178	Accepted	
2	176	Rejected	Doctrinal
3	175	Rejected	Doctrinal
4	174	Accepted	
5	173	Accepted	
6	172	Accepted	
7	172	Accepted	
8	172	Accepted	
9	171	Accepted	
10	170	Accepted	
11	170	Accepted	
12	169	Accepted	
13	169	Accepted	
14	167	Accepted	
15	167	Accepted	
16	166	Mission Recommended Counseling	
17	166	Rejected	Medical
18	166	Accepted	
19	166	Accepted	
20	165	Accepted	
21	165	Accepted	
22	164	Accepted	
23	164	Accepted	
24	164		
25	164	Accepted	
26	164	Accepted	
27	163	Accepted	
28	163	Accepted	
29	163	Accepted	
30	161	Accepted	
31	161	Accepted	
32	161	Accepted	
33	161	Mission Recommended Counseling	
34	160	Mission Recommended Counseling	
35	160	Accepted	
36	158	Accepted	

Cont'd.

Missionary Candidate Scores on the Intercultural Competency
Scale (Form C) Compared to Their Final Disposition.
(Cont'd.)

Subject	Score on the ICS (Form C)	Disposition	Reason for Rejection
Lower Half of the Subjects Based on ICS (Form C) scores			
37	158	Accepted	
38	158	Accepted	
39	158	Accepted	
40	157	Rejected	Psychological
41	157	Mission Recommended	Counseling
42	157	Accepted	
43	157	Accepted	
44	156	Accepted	
45	156	Accepted	
46	156	Accepted	
47	154	Accepted	
48	154	Mission Recommended	Counseling
49	154	Accepted	
50	153	Mission Recommended	Counseling
51	152	Accepted	
52	152	Accepted	
53	151	Mission Recommended	Counseling
54	151	Accepted	
55	151	Accepted	
56	150	Rejected	Medical
57	150	Rejected	Medical
58	148	Accepted	
59	147	Accepted	
60	147	Accepted	
61	146	Accepted	
62	146	Accepted	
63	144	Accepted	
64	143	Accepted	
65	142	Accepted	
66	141	Accepted	
67	132	Accepted	
68	130	Rejected	Immaturity
69	121	Rejected	Wife of above
70	121	Rejected	Psychological
71	117	Mission recommended	Counseling
72	117	Accepted	

APPENDIX J

TYPE OF WORK FOR THE MISSIONARY SAMPLE

TYPE OF WORK FOR THE MISSIONARY SAMPLE

	%
1. Church Planting	23.9
2. Adminstration	6.4
3. Bookkeeping	1.9
4. Refugee Assistance	.8
5. Office Work	4.2
6. Theological Education	1.1
7. Youth and Children's Work	2.7
8. TV and Radio	5.7
9. Teaching	25.0
10. Hospitality	.9
11. Wife and/or Mother	4.9
12. Medical	6.4
13. Translator	2.7
14. Literature	3.8
15. Support Work	1.9
16. Care and/or Teaching	
Missionary Children	4.5
17. Pilot	.8
18. Agriculture	.4
19. Community Development	.4
20. Chaplain	.4
21. Counseling	1.1

APPENDIX K
SIGNIFICANT CORRELATIONS FOR SUBGROUPS

THE INTERCULTURAL COMPETENCY SCALE (FORM C)
SIGNIFICANT CORRELATIONS BETWEEN ITEMS AND PERFORMANCE RATINGS
AND FACTORS AND PERFORMANCE RATINGS
FOR:

MALE MISSIONARIES

FEMALE MISSIONARIES

MMISSIONARIES SELECTED BY COLLEAGUES AS HAVING HIGHLY EFFECTIVE
RELATIONSHIPS WITH NATIONALS

MISSIONARIES NOT SELECTED BY COLLEAGUES AS HAVING HIGHLY
EFFECTIVE RELATIONSHIPS WITH NATIONALS

SIGNIFICANT CORRELATIONS (.05) FOR ITEMS

Significant Correlations (.05) Between Items from the
Intercultural Competency Scale (Form C)
and Performance Ratings for Male Missionaries

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Item:			
3		-.3149 p = .001	-.2050 p = .016
5		.1634 p = .043	.2021 p = .017
7	-.2129 p = .012	-.2315 p = .007	-.2310 p = .008
9		.2188 p = .010	
11	-.1599 p = .046		
13	-.1628 p = .045	-.2739 p = .002	-.1934 p = .022
14	-.1778 p = .033		
15		.2162 p = .011	.2713 p = .002
19	.1729 p = .034		.1586 p = .048
28		.1696 p = .037	.1580 p = .049
29			.2458 p = .005
35			.1641 p = .043

Cont'd.

Significant Correlations (.05) Between Items from the
Intercultural Competency Scale (Form C)
and Performance Ratings for Male Missionaries (Cont'd.)

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Item:			
37	.1804 p = .029	.2855 p = .001	.2133 p = .012
38	.2032 p = .016		
40		.1621 p = .044	
42			.1722 p = .035
45			.2356 p = .007

See Appendix F for the ICS (Form C)

Significant Correlations (.05) Between Items from the
Intercultural Competency Scale (Form C)
and Performance Ratings for Female Missionaries

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Item:			
1			.1724 p = .018
2	.1466 p = .039		
17		-.1622 p = .024	-.1625 p = .023
19		.1483 p = .035	
22		.1410 p = .043	.1902 p = .010
24			.1691 p = .020
29		.1865 p = .011	.2285 p = .003
45			.1403 p = .045

See Appendix F for the ICS (Form C)

Significant Correlations (.05) Between Items from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Selected* Missionaries

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Item:			
2	.2083 p = .040	.2892 p = .007	.2724 p = .011
3		-.2057 p = .044	
7	-.4177 p = .001	-.2026 p = .043	-.2618 p = .013
12			.2209 p = .032
14			-.2112 p = .041
17	-.2271 p = .027		-.2352 p = .023
21		-.2852 p = .008	
25	.2552 p = .015		.1993 p = .047
37			.2554 p = .015
39		-.2170 p = .34	
43	-.2758 p = .009		

* Selected Missionaries = Missionaries selected by their colleagues as having highly effective relationships with nationals.

See Appendix F for the ICS (Form C)

Significant Correlations (.05) Between Items from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Unselected* Missionaries

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Item:			
3		-.1337 p = .034	
5			.1547 p = .017
14	-.1670 p = .010		
15			.1233 p = .044
16	-.1544 p = .016	-.1409 p = .025	
19		.1228 p = .044	
22			.1261 p = .041
24	.1427 p = .024		
27	-.1218 p = .046		
29			.1855 p = .005

Cont'd.

Significant Correlations (.05) Between Items from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Unselected* Missionaries (Cont'd.)

Performance Ratings		
	Personal Adjustment	Task Performance
Item:	Relationships with Nationals	
35		.1552 p = .016
42		.1266 p = .040
45		.1498 p = .020

* Unselected Missionaries = Missionaries not selected by
their colleagues as having highly effective relation-
ships with nationals.

See Appendix F for the ICS (Form C)

SIGNIFICANT CORRELATIONS (.05) FOR FACTORS

Significant Correlations (.05) Between Factors from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Male Missionaries.

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Factor:			
II Intercultural Receptivity			.2976 p = .001
III Positive, Realistic Orientation	-.1834 p = .027	-.1828 p = .027	
IV Forthrightness		.2341 p = .009	
IX Flexibility			.1698 p = .038
X Cultural Perspectivism		.1812 p = .030	.2316 p = .008
XII Social Confidence		.1961 p = .020	.1842 p = .027
Total Factor Score		.2206 p = .020	.2540 p = .009

See Appendix H for ICS (Form C) factors and items based upon the second factor analysis (omitting item 41).

Significant Correlations (.05) Between Factors from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Female Missionaries.

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Factor:			
IV Forthright- ness	-.1430 p = .044		
IX Flexibility		.1960 p = .009	.2176 p = .004
XI Venturesome			.2437 p = .002

See Appendix H for ICS (Form C) factors and items based upon
the second factor analysis (omitting item 41).

Significant Correlations (.05) Between Factors from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Selected* Missionaries.

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
Factor:			
III Positive, Realistic Orientation	-.2089 p = .039		
IX Flexibility		.2531 p = .017	.3163 p = .004
X Cultural Perspectivism			.2316 p = .028

* Selected missionaries = missionaries selected by their colleagues as having highly effective relationships with nationals.
See Appendix H for the ICS (Form C) factors and items based upon the second factor analysis (omitting item 41).

Significant Correlations (.05) Between Factors from the
Intercultural Competency Scale (Form C) and
Performance Ratings for Unselected* Missionaries.

Performance Ratings			
	Personal Adjustment	Task Performance	Relationships with Nationals
<hr/>			
Factor:			
I		-.1289	
Approachable		p = .038	
II			.1534
Intercultural			p = .018
Receptivity			

* Unselected missionary = missionaries who were not selected by their colleagues as having highly effective relationships with nationals.
See Appendix H for the ICS (Form C) factors and items based upon the second factor analysis (omitting item 41).

APPENDIX M
STAGE TWO RATIONALE

Item 23 had loaded on Factor VI (Enterprise).

Item 23 in Context of Factor VI (Enterprise)

Performance Ratings: P = Personal Adjustment
 T = Task Performance
 R = Relationships with Nationals

Missionary Groups:

W = Whole Sample S = Selected By Colleagues
 M = Males U = Unselected By Colleagues
 F = Females (-) = Negative Correlations

Item	Loading	Significant Correlations				
		W	M	F	S	U
14	.53371	-P, -R	-P		-R	-P
23	.37696					
34	.35343	P				

Item 23 loads fairly well on Factor VI, but does not contribute anything to the correlations with the performance ratings. Item 14 loads positively on Factor VI but correlates negatively with two performance ratings. It would appear that the person who enjoys the new and different vacation place also tends to be the missionary who neither adjusts well or builds lasting relationships with nationals. However, the positive correlation for item 34 with the

"Personal Adjustment" rating would suggest that people who admire innovativeness tend to adjust better. Given the strong correlations with item 14 and the one correlation with item 34, it was determined to reverse the scoring for item 14, retain item 34 and 23 in Factor VI (Enterprise) in the new instrument. To remove item 23 which loads so well on the factor may disturb the integrity of the factor. Even though the factor score showed no significant correlations with performance ratings in the present study, it does appear to have the potential for correlating significantly in a future study.

Item 30 had loaded on Factor X (Cultural Perspectivism)

Item 30 in Context of Factor X (Cultural Perspectivism)

Performance Ratings: P = Personal Adjustment
 T = Task Performance
 R = Relationships with Nationals

Missionary Groups:

W = Whole Sample S = Selected By Colleagues
 M = Males U = Unselected By Colleagues
 F = Females (-) = Negative Correlations

Item	Loading	Significant Correlations				
		W	M	F	S	U

12	.44686				R	
15	.39804	T,R	T,R			R
30	.33512					

Item 30 loads above .3 on Factor X (Cultural Perspectivism) although it does not contribute anything to the correlative power of the factor. Item 12 correlated positively with the "Relationships with Nationals" rating for missionaries selected by their colleagues as having highly effective relationships with nationals. The item indicates that those missionaries who are less likely to stereotype people from an ethnic group will relate well with nationals. Item 15 also loaded well on Factor X and correlated positively at

several points with task performance and relationships with nationals. The item suggests that the missionary who does not devalue the world view of "primitive societies" tends to be better at accomplishing his or her task and relating to nationals. Since item 30 loads well, and the factor correlates significantly with performance ratings, it was decided to retain it to protect the integrity of the factor.

Item 33 loaded above .5 on Factor VIII (Perseverance)

Item 33 in Context of Factor VIII (Perseverance)

Performance Ratings: P = Personal Adjustment
 T = Task Performance
 R = Relationships with Nationals

Missionary Groups:

W = Whole Sample S = Selected By Colleagues
 M = Males U = Unselected By Colleagues
 F = Females (-) = Negative Correlations

Item	Loading	Significant Correlations				
		W	M	F	S	U

33	.51674					
16	.30340		-T			-P, -T
13	.28280					-T (.089)
9	.27688			T		

Item 33 does not correlate significantly with performance ratings even at the .01 level. However, it controls the entire factor since it loads highest. Item 16, which correlates negatively suggests that the missionary who avoids strange situations tends to adjust in a foreign environment and tends to get the task done. Such a finding is hard to explain. Item 13 doesn't correlate with performance ratings at the .05 level. It does correlate negatively at .0977 ($p = .089$) for the unselected group with task performance. It

suggests that receiving help from others in another culture might be difficult for those who get the task done. However, scored with the middle options high and loading negatively, item 13 does not strengthen the factor. Item 9 suggests that missionaries who are not distracted by heavy accents tend to get the task accomplished. Factor VIII (Perseverance) is not a positive correlate for performance ratings at the present time. Further study is needed if it is to be useful in the instrument.

APPENDIX N

CORRELATIONS FOR 25 "OBVIOUS-SUBTLE" ITEM PAIRS
ON THE INTERCULTURAL COMPETENCY SCALE (FORM B)

Pearson Correlation Coefficients for the 25
"Obvious-Subtle" Item Pairs in the ICS (Form B)

	Items	Coefficient
Factor: Tolerance		
Tolerance for Ambiguity	16 & 37	.1927
Openness of Stereotypes	12 & 25	-.0047
Freedom from Ethnic Prejudice	18 & 15	.1681
Reduced Ethnocentrism	30 & 38	-.0142
Nonjudgmental	11 & 39	-.802
Factor: Sensitivity		
Empathetic	41 & 31	.0541
Shows Respect	16A-6B * & 21	.3259
Good Listener	40 & 8	.1932
Interest in Other Cultures	28 & 19	.1660
Sociable	24 & 44	.2843
Factor: Security		
Positive Self-Image	5 & 43	.2683
Shows Initiative	36 & 20	.3141
Calm in the Face of Hostility and Antagonism	48 & 45	.0318
Open and Frank	10 & 32	.1385
Positive, Realistic Pre- Field Expectations	35 & 3	.0079
Factor: Flexible Perspective		
Flexible Towards the Beliefs and Ideas of Others	34 & 2	-.0504
Enjoys Problem-Solving	4 & 7A-1B *	.0025
Broad Categorizer	49 & 50	.1003
Curiosity	22 & 7	.1747
Good Observation Skills	17 & 14	not computed #

Cont'd.

* These item numbers indicate the item position in both the ICS (Form A) and the ICS (Form B).

However, the correlation coefficient in the correlation matrix on the first factor analysis was .35612

For the factor definitions and the wording of the items see Appendix C.

Pearson Correlation Coefficients for the 25
"Obvious-Subtle" Item Pairs in the ICS (Form B)

	Items	Coefficient
Factor: Enterprise		
Perseverance	23 & 33	.2994
Role Flexibility	42 & 13	.0706
Adaptable	27 & 26	.1347
Experimental	47 & 29	.0635
Adventurous in Relationships	9 & 46	.0629

For the factor definitions and the wording of the items see
Appendix C.

APPENDIX P

YEARS SPENT BY MISSIONARIES IN ANOTHER CULTURE

COMPARED WITH PERFORMANCE RATINGS

Comparison of Personal Adjustment Rating and
Years in Another Culture

Years in Another Culture	n	Mean for Personal Adjustment
0 - 4 years *	42	3.3810
5 - 9 years **	54	3.6481
10 - 14 years ***	40	4.1250
15 - 19 years ^	39	3.8462
over 20 years ^^	85	3.8706

* showed a significant difference (.05) from ***, ^, and ^^
 ** showed a significant difference (.05) from ***

Comparison of Task Performance Rating and
Years in Another Culture

Years in Another Culture	n	Mean for Task Performance
0 - 4 years *	42	3.7143
5 - 9 years **	54	3.7407
10 - 14 years ***	40	4.1750
15 - 19 years ^	39	4.1026
over 20 years ^^	85	4.1529

* showed a significant difference (.05) from *** and ^^
 ** showed a significant difference (.05) from *** and ^^

Comparison of the Relationships with Nationals Ratings
and Years in Another Culture

Years in Another Culture	n	Mean for Relationships with Nationals
<hr/>		
0 - 4 years *	42	3.5714
5 - 9 years **	54	3.6981
10 - 14 years ***	40	4.0000
15 - 19 years ^	39	4.0000
over 20 years ^^	85	4.1176
* showed a significant difference (.05) from ^^		
** showed a significant difference (.05) from ^^		

APPENDIX R

FIELD TEST OF THE INTERCULTURAL COMPETENCY SCALE (FORM A) PRETEST AND POSTTEST SCORES

Pretest and Posttest Scores on the Field Test of the
Intercultural Competency Scale (Form A)

Subject	Pretest	Rank	Posttest	Difference in Points
<u>Upper Third</u>				
F.G.*	201	1	211	+10
C.A.	193	2	no posttest	
U.M.	192	3	183	- 9
R.A.	188	4	187	- 1
S.R.	187	5	178	- 9
R.J.	185	6.5	182	- 3
N.N.	185	6.5	188	+ 3
L.A.	183	8	187	+ 5
C.N.	182	9	190	+ 8
L.G.	181	10	188	+ 7
C.U.	180	11	176	- 4
<u>Middle Third</u>				
N.P.	176	13	174	- 2
D.T.	176	13	192	+16
R.D.	176	13	185	+ 9
C.C.	175	15.5	191	+16
O.S.	175	15.5	172	- 3
N.B.	174	17.5	171	- 3
K.B.	174	17.5	184	+10
T.N.	173	19.5	185	+12
G.S.	173	19.5	194	+21
B.C.	171	21.5	177	+ 6
N.I.	171	21.5	171	0
R.Y.	169	23	167	- 2
<u>Lower Third</u>				
G.K.	168	24	178	+10
O.A.	167	25.5	168	+ 1
D.N.	167	25.5	174	+ 7
F.O.	166	27	162	- 4
J.R.	165	28	174	+ 9
R.E.	159	29	158	- 1
E.B.	155	30	158	+ 3
C.V.	154	31	172	+18
F.H.	151	32	163	+12
L.O.	149	33	161	+12
Y.I.	148	34.5	157	+ 9
R.V.	148	34.5	157	+ 9

Total gain on the posttest by the upper third = 18 points

Total loss on the posttest by the upper third = 22 points

Total gain on the posttest by the lower third = 72 points

Total loss on the posttest by the lower third = 1 point

* Note: the subject initials have been changed.

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