THE INTERCULTURAL COMMUNICATION MOTIVATION SCALE: AN INSTRUMENT TO ASSESS MOTIVATIONAL TRAINING NEEDS OF CANDIDATES FOR INTERNATIONAL ASSIGNMENTS

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The Intercultural Communication Motivation Scale (ICMS) is a tool to assess the intercultural communication motivation of candidates for international assignments. The ICMS performed well in four studies conducted with undergraduate students in New Zealand, the United States, the United Arab Emirates, and Germany. Generally showing a stable five-factor structure, high test-retest correlations, very high Cronbach's alphas, and almost no social desirability bias in self and peer evaluations, the ICMS is sensitive enough to detect test-retest differences. Thus, socially responsible strategic international HR programs can use this scale to reliably evaluate employees and their families for specific international locations. © 2009 Wiley Periodicals, Inc.

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Trade liberalizations, deregulation, change, and competition characterize today's tumultuous global economic environment. Organizations react to these transformations by reconfiguring the structure of work and labor arrangements (Schippmann et al., 2000). Multinational enterprises (MNEs) that strive to take a global orientation attempt to adjust their human resource strategy to support these corporate developments and adopt a strategic international human resource management (SIHRM) perspective. In some MNEs the SIHRM function is primarily charged...
with recruiting, selecting, and training suitable candidates to fill international posts.

Selection of expatriates based on their motivational strength and training them to overcome their motivational deficiencies represent a socially responsible SIHRM approach. Currently, IHRM professionals are at a loss when they attempt to fulfill their company’s social responsibility to select candidates and assess the training needs of future and current expatriates. The World Business Council for Sustainable Development (1999) defines corporate social responsibility as “the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large” (p. 3).

Adopting an IHRM perspective on corporate social responsibility means that MNEs need to protect their human capital (expatriates and their families and host culture employees) against any type of harm and loss. Human capital could be harmed by loss of self-esteem, anxiety, and stress because of insufficient levels of intercultural competence, which can lead to physical and psychological illness. This might result in limited success and reduced productivity in the assignment. Harm could also spill over from home to work, or vice versa, and negatively affect expatriates’ private and, consequently, work life, as described by Caligiuri, Hyland, Joshi, and Bross (1998). Human capital loss could occur as voluntary or forced turnover, either during or after the assignment, because of lack of success on the international job or because expatriates believe that the assigning MNEs did not fulfill their part of the psychological contract. Kupka (2003) finds that voluntary turnover rates can reach 20% within one year after the assignment. Not illuminated is the side of host culture employees, who have been insufficiently researched. Yet the norm of reciprocity suggests that locals ought to experience similarly negative consequences.

As part of a socially responsible SIHRM program, a fair and thorough selection process and the provision of intercultural communication training enable expatriates to work effectively and efficiently during international assignments (Caligiuri & Tarique, 2006; De Cieri & Dowling, 2006). The accurate assessment of future expatriates’ strengths and weaknesses is crucial to the implementation of sound selection methods and intercultural communication training programs that serve expatriates’ particular needs (Earley & Peterson, 2004; Littrell & Salas, 2005; Tarique & Caligiuri, 2004). Intercultural communication motivation (ICM) deserves specific attention because only sufficient motivation enables trainees to apply their knowledge and skills appropriately and effectively (Spitzberg, 2000).

Numerous scholars have identified motivation as a central component of intercultural communication competence (ICC; Gertsen, 1990; Spitzberg, 2000; Wiseman, 2002). The motivation to communicate across cultural borders is particularly important for expatriates who frequently engage in face-to-face interactions (Black & Mendenhall, 1989). The process of intercultural communication, however, poses the risk of heightened uncertainty and ambiguity, resulting in high levels of anxiety (Gudykunst, 2005). As a consequence, mutual misunderstandings with negative impressions of individuals and their culture can occur when individuals from different cultural backgrounds who are not interculturally competent communicators interact (Hammer, Nishida, & Wiseman, 1996).

Hammer, Gudykunst, and Wiseman (1978) suggest that intercultural communication motivation is one of the major criteria of intercultural communication competence. They state that “sojourners who are able to establish meaningful relationships with people from the host culture are more likely, it would appear, to integrate themselves into the social fabric of the host culture and to more effectively satisfy their own basic needs and concerns of friendship, intimacy, and social interaction” (p. 390). Caligiuri (2000a, 2000b) agrees and argues that expatriates who are motivated to establish intercultural
relationships with both host nationals and other international assignees tend to adapt more quickly to the host culture, to be more productive during their sojourn, and to complete their missions successfully. De Cieri and Dowling (2006) suggest that managers who act in the context of global assignments need to engage less in competitive practices as the foundation of their relationships with organizational environments and more in cooperative efforts in networks and alliances through which value is added and competitive advantages are gained. The scholars argue that these connections are established through interpersonal relationships, built on trust, and maintained through long-term, pervasive, nonbinding social contracts among corporate stakeholders from home and host countries. De Cieri and Dowling (2006) and Johnson and Cullen (2002) point out the particular importance of trust in these relationship webs and agree with Tung (2002) that global organizations need to select and retain employees who are motivated to develop, maintain, and extend a network of mutually satisfying relationships among stakeholders through collaborative work. Only then can they be perceived as competent intercultural communicators, appear trustworthy, and positively contribute to the corporate bottom line.

Many international assignees will require training to become motivated to communicate interculturally. If provided at important points during the expatriation process (preparation, expatriation, repatriation), intercultural communication training can help improve expatriates’ intercultural communication competence (Bennett, Aston, & Colquhoun, 2000; Black & Mendenhall, 1990; Black, Mendenhall, & Oddou, 1991; Black & Gregersen, 2000; Bolten, 2001; Brewster & Pickard, 1994; Brislin, 1989; Earley, 1987; Kühlmann, 2001; Mendenhall, 2001; Mendenhall & Oddou, 1986; Mendenhall & Stahl, 2000; Ronen, 1989; Scullion & Brewster, 2001; Selmer, 1995; Stahl, Miller, Einfalt, & Tung, 2000; Tung, 1981, 1982, 1987, 1988, 1998). Earley and Peterson (2004) state that training can address identified motivation deficiencies. In the training process international assignees can acquire knowledge and skills to manage their attitudes and emotions toward other cultures (Gudykunst, Guzley, & Hammer, 1996). In particular, anxiety can be reduced and trust and self-efficacy enhanced through training programs, resulting in improved intercultural communication competence (Caligiuri & Tarique, 2006; Gudykunst, 1992, 2005).

Despite the long history of research on and advances in training as a corporate HR tool for ICC enhancement, a gap still exists in the operationalization and testing of valid tools to assess training needs and effectiveness (Johnson, Lenartowicz, & Apud, 2006; McCroskey, 1993). Because of an inappropriate focus on technical expertise as the main criterion for international assignment selection (Clegg & Gray, 2002; Harvey & Novicevic, 2001; Tung, 1981, 1982), and because HR offices have limited or no influence on selection decisions in many MNEs (Halcrow, 1999; Swaak, 1995), there is a dearth of sophisticated and relevant HR selection methods. Caligiuri and Tarique (2006) call for a concerted effort by academics and HR practitioners to develop evaluation tools and methods to conduct a more thorough selection process and cultivate a true SIHRM approach. The implementation of sound selection methods is crucial to the accurate assessment of future and current expatriates’ strengths and weaknesses because it enables the accurate assessment of future expatriates’ strengths and weaknesses is crucial to the implementation of sound selection methods and intercultural communication training programs that serve expatriates’ particular needs (Earley & Peterson, 2004; Littrell & Salas, 2005; Tarique & Caligiuri, 2004). Intercultural communication motivation (ICM) deserves specific attention because only sufficient motivation enables trainees to apply their knowledge and skills appropriately and effectively (Spitzberg, 2000).
global corporations’ international HR function to construct tailor-made training programs that serve the particular needs of employees (Earley & Peterson, 2004; Littrell & Salas, 2005; Tarique & Caligiuri, 2004) and can “enhance the participants’ intercultural competence” (Gertsen, 1990, p. 351). A needs assessment process ought to be a central part of any training course (Gudykunst et al., 1996) and should be conducted using a psychometrically sound instrument, allowing MNEs’ human resource personnel to make educated decisions on whom to select for international assignments and how to train future expatriates and their partners. Caligiuri and Phillips (2003) propose that “an objective self-assessment tool for global assignments should enhance an individual’s self-efficacy for a global assignment” (p. 1106).

This article contributes to the development of relevant SIHRM tools for selecting and training expatriates and, thus, narrows the gap between research and SIHRM reality. The focus of this research is on intercultural communication motivation because of its relevance to the transfer of knowledge and skills from training contexts to international mission contexts. In the following sections, the ontological origins of ICM are investigated and a tool to measure it, the Intercultural Communication Motivation Scale (ICMS), is introduced. The epistemological approach of this article is interdisciplinary, integrating theoretical influences from a multitude of academic domains, including SIHRM, communication, psychology, and sociology. In building this conglomerate of theories, we answer the call for multidisciplinary research to enhance the understanding of the issues involved in SIHRM (De Cieri & Dowling, 2006).

The Ontology of Intercultural Communication Motivation

Motivation has been recognized as a central factor of intercultural communication competence in communicative interactions (Bolten, 2001; Hammer et al., 1996; Imahori & Lanigan, 1989; Martin, 1993; Spitzberg, 2000; Wiseman, 2002). Intercultural communication motivation is defined as “the set of feelings, intentions, needs, and drives associated with the anticipation of or actual engagement in intercultural communication” (Wiseman, 2002, p. 211). Previous research findings suggest it consists of three elements: anxiety, trust, and self-efficacy. These are related to two of the Big Five personality characteristics—emotional stability (anxiety and trust) and extroversion (self-efficacy)—which repeatedly have been linked to expatriate success (Caligiuri, 2000a, 2000b). Wiseman (2002) suggests that an individual may be skilled and knowledgeable, but anxiety and trust issues can negatively affect his or her perception of other cultures and inhibit communication across cultural boundaries. The resulting avoidance of interaction will reduce the effectiveness of the expatriate in the international assignment. To overcome this apprehension, expatriates and their partners need high levels of trust and self-efficacy to take the initiative to approach host culture natives actively to achieve organizational goals. The three ontological roots of ICM are outlined in the following.

Anxiety

Bandura (1997) defines anxiety as “a state of anticipatory apprehension over possible deleterious happenings” (p. 137). Anxiety has long been a matter of academic interest in various fields, particularly in the disciplines of teaching, training, and performance management. One result of this research is Gudykunst’s (2005) anxiety and uncertainty management theory. Gudykunst (2005) states that “interacting with strangers is characterized by anxiety and uncertainty” (p. 285). Strangers, according to Collier and Thomas (1988), are those whose cultural identity is
saliently different from one’s own identity in the specific interaction context. This perceived deviance from the cultural norms of the in-group creates uneasiness, tension, communication apprehension and avoidance, and anxiety because of the associated uncertainty about relevant rules, goals, involved processes, interaction outcomes, and potentially negative consequences (Duronto, Nishida, & Nakayama, 2005; Gudykunst, 2005; Stephan & Stephan, 1985). Communicators fear four negative repercussions in intergroup communication: 1) threats to their self-identity, 2) harmful behavioral consequences, 3) undesirable evaluations by members of the out-group, and 4) undesirable evaluations by members of the in-group (Stephan & Stephan, 1985). Nevertheless, intercultural contexts also invoke a natural curiosity. In fact, Gudykunst (2005) argues that humans need moderate amounts of uncertainty and anxiety to be sufficiently and nonthreateningly motivated to engage in communicative exchanges.

To overcome the inherent ambiguity of such situations, manage the resulting anxiety, reaffirm identities, regulate the relationship, and achieve homeostasis and group inclusion, expatriates need to engage in communicative information-seeking acts that reduce the predictive uncertainty (Berger, 1979; Gudykunst, 2005) if the context requires it. The need to manage uncertainty, however, is influenced by cultural conventions and individual factors, such as tolerance for ambiguity (Gudykunst, 2005; Hofstede, 2001). Successful anxiety and uncertainty management in interactions with strangers is associated with the development of trust—that is, positive expectations of rewarding interactive outcomes (Gudykunst, 2005); increased empathy—that is, cognitive and emotional perspective taking (Stephan & Stephan, 1992); heightened attraction to and respect for strangers; decreased communication apprehension and avoidance; and an appreciation for interdependence with strangers as well as their cultural difference (Duronto et al., 2005; Gudykunst, 2005).

In summary, anxiety caused by uncertainty through unfamiliarity with the behavioral rules in foreign environments “narrows the focus of attention” and “feeds ethnocentrism” (Stephan & Stephan, 1985, pp. 167–168). Therefore, we suggest that SIHRM combats anxiety in expatriates and their partners through the provision of tailor-made intercultural communication training that raises their levels of ICM. Lower anxiety allows international assignees to engage in intercultural exchanges in a more motivated fashion and can facilitate the creation of mutually trusting and satisfying relationships with host culture natives. These relationships can lead to an extension of social networks in the host culture, which involve not only corporate stakeholders, but also expatriates of other global entities. Such networks can lead to intercorporate ties that can produce jobs for expatriated partners, create new business opportunities, and foster symbiotic information sharing. These acts of cooperation are motivated by an element that initially exists in all interactions: trust (Johnson & Cullen, 2002).

**Trust**

International communication training and SIHRM researchers have paid little attention to trust as a contributor to the success of international missions. In fact, Johnson and Cullen (2002) conclude that “we do not yet have a generalizable and comprehensive model of trust in exchange” (p. 335). Lewicki and Bunker (1995) define trust as a state involving confident positive expectations about another’s motives regarding oneself in situations of risk. Risky situations—that is, circumstances that can trigger anxiety because of unknown outcomes—are particularly relevant to expatriates. They are often bestowed with leadership positions in which they have to interact with host culture natives, from whom they expect mutually satisfying cooperation. At the same time, they are risking their own well-being (emotional, mental, physical, and career) and risking the investments of MNEs.
The importance of trust was demonstrated by Rosen, Digh, Singer, and Phillips (2000), who find that socially literate leaders display behaviors that create environments in which trust fosters mutually satisfying relationships. Similarly, Chan, Huang, and Ng (2008) find a significant correlation between managers’ integrating conflict management style to trust and subordinates’ job satisfaction and turnover intention. Though their research was conducted in a national context, their findings extend to the expatriate work situation. Global missionaries need to gain the trust of host culture workers through satisfying communication, which should reduce their turnover intentions, thereby retaining human capital in the international location.

Stressing the importance of trust in a globalized world, Doney, Cannon, and Mullen (1998) summarize that trust can lower transaction costs, facilitate interorganizational relationships, and enhance manager-subordinate relationships. Wicks, Berman, and Jones (1999) add that managers who develop trust in relationships with stakeholders will improve firm performance. Banai and Reisel (1999) also contend that “enhancing trust in subsidiaries of MNEs may reduce managerial reliance on formalization of control and thereby lower operational cost structures” (p. 478). Therefore, trust has been established as an aspect of interpersonal/international/intercultural relationships, particularly since Johnson and Cullen (2002) categorize trust as an element of motivation when they speak of necessary motivational investments to increase trust.

Despite the lack of a theory on trust in intercultural relationships, Spitzberg (2000) includes trust in his model of intercultural communication competence when he proposes that “as mutual trust increases, relational competence increases. The more partners trust one another, the more competent interaction is likely to be, and the more competent the relationship is likely to be” (p. 386). The scholar adds that trust provides the environment in which relationships can be more open, honest, spontaneous, and direct, and that mutual reciprocity in trust should result in more productive and satisfying relationships.

Another scholar who addresses trust is the sociologist Jonathan H. Turner (1987), who identifies the need to trust as a motivating factor in our interactions with others. This trust is particularly associated with the need to reduce anxiety and improve predictability and reliability. Turner (1987) states that our desire for trust is subconscious and shapes the behaviors that interlocutors display, their agendas and identities, and the rules they follow. Gudykunst and Kim (2003) follow Turner’s lead and state that a lack of trust negatively influences ICM. In an empirical study that investigates trust and its relationships to expatriate effectiveness during international assignments, Hawes and Kealey (1981) state that technical advisers who are motivated on their international assignments will make an effort to engage in intercultural interactions with host culture natives, familiarize themselves with local customs and codes of conduct, and gain an appreciation for hosts and their culture. When this effort triggers a reciprocal reaction from locals, a mutual perception of trust sets in.

Johnson and Cullen (2002) summarize the work on trust in intercultural relationships when they claim that all relationships are built on an initial level of trust that serves as a motor of relationship building, a notion that is supported by McKnight, Cummings, and Chervany (1998). Johnson and Cullen (2002) conceptualize trust as a dynamic, cyclical, reciprocal/interdependent, and trainable element of cross-cultural exchanges.
communicative partners. At the same time, expatriates need to conduct themselves in a trustworthy manner, particularly if the cultures of their target countries value trust and personal relationships. During training exercises, expatriates need to acquire the knowledge about their home and host cultures to understand traditions, behaviors, and rules so that they can accurately read cultural signals. International assignees also need to learn the skills to behave appropriately and effectively in a trustworthy manner—that is, they need to be trained to perform the behaviors that elicit feelings of predictability, reliability, and trust. Only then will they have the necessary ICM to succeed in their international posts.

Individuals in trusting relationships feel more secure and can focus on the outcome of their interactions—that is, they can concentrate on their self-efficacious intentions in the relationship.

**Self-Efficacy**

Spitzberg (2000) makes self-efficacy a component of ICM when he contends that “as reward-relevant efficacy beliefs increase, communication motivation increases” (p. 381). Bandura (1986) also identifies it as a key facet of motivation and has defined self-efficacy as “a judgment of one’s capability to accomplish a certain level of performance” (p. 391). Bandura (1977) claims that self-efficacy is one of the most powerful influences on behavior and behavioral change because it directly affects actual behavior execution, execution energy, and execution persistence. He also argues that self-efficacy is a more powerful predictor of behavior than either outcome expectations or past performance. Multon, Brown, and Lent (1991) and Schunk (1991) present the empirical support for this contention.

Self-efficacy as a behavior predictor and factor of ICM works as a filter through which communicative situations are evaluated for their level of complexity, difficulty, and importance. Mills, Pajares, and Herron (2006) explain that “a weaker sense of efficacy, therefore, arouses anxiety as well as decreases achievement” (p. 277). Communicators deeming certain encounters as too challenging will avoid those situations, a disposition known as communication avoidance (Gudykunst, 1992). In contrast, self-efficacious communicators will seek out taxing circumstances in which they want to succeed and, consequently, can see themselves and are perceived as competent communicative partners (Gudykunst, 1992). Phillips and Gully (1997) support this contention as they find that individuals’ self-efficacy affects their goal-setting behavior, with greater self-efficacy being associated with the setting of higher goals and ultimately with higher performance. Parallel to this, Kozlowski, Gully, Nason, and Smith (1999) find that self-efficacy affects the team performance of organizational members in that individuals with higher self-efficacy are more likely to contribute to their teams’ effectiveness through their increased motivation, higher goals, and greater persistence. Additionally, self-efficacy research stipulates that the interest level of individuals will increase when their self-efficacy increases (Lenox & Subich, 1994). In relation to interest and achievement, self-efficacy has both a general and a context-dependent dimension (Sherer et al., 1982). A variety of previous experiences from multiple spheres of life influence the level of general self-efficacy, and experiences made in specific contexts influence the performance expectations in the same or similar situations (Sherer et al., 1982).

The implications for SIHRM programs involve the likely relationship between mission success and self-efficacy (Milstein, 2005). Kline Harrison, Chadwick, and Scales (1996) find that expatriates with high levels of self-efficacy show greater degrees of general, interaction, and work adjustment than less efficacious missionaries, a finding that Mak and Tran (2001) reproduce. Consequently, only expatriates and their partners who
project themselves to be successful in challenging situations and who actually want to go abroad to prove themselves, despite the inherent uncertainty, diversity, cognitive dissonance, and adversity, should be selected for international assignments. These individuals have higher levels of expectations to succeed in social and professional contexts. Such candidates not only should be more successful in their global missions but also should take this self-efficacy back to their home office once they return from their assignments, which should result in better retention, knowledge and skills transfer, and development of a global mind-set (Kühlmann, 2001). Training programs need to focus on the creation of positive experiences through a succession of increasingly difficult tasks and interactions, followed by specific feedback.

In summary, self-efficacy determines and predicts behavior execution and perseverance, is negatively correlated to anxiety, and is based on previous general and specific experiences. To be successful in global missions, expatriates need to demonstrate a high level of intercultural self-efficacy—that is, a high degree of confidence and persistence to reach desired goals in novel environments with challenging communicative patterns (Earley & Peterson, 2004).

The three components of ICM are interdependent, in that anxiety has a negative influence on ICM, while approach dispositions—that is, trust and self-efficacy beliefs—are associated with positive interaction motivation (Spitzberg, 2000). Table I summarizes the key components of ICM and their characteristics.

**Measuring ICM**

The literature provides support for the proposition that intercultural communication motivation influences the quality of the relationships expatriates are able to build while abroad and that it deserves specific attention in selection processes and training needs assessments because only sufficient motivation enables trainees to apply knowledge and skills appropriately and effectively (Spitzberg, 2000). Therefore, measurement of ICM becomes relevant, and the need for a validated instrument arises. But an extensive literature review revealed no existing instrument for doing so. Having determined that ICM consists of intercultural anxiety, intercultural trust, and intercultural self-efficacy, we developed the Intercultural Communication Motivation Scale (ICMS) based on those three components. Until now academics have not

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<th>Anxiety</th>
<th>Trust</th>
<th>Self-Efficacy</th>
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<tr>
<td>Anticipatory adjustment</td>
<td>Positive expectations of rewarding outcomes</td>
<td>Belief to accomplish performance level</td>
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<tr>
<td>Saliently different cultural identities cause uncertainty and anxiety</td>
<td>Subconscious motivating factor for interactions and relationship building</td>
<td>Evaluative filter for situational complexity, difficulty, and importance</td>
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<td>Fears of identity threats, physical harm, poor image/reputation among in- and out-group cause communication avoidance</td>
<td>Driven by need to increase predictability and reliability</td>
<td>Situations chosen in which success can be envisioned/predicted</td>
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<tr>
<td>Natural curiosity leads to information seeking acts for anxiety management</td>
<td>Dynamic, cyclic, reciprocal process</td>
<td>Directly affects behavior execution, execution energy, and execution persistence</td>
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<tr>
<td>Gudykunst (2005) Uncertainty &amp; Anxiety Management Theory</td>
<td>Mutual trust increases perception of competence</td>
<td>Affects goal-setting behavior</td>
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<td></td>
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<td>Life experiences influence general and contextual self-efficacy</td>
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**Table I: Key Components of ICM and Their Characteristics**
provided an instrument that enables HR practitioners to assess ICM in the context of worldwide assignments. Anderson (2005) finds that, in retrospect, repatriates perceived psychological tests as a valuable selection method provided by SIHRM. Therefore, developing, testing, and applying of instruments such as the ICMS can facilitate a socially responsible and thorough approach to expatriate selection and training. In our initial analyses and validation of the ICMS, we focused on four questions:

Question 1: What are the psychometric qualities of the ICMS?

Question 2: Are there differences between self and peer perceptions of intercultural communication motivation that the ICMS can detect?

Question 3: Is the ICMS sensitive enough to measure changes in self and peer perceptions of intercultural communication motivation over time?

Question 4: What are the relationships among the three components (anxiety, trust, and self-efficacy) of intercultural communication motivation?

Method

Mol, Born, and van der Molen (2005) state that “if delineating performance criteria for the selection of domestic employees is important, it surely is crucial for expatriates” (p. 351). Academics have struggled, however, with the development of valid and reliable diagnostic and predictive assessment instruments for various purposes (Matsumoto et al., 2001). Scholars have suggested identifying psychological qualities, such as motivational elements, to circumvent the restrictive culture- and context-specificity, and instead to measure the potential to perform well in any intercultural contact situations. Gudykunst (1992) calls attention to another obstacle when he delineates that communicators often have a different perception of their own communication competence than their interaction partners’ evaluations reflect. “Understanding communication competence, therefore, minimally requires we take into consideration our own and the other person’s perspective” (Gudykunst & Kim, 2003, p. 252). Self-evaluations, however, need to be one element of such an evaluation program. Arasararatnam and Doerfel (2005), Caligiuri and Tarique (2006), and Riggio and Riggio (2001) insist that self-evaluations have value in the assessment of communication motivation by facilitating the development of a candidate pool through the creation of more self-awareness in future expatriates and the provision of a means to enhance the assignment-candidate fit through educated self-selections.

To supple the diagnostic value of self-evaluations, Dinges and Baldwin (1996) support Matsumoto et al.’s (2001) and Gudykunst’s (1992) observations regarding the problems in intercultural communication competence research. They suggest adopting an interactionist model for investigating intercultural communication competence through the use of behavioral observation methods. They point out a lack of research on intercultural communication competence from a “reciprocal cultural perspective of the persons involved” (Dinges & Baldwin, 1996, p. 113) and lament the dominance of retrospective self-report measures. For a well-rounded evaluation of communication competence, it is imperative to use structured behavioral observation and assessment by those a person communicates with, especially since ICC is a form of impression management (e.g., Gudykunst, 1992; Martin & Hammer, 1989; Spitzberg, 2000).

The ICMS reflects this and uses a combination of self-assessments in either online or paper-pencil modes as well as the behavioral observation method with structured feedback through peers and, potentially, supervisors,
marital partners/family members, and/or host country nationals. Ruben (1976) supports the behavioral assessment approach and states that this method is reasonably straightforward. He emphasizes that the goal is to systematically collect and analyze the behavior of individuals in situations that are “either contrived or natural” and “are analogous to those for which they are being trained or selected” in comparison to “a predetermined set of criterion dimensions” (p. 337). This should result in data that allow “reasonably valid predictions about how likely those individuals are to display similar behaviors in future situations” (p. 337). Analogously, the motivational elements as the basis for the displayed behaviors should be inferable in self and peer evaluations. Gersten (1990) also states that sole reliance on self-assessments risks misrepresentation of the real level of a candidate’s intercultural communication competence. In keeping with previous research, she suggests a measurement approach that includes multiple sources of feedback to create a more realistic picture, such as the behavioral assessment approach.

The ICMS reflects this and uses a combination of self-assessments in either online or paper-pencil modes as well as the behavioral observation method with structured feedback through peers and, potentially, supervisors, marital partners/family members, and/or host country nationals.

Nevertheless, Hagan, Konopaske, Bernardin, and Tyler (2006) recently were able to demonstrate the supreme richness of the collected data and the validity of assessment centers as selection and training tools in human resource management. Additionally, Van der Heijden and Nijhof (2004) see the value of such 360-degree appraisals in that different perceptions can facilitate a better understanding of the working relations between supervisors and employees, their personal performances, and the underlying motives for career development, which are particularly important for a socially responsible SIHRM program.

Besides the implementation of a behavioral assessment method, Dinges and Baldwin (1996) advise employing a repeated measure design to “focus on criteria research in which multidimensional standards of exemplary performance are identified at different points in time and across tasks” (p. 121). Wiseman (2002) supports such research designs. Ruben (1976) adds that these observations should be done not only at different times but also in varying contexts, formal and informal. The test-retest format that the ICMS employs to evaluate training effectiveness as demanded by Tarique and Caligiuri (2004) is a first step beyond the snapshot approach often taken in training assessment and criticized by Lustig and Spitzberg (1993). The two-month period between measurements gives the relationships between individuals time to develop and allows the training content to have an impact on the motivation of the communicators and to include behavioral observations in a variety of contexts, making the assessment more reliable. Correspondingly, Ward and Kennedy (1999) state that “the soundness of developing theory and research on … psychological adjustment of sojourners rests on the measurement of the adjustive outcomes” (p. 661). In other words, the researchers favor a longitudinal research design to test differences in the motivational outcomes as a result of cultural learning. The authors define psychological adjustment as psychological well-being—that is, the acquisition of stress...
management and coping mechanisms that have been linked with relationship satisfaction.

In summary, the development of the ICMS was guided by the concerns raised and suggestions made by Dinges and Baldwin (1996), Gertsen (1990), Matsumoto et al. (2001), Ruben (1976), and Wiseman (2002). The scale reflects what are thought to be universal motivational elements of the complex paradigm of intercultural communication competence. The ICMS can be used as either a culture-specific or a culture-general diagnostic and predictive SIHRM tool to measure individual communication motivation differences by incorporating contextually defined factors.

The following sections of this article describe the samples and process used to conduct empirical factor analyses and scale reliability tests of the ICMS. The psychometric qualities of the ICMS are outlined and the diagnostic value of the ICMS is demonstrated.

**Samples and Processes Used in Testing**

The initial test of the ICMS used student responses to generate a sample that resembles future expatriates who are exposed to intercultural training courses before embarking on global missions. Students attending 18 different courses that resemble intercultural communication training through a clear intercultural education component (such as courses in intercultural communication, intercultural business, and intercultural psychology) completed the ICMS as part of a larger study. Given many study participants’ interests in international/intercultural issues, they may be considered prospective expatriates or accompanying spouses or may become line managers working with expatriation candidates, inpatriates, and other international staff. Even though not all students took the courses in which the ICMS was administered as electives (some needed them to complete graduation requirements), this situation still legitimizes this approach because not all expatriates take international missions voluntarily. Some reluctantly take them to gain the international experience needed to climb the corporate ladder (Kühlmann, 2001). This approach enabled the research team to amass a sample size pertinent for the psychometric evaluation techniques that they used. Caligiuri, Jacobs, and Farr (2000); Graf (2004); Matsumoto et al. (2001); Matsumoto, LeRoux, Bernhard, and Gray (2004); Paige, Jacobs-Cassuto, Yershova, and DeJaegheere (2003); and others have used international student samples for similar reasons. This study uses a pathfinder approach because actual expatriates are hard to recruit in sufficient numbers for exploratory research (Tharenou, 2005). This is in accordance with Sattler and Völker (2003), who suggest recruiting study participants who are sufficiently similar to the actual target group for early stages of investigative efforts and using the results of such exploratory findings in subsequent confirmatory studies with target subjects.

We administered the ICMS during 2005 and 2006 as part of a larger study at 11 universities in four countries: five universities in the United States, three in New Zealand, two in Germany, and one in the United Arab Emirates, building four samples of undergraduate students. These countries were selected, in part, for reasons of accessibility (given the locations of the researchers) and for diversity. Although a worldwide, comprehensive sample could be construed as ideal, that was well beyond the scale of this exploratory project. The sample employed does include subjects representing 56 different countries of birth. It should be noted that the sample from the United Arab Emirates (N = 55) consists exclusively of female students, and one university in the United States also recruited predominantly female students to participate in these studies because of unbalanced enrollment in the course, resulting in approximately two-thirds of the

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*The test-retest format that the ICMS employs to evaluate training effectiveness as demanded by Tarique and Caligiuri (2004) is a first step beyond the snapshot approach often taken in training assessment and criticized by Lustig and Spitzberg (1993).*
total sample being female. Table II outlines the sample characteristics.

In the first sample created for the self-evaluation test, 816 students participated. The students were between 18 and 55 years old, with the average age 21.8 years. Because of the reasons described, the gender distribution was 67.5% female and 32.5% male. The participants were from 56 nations, with New Zealand (47.2%), the United States (11.9%),

| TABLE II Sample Characteristics |
|-----------------|-----------------|-----------------|-----------------|-----------------|
|                 | Self-Test       | Self-Retest     | Peer Test       | Peer Retest     |
| Number of universities | 11              | 6               | 6               | 6               |
| Number of courses | 18              | 14              | 14              | 13              |
| **Test Split** | **Number of students** | **Male** | **Female** | **Male** | **Female** | **Male** | **Female** | **Male** | **Female** |
| Pilot test | 28.3% | 31.7% | 27.6% | 28.7% |
| Study 1 | 17.2% | 18.6% | 22.7% | 19.3% |
| Study 2 | 37.1% | 43.3% | 46.5% | 40.5% |
| Study 3 | 17.4% | 6.5% | 3.3% | 5.5% |
| Total | 265 (32.5%) | 213 (36.3%) | 152 (34.3%) | 133 (35.3%) |
| Male | 551 (67.5%) | 374 (63.7%) | 291 (65.7%) | 244 (64.7%) |
| Female | 21.8 | 22.0 | 21.8 | 21.8 |
| **SD** | 3.92 | 3.79 | 3.67 | 3.59 |
| **Mode** | 21 | 21 | 20 | 21 |
| **Min** | 18 | 18 | 18 | 18 |
| **Max** | 55 | 49 | 48 | 49 |
| Number of country of birth | 56 | 47 | 36 | 43 |
| **China** | 9.8% | 12.6% | 4.6% | 5.7% |
| **GER** | 4.3% | n/a | n/a | n/a |
| **NZ** | 47.2% | 52.0% | 29.7% | 37.8% |
| **UAE** | 6.4% | n/a | n/a | n/a |
| **USA** | 11.9% | 11.9% | 4.9% | 10.0% |
| Knowledge of peer (length in months) | **M** | **SD** | **M** | **SD** |
| **Mode** | n/a | n/a | 21.10 | 22.30 |
| **Min** | 0 (N = 3) | 0 (N = 3) | 26.42 | 30.02 |
| **Max** | 210 (N = 1) | 300 (N = 1) | 1 | 3 |
| I have a very detailed knowledge of my peer’s character in social settings (birthday parties, etc.). | n/a | n/a | M = 2.35 | M = 2.77 |
| | | | SD = 1.57 | SD = 1.52 |
| | | | N = 20 | N = 20 |
| I have a very detailed knowledge of my peer’s character in work/study settings (banquets, office, classroom, etc.). | n/a | n/a | M = 2.70 | M = 3.08 |
| | | | SD = 1.26 | SD = 1.35 |
| | | | N = 20 | N = 20 |
| I have frequently observed my peer in social settings (birthday parties, shopping in local stores, etc.) interact with people from the target culture. | n/a | n/a | M = 2.16 | M = 2.79 |
| | | | SD = 1.61 | SD = 1.54 |
| | | | N = 19 | N = 271 |
| I have frequently observed my peer in work/study settings (banquets, office, classroom, etc.) interact with people from the target culture. | n/a | n/a | M = 2.10 | M = 2.93 |
| | | | SD = 1.41 | SD = 1.44 |
| | | | N = 20 | N = 273 |
China (9.8%), the United Arab Emirates (6.4%), and Germany (4.3%) named most often.

The second sample consisted of 587 students who took part in the self-evaluation retest, which was conducted approximately two months after the test. Therefore, a long enough time gap was created to avoid memory effects (Matsumoto et al., 2001). Their average age was 22 years with a range from 18 to 49. The gender distribution reflects the described circumstances in that 63.7% were females and 36.3% were males. The students registered 47 nations as their country of birth, with New Zealand (52.0%), China (12.6%), and the United States (11.9%) the most frequently represented home countries.

Because of cultural considerations, demographic data were not collected in every sample of the peer evaluations. In the peer-evaluation test, which was conducted parallel to the self-evaluation test, 613 students participated. They made up the third sample. Age, gender, and nationality distributions were comparable to those of the self-tests. The peers knew the students they selected for the peer evaluation for an average of 21.1 months. Using a 6-point Likert scale (0 = strongly disagree; 5 = strongly agree; plus a “don’t know” option), they rated their knowledge of the students on four questions to indicate whether they knew the students in social and/or work/study contexts and whether they had observed them frequently interacting with foreign culture nationals in social and/or work/study situations. The scores for these variables in the peer test indicate that the peers had slightly more knowledge of their partners in work/study contexts than in social contexts and had observed them in both situations with similar frequency.

The fourth sample consisted of the 529 peer-evaluation retest participants. This test was conducted simultaneously to the self-evaluation retest, and the peers rated the same students as in the peer-evaluation test. The demographic qualities of the peer retest were comparable to those of the other three samples in such categories as age, gender, and nationality. The peers in this retest round knew the students for, on average, 22.3 months. Using the same 6-point, Likert-type acquaintance rating scales, the scores illustrate that the peers had observed the students more frequently in both circumstances and that, consequently, their knowledge of the students across contexts had improved.

**Instrument**

McCroskey (1993) points out the difficulty of operationalizing any component of intercultural communication competence, and Dinges and Baldwin (1996) state that operationalization of its components is underdeveloped. With this challenge, the senior author and the first assistant author of this article developed the items for the ICMS, guided by the ontology of intercultural communication motivation as a theoretical foundation. The research team conducted an extensive literature review of research related to intercultural communication competence to generate items that most closely reflect this ontology.

The research team endeavored to incorporate items from established scales or parts thereof to lend credibility and reliability to the ICMS. Gaps that could not be filled with existing scales were bridged through the creation of new items, which were carefully worded in English with the intent of remaining semantically parsimonious and topic-focused. Considering the diversity of the participants in these studies, it is yet to be determined whether the use of the English language in the ICMS is a hindrance to its international usability (Harzing, 2005). The authors closely followed the recommendations of Frey, Botan, and Kreps (2000) and DeVellis (2003) for the formulation and arrangement of ICMS items to assure a logical flow of relevant, straightforward, and non-threatening closed statements. They also took into consideration Nunnally’s (1978) suggestions to solve problems associated with self-description inventories and the scaling of the items in the ICMS. The scale is absolute, in numeric intervals, and attempts to avoid response styles by employing an even number of answer choices on the 6-point Likert-type scale from 0 to 5 (strongly dis-
agree to strongly agree). An answer option outside the scale (“don’t know”) was, however, provided to avoid forcing participants to make uncomfortable judgments or skip questions (Frey et al., 2000; Nunnally, 1978).

After careful pilot testing at two universities in New Zealand and in three subsequent studies in a third university in New Zealand, five in the United States, one in the United Arab Emirates, and two in Germany, an 18-item ICMS emerged.

Anxiety

Stephan and Stephan (1985) describe the creation of an 11-item intergroup anxiety scale. To fit the ICMS, the introductory phrase wording of the items was adjusted to reflect the intercultural nature of the ICMS, but the core remained identical with the original. The originators of the scale describe a Cronbach’s alpha of 0.86 in their study. In the ICMS, the rating scale also was adapted from a 10-point scale to a 6-point scale with a “don’t know” option. Stephan and Stephan do not cite the results of a factor analysis. Gudykunst and Nishida (2001) report using a slightly moderated anxiety scale. They achieved Cronbach’s alphas of 0.84 and 0.88 and report a one-factor solution with loadings of 0.60 or higher.

Trust

The research team could not locate established scales specifically dealing with trust in intercultural communication situations as a motivational factor. Therefore, all items in the intercultural trust scale were newly developed for the ICMS. The items of the intercultural trust scale reflect the dyadic and reciprocal nature of the trust relationship that is outlined in the ontology section earlier.

Self-Efficacy

Sherer et al. (1982) developed a 23-item self-efficacy scale. They used a 14-point Likert-type rating scale and derived a two-factor solution: general self-efficacy dealing with performance attainment (Woodruff & Cashman, 1993) and social self-efficacy dealing with the building of interpersonal relationships (Woodruff & Cashman, 1993). Sherer et al. (1982) report Cronbach’s alphas of 0.86 and 0.71 and factor loadings between 0.39 and 0.70. Sherer et al. (1982) also measured the social desirability effect of their scale and found correlations between Crowne and Marlow’s (1964) social desirability scale and their self-efficacy scale of 0.43 (general self-efficacy subscale) and 0.28 (social self-efficacy subscale), with \( p < .0001 \).

Woodruff and Cashman (1993) tested Sherer et al.’s (1982) self-efficacy scale and achieved Cronbach’s alpha results of 0.84 (general self-efficacy) and 0.69 (social self-efficacy). They also report a Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.86, which is meritorious (Dziuban & Shirkey, 1974). They developed a five-factor model, and their factor loadings range from 0.35 to 0.66.

For reasons of practicality and psychometric prudence, the research team chose to accept only items that had the highest loadings and most relevance to the ICMS. Consequently, two items from the general self-efficacy subscale with the specific focus of “efficacy in the face of adversity” (Sherer et al., 1982, p. 665) were selected, because adversity is a constant companion in most international assignments. Additionally, two items from the social self-efficacy subscale were chosen, because social self-efficacy measures initiation persistence, which is an important element of any foreign posting.

Procedure

Complying with the dyadic nature of intercultural communication and following the call for peer-evaluation studies with longitudinal character (Lustig & Spitzberg, 1993) that document the development of communication motivation through interventions such as training, we administered the ICMS in a test-retest design at the beginning.
and the end of the semester. The ICMS underwent testing through a pilot at two universities in New Zealand and three subsequent studies at nine more universities in four countries. Since some of the courses either were not completed yet at the time of this report (for example, those in Germany) or were conducted in countries in which peer evaluations are not possible because of cultural considerations, the number of participants varies widely among the four samples.

In the self- and peer-evaluation pilot test round, the ICMS was administered as part of a bigger study in two forms: in a paper-pencil version at one university (N = 182; 22.3% of total sample) across three courses and in an online version at a second university in one course (N = 49; 6.0% of total sample). The paper-pencil test was distributed among students during their regular class meetings in the second week of the semester. The instrument contained an instruction sheet, ethical approval information, and a consent sheet, which was signed and separated from the questionnaire before submission. The students were given the option to find peers by themselves, based on their preferences and level of acquaintance. If students did not know anybody in the class, they were matched by the research team and instructed to get to know one another and submitted their survey one week later. In the majority of the cases the peer evaluation was completed in class.

The online version of the ICMS is technologically supported by the online service provider WebSurveyor, located in Herndon, Virginia. The decision to administer the ICMS online was driven by the geographical distance between the members of the research team at one university on the South Island of New Zealand and their global partners, as well as by the desire to expand the total sample size and breadth. The cost saving, ease, security, and confidentiality of the data transfer are additional arguments for online administration (Cobanoglu, Warde, & Moreo, 2001; Granello & Wheaton, 2004; Gunter, Nicholas, Huntington, & Williams, 2002; Kaplowitz, Hadlock, & Levine, 2004; Rhodes, Bowie, & Hergenrather, 2003). The survey was completed outside class by the students, who were given a time frame of 10 days for submission.

The diagnostic and predictive purpose of the ICMS requires a research plan of a test-retest design to evaluate participants’ current intercultural communication competence state and their development after an intervention (Frey et al., 2000; Neuman, 2000). A two-month time gap between the two test rounds is sufficient to prevent a memory effect (Matsumoto et al., 2001). The results of the ICMS scores were presented to the students without attaching names to them. To avoid social tension among students, only aggregate peer-evaluation results were revealed.

Completion of all four evaluations accounted for 5% of the class participation grade for the New Zealand students. Those who did not want to contribute to the study were given the option to earn that credit through alternative assignments. Most students in the United States and the United Arab Emirates could earn 5% extra credit if they contributed to the study. Students in Germany did so completely voluntarily. This incentive did not compromise the data quality in online surveys (Cobanoglu & Cobanoglu, 2003).

The ICMS results of every study were analyzed with a variety of tests described in the results section. As a product of these procedures, one initially included item of foreign language motivation was excluded after the pilot test, and one item inquiring about the motivation to perform nonverbal communication signals accurately was added and cut after study 2. The original fifth item of the intercultural self-efficacy scale was cut, and a summarizing statement about the motivation to communicate with locals was also eliminated after study 1. The core of the ICMS, however, remained stable.
Results

To investigate the multidimensional character of the intercultural communication skills represented in the ICMS, we exposed the ICMS scores to repeated exploratory factor analyses using the principal components analysis method with varimax rotation. We conducted internal consistency estimates of reliability tests, analyses of the explained variance, and tests for the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO). The results for all four samples follow.

Question 1: What Are the Psychometric Qualities of the ICMS?

The exploratory factor analyses for the Intercultural Anxiety Scale across the four samples (see Table III) demonstrate a three-factor solution. The most stable factor combines the items describing the feelings of irritation, awkwardness, impatience, defensiveness, and suspiciousness. We call this factor intercultural apprehension. In the second factor, a tendency to unite the items of certainty, confidence, acceptance, and happiness can be observed. This factor, however, is less stable. We name this factor intercultural poise. A third factor has materialized by unifying self-consciousness and carefulness. We call this factor intercultural prudence. Besides these three factors, which surfaced in the exploratory factor analysis of the Intercultural Anxiety Scale, the components of intercultural trust and intercultural self-efficacy crystallized as two separate factors across all samples in the confirmatory factor analysis. Collectively, a five-factor solution emerged for the ICMS.

Factor loadings are generally solid and range from 0.49 to 0.86 across all four samples and all scales. In the self-test, 5.3% (N = 1) of the items have loadings in the 0.40 range, 10.5% in the 0.50 range, 5.3% in the 0.60 range, 31.6% in the 0.70 range, and 47.4% in the 0.80 range, putting the factor analytical results of the self-test on solid ground. Even more robust are the factor analytical outcomes for the self-retest and the peer test, which show that 5.3% are in the 0.50 range, 10.5% are in the 0.60 range, 47.4% in the 0.70 range, and 36.8% in the 0.80 range. The peer retest is consistent in its factor loadings, because 31.6% are in the 0.60 range, 47.4% are in the 0.70 range, and 21.0% are in the 0.80 range. Collectively, the four samples perform rather convincingly in the factor analyses, since 1.3% (N = 1) are in the 0.40 range, 5.3% are in the 0.50 range, 14.5% are in the 0.60 range, 43.4% are in the 0.70 range, and 35.5% are in the 0.80 range.

According to Dziuban and Shirkey (1974), all KMO scores as a measure of sampling adequacy can be interpreted as either meritorious (KMO > .80) or marvelous (KMO > .90). The ICMS performs similarly well in its steadily high reliability scores, ranging between 0.88 and 0.93 across all four samples. The total variance explained in all four samples is rather consistent and satisfactory, as it ranges between 66.6% and 71.2%. With these results, the ICMS compares favorably to other studies on the intergroup anxiety and self-efficacy scales cited previously. Finally, solid test-retest correlations for both self- and peer evaluations support the stability of the ICMS.

In comparison to Sherer et al.’s (1982) correlation of the self-efficacy scale with Crowne and Marlow’s (1964) social desirability scale (SDS), the ICMS performs rather well, as the correlations are mostly nonsignificant or negligible. This is supported by the low SDS averages in all four samples, indicating a high degree of independence and honesty of the participants in all samples. Therefore, a social desirability bias is hardly detectable in the ICMS.

Question 2: Are There Differences Between Self and Peer Perceptions of Intercultural Communication Motivation That the ICMS Can Detect?

A sample of participants who had contributed a self-test and a retest and about whom their peers had completed a test and a retest evaluation was assembled to analyze the differences between ICMS self and peer evaluations. The differences for the scales were calculated using a paired-samples t test. The results for the intercultural anxiety scale,
### TABLE III  ICMS Descriptives and Factor Loadings

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Self Test</th>
<th></th>
<th>Self Retest</th>
<th></th>
<th>Peer Test</th>
<th></th>
<th>Peer Retest</th>
<th></th>
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<td></td>
<td>N=531</td>
<td>N=409</td>
<td>N=312</td>
<td>N=274</td>
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<td><strong>M</strong></td>
<td><strong>SD</strong></td>
<td><strong>Loading on Factor</strong></td>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
<td><strong>Loading on Factor</strong></td>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
<td><strong>Loading on Factor</strong></td>
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<td><strong>Age</strong></td>
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<td>3.92</td>
<td>22.0</td>
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<td>21.8</td>
<td>3.67</td>
<td>21.8</td>
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<td><strong>Min-max</strong></td>
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<td>.84 (4)</td>
<td>18–49</td>
<td>.83 (4)</td>
<td>18–48</td>
<td>.73 (4)</td>
<td>18–49</td>
<td>.71 (3)</td>
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<td>Certain</td>
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<td>1.20</td>
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<td>Confident</td>
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<td>3.09</td>
<td>1.01</td>
<td>3.28</td>
<td>1.06</td>
<td>3.30</td>
<td>.99</td>
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<td>3.25</td>
<td>.96</td>
<td>3.29</td>
<td>.93</td>
<td>3.34</td>
<td>.89</td>
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<td>3.07</td>
<td>1.11</td>
<td>3.09</td>
<td>1.08</td>
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<td>1.12</td>
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<td>Awkward*</td>
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<td>1.12</td>
<td>2.80</td>
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<td>3.00</td>
<td>1.11</td>
<td>2.88</td>
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<td>3.09</td>
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<td>3.16</td>
<td>1.05</td>
<td>2.99</td>
<td>1.12</td>
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<tr>
<td>Defensive*</td>
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<td>1.12</td>
<td>3.14</td>
<td>1.09</td>
<td>3.25</td>
<td>1.07</td>
<td>3.05</td>
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<td>3.31</td>
<td>1.10</td>
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<td>Self-Conscious*</td>
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<td>1.22</td>
<td>2.48</td>
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<td>2.67</td>
<td>1.15</td>
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<td>Careful*</td>
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<td>2.32</td>
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<td>Happy</td>
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<td>3.04</td>
<td>1.21</td>
<td>3.18</td>
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<td>IC Anxiety Total</td>
<td>2.96</td>
<td>.69</td>
<td>2.94</td>
<td>.69</td>
<td>3.02</td>
<td>.70</td>
<td>2.97</td>
<td>.75</td>
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<tr>
<td>I trust them socially</td>
<td>3.00</td>
<td>1.05</td>
<td>3.12</td>
<td>.98</td>
<td>3.09</td>
<td>1.04</td>
<td>3.24</td>
<td>.97</td>
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<tr>
<td>I trust them at work</td>
<td>3.30</td>
<td>.92</td>
<td>3.39</td>
<td>.91</td>
<td>3.34</td>
<td>.90</td>
<td>3.46</td>
<td>.89</td>
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<tr>
<td>They trust me socially</td>
<td>3.23</td>
<td>.96</td>
<td>3.33</td>
<td>.90</td>
<td>3.29</td>
<td>.94</td>
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<td>.89</td>
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<td>They trust me at work</td>
<td>3.38</td>
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<td>3.47</td>
<td>.81</td>
<td>3.40</td>
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<td>.82</td>
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<td>ICF Trust Total</td>
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<td>3.31</td>
<td>.78</td>
<td>3.28</td>
<td>.82</td>
<td>3.39</td>
<td>.76</td>
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<td>I give up*</td>
<td>3.40</td>
<td>1.07</td>
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<td>1.04</td>
<td>3.23</td>
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<td>I do not want to try*</td>
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<td>1.14</td>
<td>3.42</td>
<td>1.05</td>
<td>3.43</td>
<td>1.08</td>
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<td>difficult making friends*</td>
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<td>1.22</td>
<td>3.24</td>
<td>1.18</td>
<td>3.39</td>
<td>1.20</td>
<td>3.23</td>
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<td>social gatherings*</td>
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<td>3.38</td>
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<td>IC Self-Efficacy Total</td>
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<td>.92</td>
<td>3.33</td>
<td>.91</td>
<td>3.39</td>
<td>.92</td>
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<td>.97</td>
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<td>IC Motivation Total</td>
<td>3.19</td>
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<td>.63</td>
<td>3.23</td>
<td>.64</td>
<td>3.20</td>
<td>.66</td>
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</tbody>
</table>

*=Reversed.
N = 309; self M = 2.96; peer M = 2.98; t(308) = −0.44, p = .66; the intercultural trust scale, N = 278; self M = 3.21; peer M = 3.31; t(277) = −1.61, p = .11; and the intercultural self-efficacy scale, N = 305; self M = 3.42; peer M = 3.40; t(304) = 0.22, p = .83, were not significant. The changes for the ICMS—N = 320; self M = 3.20; peer M = 3.22; t(319) = −0.46, p = .64—also were not significant in the test round between self and peer evaluations.

Using the same “perfect” samples and procedures described, the retest differences between self and peer evaluations were also evaluated with the same results. The means of the intercultural anxiety scale, N = 309; self M = 3.00; peer M = 2.98; t(308) = 0.29, p = .78; the intercultural trust scale, N = 293; self M = 3.37; peer M = 3.40; t(292) = −0.47, p = .64; the intercultural self-efficacy scale, N = 310; self M = 3.39; peer M = 3.28; t(309) = 1.46, p = .15; and the ICMS, N = 318; self M = 3.25; peer M = 3.22; t(317) = 0.66, p = .51, also were not significantly different between self and peer retests.

**Question 3: Is the ICMS Sensitive Enough to Measure Changes in Self- and Peer-perceptions of Intercultural Communication Motivation Over Time?**

For the exploration of the changes in ICMS self-evaluations over time, a sample had to be filtered out of those students who had submitted a test and a retest ICMS. To evaluate these differences, we conducted a paired-samples t test. The scale means of the Intercultural Trust Scale—N = 483; test M = 3.20;
retest \( M = 3.33; t(482) = -3.34, p = .001 \)—show a significant increase. The standardized effect size index, \( d \), for the Intercultural Trust Scale was -.15, which is considered small (Green & Salkind, 2003). The remaining scales show consistency in the test-retest comparisons. The Intercultural Anxiety Scale means—\( N = 504; \) test \( M = 2.96; \) retest \( M = 2.95; \) \( t(503) = 0.27, p = .790 \)—remain identical; the Intercultural Self-Efficacy Scale means—\( N = 500; \) test \( M = 3.41; \) retest \( M = 3.36; \) \( t(499) = 1.16, p = .247 \)—record a slight decrease; and the difference in the ICMS means—\( N = 506; \) test \( M = 3.18; \) retest \( M = 3.21; \) \( t(505) = -0.99, p = .323 \)—constitute a marginal increase.

To examine changes in ICMS peer assessments between test and retest, we could only integrate peer ICM evaluations for those who had finished both test and retest for the same student. Using a paired-sample \( t \) test, we found the means of the Intercultural Trust Scale—\( N = 354; \) test \( M = 3.29; \) retest \( M = 3.41; \) \( t(353) = -2.75, p = .006 \)—to show a significant increase. The standardized effect size index, \( d \), for the Intercultural Trust Scale was -.15, which is considered small (Green & Salkind, 2003). The means of the Intercultural Self-Efficacy Scale—\( N = 388; \) test \( M = 3.43; \) retest \( M = 3.28; \) \( t(387) = 2.74, p = .006 \)—denote a significant decrease. The standardized effect size index, \( d \), for the ISES was .14, which is considered small (Green & Salkind, 2003). In contrast, the means of neither the Intercultural Anxiety Scale—\( N = 386; \) test \( M = 3.03; \) retest \( M = 3.00; \) \( t(385) = 0.82, p = .414 \)—nor the ICMS—\( N = 410; \) test \( M = 3.24; \) retest \( M = 3.23; \) \( t(409) = 0.49, p = .625 \)—are significant. Table IV displays the results in detail.

**Question 4: What Are the Relationships Among the Three Components of the ICMS?**

The proposed interdependence of the ICMS components of intercultural anxiety, trust, and self-efficacy is supported through Pearson correlation analyses. All correlations were significant at the \( p < .001 \) level. Table IV illustrates the correlations in detail.

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**Discussion**

The goal of this research effort was to develop a measure of intercultural communication motivation that allows SIHRM professionals to act socially responsible by meeting the needs of employees, employers, and hosts through a thorough assessment of the motivational disposition of candidates for international assignments. The psychometric analysis of the ICMS has demonstrated that it represents a viable tool. It has a reasonably stable five-factor structure, with the first three factors being intercultural apprehension, poise, and prudence as a measure of intercultural anxiety. The remaining two factors are intercultural trust and intercultural self-efficacy. The interdependence of these factors could be confirmed to some degree. We proposed that anxiety is negatively correlated with trust and self-efficacy. This pattern, however, could only be confirmed for the anxiety (reverse coded)-trust relationship. The association of anxiety and self-efficacy deserves further attention and research. The 19-item ICMS performs well, with consistently high factor loadings, internal consistency scores, explained variance in both self and peer evaluations, and solid test-retest correlations, demonstrating good construct stability.

The steady intercultural anxiety scores in self and peer evaluations are to be explained through the characteristics of the sample: interculturally interested students, most of whom had voluntarily chosen to be in the courses in which the ICMS instrument was administered. These students are attracted to intercultural interactions and are not afraid of the challenges that working with diverse populations present.

The training/courses can be assessed as effective because through them both self and peer perceptions of trust significantly increased, indicating mutually more satisfying...
relationships. In contrast, self-efficacy perceptions decreased in self (approaching significance) and peer (significantly) evaluations. The stable perception of anxiety and the increased trust indicate a heightened awareness of the importance of the interaction process, and it seems students focus less on the interaction outcome. Changes in the ICMS are marginal for self and peer evaluations because the differences in trust and self-efficacy mean scores cancel each other out, while anxiety remains constant.

The lack of differences between self and peer evaluations in the test and retest rounds of the ICMS testifies to the harmonious perceptions of intercultural communication motivation between the students and their peers. The parallel development of all scale scores and, in particular, the trust mean scores is an indication of participants’ mutual perceptions of their satisfying relationships. Whether any other influences, such as the sample characteristics, the contexts, or the wording of the items, are the source of this congruence of perceptions deserves further investigation. It is certain, however, that neither of these scales was influenced by a social desirability bias because the ICMS performed well against that control measure.

In conclusion, the ICMS represents a new, psychometrically sound, and practical instrument for SIHRM practitioners to assess the intercultural communication motivation of candidates who either could be selected for a particular foreign post or need custom-made training to enhance their communication motivation for the specific target location. The ICMS not only enables SIHRM professionals to conduct assessments through retrospective self-evaluations but also provides a means for predictive selection and training effectiveness measurements. The test-retest design has indicated that the ICMS is sensitive enough to detect significant differences. Samples of expatriates who go through an even more focused and rigorous training program should support this trend. The ICMS is a significant contribution to the tool kit of SIHRM professionals to assess the effectiveness of training programs designed to provide continued support for future, current, and returning expatriates and their families.

Conclusions, Limitations, and Future Research

One of the reasons MNEs engage in international business is to acquire global knowledge and skills to enhance their worldwide operations. SIHRM can add strategic value to this process by selecting adequately motivated candidates for global missions who will engage in mutually satisfying relationships with locals and can consequently transfer the knowledge acquired abroad across the organization (Hocking, Brown, & Harzing, 2004). The ICMS gives the SIHRM function a viable, theoretically grounded, and psychometrically reliable tool that is easy to administer. When strategically applied, the ICMS can be used to channel candidates in their training and development program toward certain target cultures for which candidates have shown an affinity based on their ICMS scores. Through the ensuing feedback candidates become aware of their strengths and weaknesses and can make a conscious effort to reduce their anxiety and increase their levels of trust and self-efficacy. Caligiuri and Tarique (2006) suggest that instruments such as the ICMS should be repeatedly and continuously administered to assess potential changes in candidates during career and life stages.

As a SIHRM guideline, we propose that a variety of organizational members should participate at several specific points in time in an assessment of their ICM. The first group would be those who would like to be considered for future international assignments. Once they are part of the expatriate pool, these candidates ought to be assessed through the ICMS for specific international assignment locations. Via the ICMS, their need for intercultural communication training can be determined prior to departure. After the training has been administered, the ICMS can be used as a training effectiveness analysis. Parallel to this practice, candidates’ spouses/partners and family members should be included in the ICM assessment for selection and training purposes since they are a major influence.
on the expatriates and their success during the international assignment (Caligiuri, Hyland, Joshi, & Bross, 1998). To address potential problems while the expatriates are on-site, another ICM assessment should be administered three to six months into the international assignment to determine the potential need for additional training or mentoring. To close the expatriation circle, expatriates about to complete their mission should take an ICM survey with a focus on their home culture six to three months before returning home to evaluate the need for reintegration intercultural communication training. Since the communication process is dyadic, host culture natives who interact with expatriates should not be neglected in a socially responsible SIHRM program.

Despite its best efforts, this study has not been able to overcome all limitations of academic research. We would like to caution the reader that the results of this study were obtained through the cooperation of student samples, which are not ideal for research on SIHRM issues. Furthermore, these students were not involved in actual intercultural training courses but attended classes that had an intercultural educational element. Ideally, a real-world sample in a longitudinal study with a well-designed intercultural communication training program should be employed to examine the validity of the ICMS. Similarly, the incorporation of participants with more international experience would help assess whether age, previous foreign culture experience, and cultural membership or country of birth has an influence on the results of the ICMS.

Another limitation this study was not able to overcome was the matching of candidates and their peers who are locals in the target culture where the future expatriates will be stationed. Parallel to this, future studies ought to try to match candidates and peers who have a higher level of acquaintance, particularly taking the level of analysis/assessment and the required knowledge and observation of the candidate into consideration. In combination with such future research foci, qualitative studies to determine the causes for the variably appearing differences between self- and peer evaluations ought to be conducted. Finally, criterion validity studies with instruments that measure motivation in other related areas could enhance our understanding of the qualities of the ICMS and possibly better illuminate the relationship between anxiety and self-efficacy.

In conclusion, the ICMS provides SIHRM program administrators with the possibility to be socially responsible by reliably assessing the ICM of their internationally operating employees, their families, and locals. Through the strategic application of the ICMS, the development of mutually satisfying relationships between MNEs and host culture natives should be facilitated and enhanced. This would result in a positive contribution by HR toward the corporate bottom line.

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References


THE INTERCULTURAL COMMUNICATION MOTIVATION SCALE


