

## Chapter #21

# A CROSS-CULTURAL COMPETENCY SCALE FOR INTERNATIONAL ASSIGNEES

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### ABSTRACT

The aim of this study was to develop a cross-cultural competency scale based on perspectives from the experiential model of cross-cultural learning skills for successful adaptation of international assignees. The study involved 134 participants from 41 countries who studied at a graduate school in Japan, specializing in international relations and international management. Maximum likelihood exploratory factor analysis was conducted with varimax rotation, extracting three latent components of cross-cultural competency: building relationships, translation of complex information, and conflict management. To validate those components, confirmatory factor analysis was conducted with the same group of participants. Results showed acceptable levels of model fit, and the reliability of the three components ranged from 0.83 to 0.87. Accordingly, the cross-cultural competency scale developed in this study seems to be an effective measurement model to analyze cross-cultural competencies.

*Keywords:* cross-cultural competencies, scale development, experiential model, international graduate students.

### 1. INTRODUCTION

Numerous cross-cultural competencies for effective performance and adaptation to culturally diverse working situations have been identified and discussed over the past few decades (Bird, Mendenhall, Stevens, & Oddou, 2010; Leiba-O'Sullivan, 1999). In the field of international management as well as cross-cultural psychology, these competencies have been theoretically integrated into several key domains (Bird et al., 2010; Johnson, Lenartowicz, & Apud, 2006; Lloyd & Härtel, 2010; Matveer & Merz, 2014; Yamazaki & Kayes, 2004). Such integration helps both scholars and practitioners capture an overall picture of cross-cultural competencies. Among cross-cultural competency classifications, the work of Yamazaki and Kayes (2004); Kayes, Kayes, & Yamazaki (2005), which was conceptualized using experiential learning theory (Kolb, 1984; Kolb & Kolb, 2017), highlighted successful expatriate adaptation to cross-cultural situations and proposed the experiential model of cross-cultural learning skills. However, a scale for the cross-cultural competencies described in the model was not provided. This study thereby aimed to develop a cross-cultural competency scale based on that work.

We focused the experiential model on cross-cultural learning skills because it seems relevant to cross-cultural learning situations where people learn and develop cross-cultural competencies. The model relates to experiential learning theory, which proposes key learning modes, generating learning styles (Kolb, 1984; Kolb & Kolb, 2017). The learning modes required in cross-cultural learning situations are related to several cultural aspects, which include individualism-collectivism, high vs. low context culture, and field-dependent vs. field-independent style (Yamazaki, 2005). When considering a relationship between

learning styles and learning skills, “learning style describes basic and generalized dimensions of individuality in learning, while a learning skill is more situational and subject to intentional development” (Boyatzis & Kolb, 1991, p. 279). We believe that a cross-cultural competency scale could be a useful tool to conduct empirical research on cross-cultural learning style in relation to cross-cultural competencies.

## 2. LITERATURE REVIEW

### 2.1. Cross-Cultural Competencies and Classifications

In this study, *cross-cultural competency* is considered the same as *intercultural competency* because the terms are used interchangeably in the literature (Draghici, 2014). Cross-cultural competence is defined as an “individual’s effectiveness in drawing upon a set of knowledge, skills, and personal attributes in order to work successfully with people from different national cultural backgrounds at home or abroad” (Johnson et al., 2006, p. 530). Classifications of a myriad of cross-cultural competencies typically consisted of a few dimensions with several competencies each. For example, based on differences between stable and dynamic competencies, Leiba-O’Sullivan (1999) proposed three competency dimensions—self-maintenance, cross-cultural relationships, and perceptual dimensions—with a total of 13 cross-cultural competencies (e.g., cultural knowledge, conflict-resolution skills, and stress-management skills). Bird et al. (2010) presented three dimensions similar to those of Leiba-O’Sullivan (1999), but each dimension had a different number and type of competency: the first dimension of perception management had four competencies (e.g., inquisitiveness, tolerance of ambiguity, and cosmopolitanism); the second dimension of relationship management had five competencies (e.g., relationship interest, interpersonal engagement, and emotional sensitivity); and the third dimension of self-management had seven competencies (e.g., optimism, self-confidence, and self-identity).

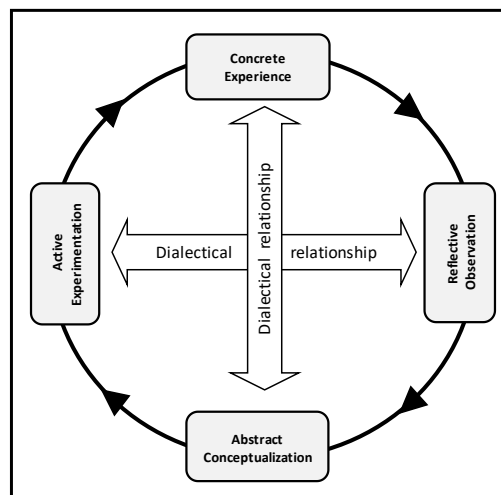
In other studies, Lloyd and Härtel (2010) and Matveer and Merz (2014) applied three fundamental psychological dimensions of affect, cognition, and behavior, but they presented different competencies in each dimension. Lloyd and Härtel (2010) proposed two competencies of cognitive complexity and goal orientation in the cognitive dimension; three competencies of dissimilarity openness, tolerance for ambiguity, and cultural empathy in the affective dimension; and three competencies of intercultural communication competence, emotional management skills, and conflict management skills in the behavioral dimension. Matveer and Merz (2014) documented six competences in the cognitive dimension (e.g., cultural-specific knowledge, attitudes, and motivation), two competencies in the affective dimension (i.e., emotional stability/control and cultural empathy), and four competencies in the behavioral dimension (i.e., experience, social initiative, leadership, and communication). Even if the same or similarly worded dimensions were used in cross-cultural competency classifications, there were differences in the list of competencies. Consequently, each classification system may have unique types of cross-cultural competencies as factorial components.

For more comprehensive understanding, measures are necessary. This study focused on the experiential model of cross-cultural learning skills described by Yamazaki and Kayes (2004); Kayes et al., 2005) that did not propose measures. Thus, the study attempted to fill this gap by developing a scale of cross-cultural competencies. Before further discussing cross-cultural learning skills, we explain Kolb’s experiential learning theory (Kolb, 1984; Kolb & Kolb, 2017), which led to the cross-cultural learning skill model.

## 2.2. Kolb's Experiential Learning Theory

By integrating views from influential theorists such as James, Dewey, Lewin, Piaget, Vygotsky, and Jung, (Kolb, 1984; Kolb & Kolb, 2017) developed experiential learning theory. His learning theory includes four basic learning modes that are key to individual learning. These modes are concrete experience, reflective observation, abstract conceptualization, and active experimentation. Each learning mode plays an important specific role for learning. The concrete experience mode serves to grasp immediate experience by feeling and sensing. Subsequently, the reflective observation mode transforms immediate experience by carefully and reflectively observing in order to form a basis for the abstract conceptualization mode, which requires thinking and applying logic and concepts to create ideas. Then, the active experimentation mode involves transforming conceptualized ideas into actions, creating a foundation of new experience that the concrete experience mode can then catch. The concrete experience mode is dialectically opposed to the abstract conceptualization mode, while the reflective observation mode is dialectically contrasted with the active experimentation mode. Figure 1 illustrates Kolb's experiential learning theory.

*Figure 1.*  
*Kolb's experiential learning theory.*



## 2.3. The Relevance of Kolb's Learning Theory to Cross-Cultural Situations

The four learning modes in Kolb's theory are important when considering research on cross-cultural psychological studies. If people experience an adaptation process including culture shock in different cultural situations, three fundamental psychological elements of affect, cognition, and behavior are influenced (Ward, Bochner, & Furnham, 2001). In Kolb's learning model, the mode of concrete experience relates to affective aspects; the two modes of reflective observation and abstract conceptualization address a broad range of cognitive aspects including perception; and the active experimentation mode is associated with behavior aspects. Also, Kolb's experiential learning theory proposes "a comprehensive set of skills—including valuing, thinking, deciding, and acting—necessary for a variety of activities related to cross-cultural learning" (Yamazaki & Kayes, 2004, p. 365). Because of

these unique features, a large number of cross-cultural studies have applied Kolb's theory (e.g., Auyeung & Sands, 1996; Barmeyer, 2004; Holtbrugge & Mohr, 2010; Joy & Kolb, 2009; Yamazaki & Attrapreyangkul, 2014; Yamazaki & Kayes, 2010). His learning model seems to be a good fit for the analysis of cross-cultural learning situations. The present study focused on the experiential model of cross-cultural learning skills (Kayes et al., 2005; Yamazaki & Kayes, 2004) based on Kolb's experiential learning theory.

#### **2.4. Scale Development of Cross-Cultural Competencies**

The classification in the experiential model of cross-cultural learning skills (Kayes et al., 2005; Yamazaki & Kayes, 2004) relied on an extensive literature review of approximately 100 empirical studies to search for competencies important for effective cross-cultural learning in expatriates (Kayes et al., 2005). The model has four dimensions with seven competencies (Kayes et al., 2005; Yamazaki & Kayes, 2004). Those four dimensions theoretically relate to four learning modes encompassed into Kolb's experiential learning theory (Yamazaki & Kayes, 2004), as discussed earlier.

First, the interpersonal dimension corresponds to the concrete experience mode and includes the two competencies of building relationships within another culture (BR) and valuing people of different cultures (VP). The former competency refers to the ability to build, develop, and maintain good, trustful, and cooperative relationships with those of different cultures, while the latter refers to the ability to respect different cultures and understand values and behaviors in relation to them.

Second, the information dimension is associated with the reflective observation mode, including the two competencies of listening and observation (LO) and coping with ambiguity (CA). The LO competency requires individuals to patiently listen to and observe people of different cultures. The CA competency calls for tolerating unfamiliar behaviors and uncertain situations in different cultures and coping with the ambiguity resulting from unfamiliar actions or nonverbal behaviors based on cultural differences.

Third, the analytical dimension relates to the abstract conceptualization mode. It has one competency, translation of complex information (TCI), which involves communicating with people of different cultures by applying simple language to describe complex information and translating complicated ideas into plain words.

The final dimension is linked with active experimentation. This dimension consists of two competencies: taking action and initiative (TAI) and managing others as conflict management (CM). The former competency refers to an action orientation—taking initiative and making risk-taking decisions in cross-cultural situations. The latter competency relates to interaction skills between host people and expatriates as a managerial activity. More specifically, it involves resolving conflicts between peoples of different cultures to establish a good relationship between them (Kayes et al., 2005).

### **3. METHODS**

#### **3.1. Sample and Procedures**

Since this study was intended to develop a cross-cultural competency scale, we selected an international-focused graduate school in Japan as a research site relevant to international and cross-cultural activities. Over 90% of graduate students were from non-Japanese countries around the world, and classes were conducted in English, whereas students often encountered Japanese culture outside of the school. A total of 134 students participated in this study: 70 graduates specializing in international relations and 64 focused on international management. They came from 41 countries; Japanese students comprised

only 3.7% of the study group. Their average age was 30.87 years ( $SD = 4.32$ ), and most had work experience before beginning graduate school. Of the student participants, 75 (56%) were men and 59 (44%) were women. They had at least one overseas experience including their current graduate program in Japan, and their average number of overseas experiences was 6.41 ( $SD = 6.81$ ).

Ethics approval for this study was granted by the university's Department of Business Administration in September 2019. One of the authors visited the graduate school and asked its faculty members to assist in gathering data from the students in October 2019. A survey package was placed in the campus mailbox for graduate students in the international relations program and distributed in class for graduate students in the international management program. Questionnaires gathered demographic but not personally identifiable information. One month after survey distribution, questionnaires from 136 graduate students were picked up. Two questionnaires did not follow survey instructions, leaving 134 surveys for analysis.

### **3.2. Potential Competency Items for Scale Development**

To develop the cross-cultural competency scale, the authors created 41 question items based on the experiential model with seven cross-cultural competency classifications. Among the 41 items, there were six items for building relationships (BR), six for valuing people (VP), six for listening and observation (LO), five for coping with ambiguity (CA), five for translation of complex information (TCI), six for taking action and initiative (TAI), and seven for conflict management (CM). Sample questions for each competency are as follows: "Develop trustful relationships with people" for BR; "Respect different cultures and values" for VP; "Patiently listen to people, even if they cannot speak fluently" for LO; "Tolerate the unfamiliar behaviors of people" for CA; "Communicate with people using simple language even if the information is complex" for TCI; "Become an action-oriented person if necessary" for TAI; and "Resolve conflicts among people" for CM. Survey instructions explained that the term *people* in the questionnaire referred to those from a different cultural background and/or those with different nationalities. The 41 items were randomly allocated in the questionnaire, applying a 7-point Likert-type scale as follows: 1 = cannot do at all; 2 = cannot do satisfactorily; 3 = cannot do a little; 4 = can do almost; 5 = can do ordinarily; 6 = excellent; and 7 = extremely excellent.

## **4. RESULTS**

### **4.1. Exploratory Factor Analysis**

For exploratory factor analysis (EFA), maximum likelihood factor analysis was conducted with varimax rotation to extract latent factors from 41 items based on the cross-cultural learning model. The sample for the EFA was 134 graduate students. To identify key factors of EFA, we applied the guideline of an eigenvalue  $>1$  with scree plot investigation. To evaluate whether an item was kept or eliminated, we relied on three criteria: (a) a factor loading  $>0.5$  as a cutoff value (Maskey, Fei, & Nguyen, 2018), with that loading applicable for a sample size between 100 and 200 (Field, 2013); (b) the elimination of cross-loading items  $>0.4$  (Maskey et al., 2018); and (c) at least three items with  $>0.5$  per factor to account for the total variance (Costello & Osborne, 2005; Thompson, 2004).

The first EFA of 41 items resulted in eight factors, as illustrated in Table 1. Bold numbers in the table were described as a factor loading  $>0.5$ .

*Table 1.*  
*Results of first exploratory factor analysis with 134 participants.*

Competency Items	Factor								<i>h</i> <sup>2</sup>
	1	2	3	4	5	6	7	8	
BR1	<b>0.64</b>								0.72
BR2	<b>0.77</b>								0.78
BR3	<b>0.83</b>								0.80
BR4	0.43								0.78
BR5									0.62
BR6	<b>0.61</b>								0.74
VP1									0.64
VP2	0.49								0.73
VP3									0.62
VP4									0.57
VP5							<b>0.79</b>		0.79
VP6	0.44		0.47						0.69
LO1			<b>0.58</b>						0.62
LO2									0.63
LO3	0.41		<b>0.50</b>						0.75
LO4			0.47						0.48
LO5									0.46
LO6							0.40		0.66
CA1			<b>0.52</b>						0.67
CA2		0.45	0.48						0.72
CA3		0.42			0.43				0.68
CA4			0.49						0.60
CA5								0.45	0.58
TCI1					<b>0.61</b>				0.62
TCI2					<b>0.55</b>				0.77
TCI3					<b>0.76</b>				0.76
TCI4					<b>0.62</b>				0.70
TCI5	0.41			0.40					0.65
TAI1									0.60
TAI2				<b>0.85</b>					0.72
TAI3						<b>0.96</b>			0.75
TAI4				0.44					0.59
TAI5				<b>0.62</b>					0.72
TAI6						<b>0.71</b>			0.76
CM1		<b>0.66</b>							0.76
CM2		<b>0.70</b>							0.71
CM3		<b>0.62</b>							0.68
CM4		0.43							0.61
CM5									0.72
CM6		<b>0.57</b>							0.58
CM7		<b>0.61</b>							0.74
Eigenvalue	16.41	2.51	1.81	1.69	1.49	1.4	1.26	1.05	
% of total variance	40.03	6.11	4.41	4.11	3.64	3.41	3.07	2.57	
Total variance								67.37	

*Note.* BR = building relationships, VP = valuing people of different cultures, LO = listening and observation, CA = coping with ambiguity, TCI = translation of complex information, TAI = taking action and initiative, CM = conflict management.

Among all items, 28 were eliminated: 20 had a factor loading <0.5, 5 had fewer than three items with a factor constituent >0.5, and 1 had cross-loading items >0.4, which further led to the change from 3 items to 2 items with a factor constituent >0.5. Consequently, 13 items remained, involving three factors: Factor 1 had four items (BR1, BR2, BR3, and BR6); Factor 2, five items (CM1, CM2, CM3, CM6, and CM7); and Factor 3, four items (TCI1, TCI2, TCI3, and TCI4). These 13 items were kept for further examination.

The second EFA of 13 items produced three factors that consisted of the 13 items with a factor loading >0.5, as described in Table 2. However, among them, 2 items were excluded due to cross-loading items >0.4 (BR6 and TCI2); thus, 11 items remained. With 2 items excluded, Factor 1 of the second EFA included five items (CM1, CM2, CM3, CM6, and CM7); Factor 2 had three items (BR1, BR2, and BR3); and Factor 3, three items (TCI1, TCI3, and TCI4). Accordingly, the remaining 11 items were further investigated.

The third EFA of 11 items resulted in three dominant factors that were the same as those of the second EFA results. As illustrated in Table 3, these three factors extracted from the third EFA satisfied the three criteria, so all 11 items were kept. Again, Factor 1 had five items related to conflict management; Factor 2 had three items related to the competence of translation of complex information; and Factor 3 had three items corresponding to building relationships. All three factors had a factor loading of >0.5. Cross-loading values of those factors ranged from 0.17 to 0.34 for Factor 1 (conflict management), 0.15 to 0.37 for Factor 2 (translation of complex information), and 0.18 to 0.25 for Factor 3 (building relationships). In terms of convergent and discriminant validity, results from the third EFA supported the three factors. Table 4 lists all 11 items.

*Table 2.*  
*Results of second exploratory factor analysis with 134 participants.*

Competency Items	Factor			<i>h</i> <sup>2</sup>
	1	2	3	
BR1		<b>0.67</b>		0.60
BR2		<b>0.78</b>		0.61
BR3		<b>0.81</b>		0.66
BR6	0.44	<b>0.63</b>		0.61
TIC1			<b>0.61</b>	0.47
TIC2	0.47		<b>0.64</b>	0.62
TIC3			<b>0.87</b>	0.68
TIC4			<b>0.69</b>	0.59
CM1	<b>0.75</b>			0.60
CM2	<b>0.71</b>			0.53
CM3	<b>0.63</b>			0.56
CM6	<b>0.56</b>			0.40
CM7	<b>0.68</b>			0.55
Eigenvalue	6.63	1.32	1.27	
% of total variance	50.99	10.12	9.81	
Total variance			70.92	

*Note.* BR = building relationships, TCI = translation of complex information, CM = conflict management.

*Table 3.*  
*Results of third exploratory factor analysis with 134 participants.*

Competency Items	Factor			$h^2$
	1	2	3	
BR1			<b>0.66</b>	0.59
BR2			<b>0.77</b>	0.60
BR3			<b>0.80</b>	0.62
TIC1		<b>0.65</b>		0.46
TIC3		<b>0.82</b>		0.60
TIC4		<b>0.71</b>		0.57
CM1	<b>0.77</b>			0.59
CM2	<b>0.73</b>			0.53
CM3	<b>0.64</b>			0.54
CM6	<b>0.57</b>			0.38
CM7	<b>0.68</b>			0.53
Eigenvalue	5.54	1.29	1.10	
% of total variari	50.34	11.74	9.99	
Total variance			72.07	

*Note.* BR = building relationships, TCI = translation of complex information, CM = conflict management.

*Table 4.*  
*Descriptions of 11 items based on three factors.*

11 Items	Cross-Cultural Competencies
BR1	Develop trustful relationships with people
BR2	Make and maintain good relationships with people
BR3	Build friendships with people
TIC1	Communicate with people using simple language even if the information is complex
TIC3	Use simple words to describe complicated information in a conversation with people
TIC4	Translate complicated information into plain words when talking to people
CM1	Resolve conflicts among people
CM2	Develop bridges between one member and others in a conflicting situation
CM3	Alleviate conflicting situations among people
CM6	Decrease emotional tension among people
CM7	Act to make a situation better when people have conflicts

*Note.* The term *people* in this questionnaire refers to those who have a different cultural background and/or those who have different nationalities.



## 4.2. Confirmatory Factor Analysis

This study conducted confirmatory factor analysis (CFA) on the same 134 graduate students to verify the validity of the three dominant factors extracted from EFA: building relationships, translation of complex information, and conflict management. Results of the CFA revealed that the fit indices were acceptable ( $\chi^2 = 41.592$ ,  $p > .05$ ; minimum discrepancy per degree of freedom [CMIN/df] = 1.014; goodness-of-fit index [GFI] = 0.946; comparative fit index [CFI] = 0.999; incremental fit index [IFI] = 0.999; Tucker–Lewis index [TLI] = 0.999; root mean square error of approximation [RMSEA] = 0.010; standardized root mean square residual [SRMR] = 0.038). It is noted that we also performed CFA in terms of the theorized model consisting of the original seven cross-cultural competency classifications on the same sample. Results of the CFA revealed that the fit indices were weak ( $\chi^2 = 1495.32$ ,  $p < 0.01$ ; CMIN/df = 1.973; GFI = 0.659; CFI = 0.778; IFI = 0.782; TLI = 0.760; RMSEA = 0.086; SRMR = 0.080). Those results illustrated that the measurement model with a three-factor structure was better than the original, as summarized in Table 5.

Additionally, to confirm the discriminant validity among the three factors, we examined average variance extracted (AVE). AVE was 0.55 for the competence of building relationships, 0.53 for translation of complex information, and 0.46 for conflict management—greater than the squared correlations, which ranged from 0.28 to 0.32. Those results further verified the discriminant validity (Hair, Black, Babin, & Anderson, 2010). Finally, Cronbach’s  $\alpha$  coefficients for the competence of building relationships, translation of complex information, and conflict management were 0.87, 0.83, and 0.86, respectively, showing acceptable reliability.

Table 5.  
Results of confirmatory factor analysis with fit indices.

Measurement model	$\chi^2$	CMIN/DF	GFI	CFI	IFI	TLI	RMSEA	SRMR
Three competency factors (11 items)	41.592	1.014	0.946	0.999	0.999	0.999	0.01	0.038
Seven competency classifications (41 items)	1495.32**	1.973	0.659	0.778	0.782	0.76	0.086	0.08

*Note.* CMIN/df = minimum discrepancy per degree of freedom; GFI = goodness-of-fit index; CFI = comparative fit index; IFI = incremental fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual;  $N = 134$ ; \*\* $p < 0.01$ .

## 5. DISCUSSION

The study attempted to develop a cross-cultural competency scale based on the experiential model of cross-cultural learning skills. The model had seven classifications of cross-cultural competencies, but this study resulted in three latent components as a measurement model with the three competencies of building relationships (BR), translation of complex information (TCI), and conflict management (CM). These competencies reflect the interpersonal, analytical, and action areas. Based on experiential learning theory (Kolb, 1984; Kolb & Kolb, 2017), the interpersonal skill area relates to the learning mode of

concrete experience (Boyatzis & Kolb, 1995; Yamazaki & Kayes, 2004) that “emphasizes feeling as opposed to thinking” (Kolb, 1984, p.68); the analytical skill area relates to abstract conceptualization, accentuating thinking; and the action skill area relates to active experimentation, which requires taking action and making practical applications. It can be inferred that those three skills areas are congruent with the affective, cognitive, and behavioral dimensions described by several studies as key dimensions of cross-cultural competency (Lloyd & Härtel, 2010; Matveer & Merz, 2014). The cross-cultural psychology literature indicated that dimensions of affect, cognition, and behavior are fundamental areas of cross-cultural psychology that focus on cultural contact with cultural shock (Ward et al., 2001). From this notion, the measurement model developed to analyze a degree of three cross-cultural competencies (i.e., BR, TCI, and CM) might be utilized to examine people’s cultural contact, including cultural shock. This raises an interesting question as to how three cross-cultural competences in the measurement model have an influence on cultural shock.

The present study did not verify four cross-cultural competencies (i.e., VP, LO, CA, and TIA) in the experiential model of cross-cultural learning skills. Each of these four competencies is thought to be conceptually distinct within the experiential model, but two of them might be a more generic learning mode rather than a specific situational skill: the competencies of “listening and observation” (LO) and “taking action and initiative” (TAI). Thus, the experiential model might possess two different types of dimensions: learning abilities and skills. As described in the literature review, the mode of reflective observation in Kolb’s learning model requires people to reflectively observe with carefulness (Kolb, 1984), whereas the competency of LO calls for them to patiently listen to and observe people of different cultures. Similarly, the mode of active experimentation involves doing and taking some risk (Kolb, 1984), while the competency of TAI represents an action orientation by taking initiative and making risk-taking decisions in cross-cultural situations. Those two competencies theorized in the experiential model might lead to respondents applying a general learning ability in a cross-cultural situation. As a result, these two competencies might not be verified properly in this study. This perspective suggests a future study: examining the experiential model of cross-cultural learning skills in terms of the structure of general learning abilities and contextual skills. Research operationalization of this experiential model would require separation of the dimension of cross-cultural learning abilities and the dimension of cross-cultural learning skills.

Moreover, although the four cross-cultural learning competencies (i.e., VP, LO, CA, and TAI) seem critical for the effective adaptation of international assignees, the competence of coping with ambiguity (CA) is particularly important for assignees, who often encounter “the many uncertainties and the complexity of the global economy” (Caligiuri & Tarique, 2012, p. 614). Several researchers have also listed CA as tolerance of ambiguity (Bird et al., 2010; Caligiuri & Tarique, 2012; Lloyd & Härtel, 2010). When closely examining results of the EFA, CA competency items with a factor loading  $>0.4$  did not converge into one factor or component. One reason might be that the description of each item of the CA competency is difficult for the participants to capture in cross-cultural situations. If so, further research on CA and its relevance is needed.

Finally, limitations of this study include methodological issues such as a small sample size, the participation of international graduate students rather than ongoing international assignees, and use of the EFA sample for CFA.

## 6. CONCLUSIONS

This study developed a cross-cultural competency scale based on an experiential model listing essential competencies for successful adaptation to cross-cultural situations. The study results led to a measurement model with the three competencies of building relationships, translation of complex information, and conflict management. Although the study has several limitations, the cross-cultural competency scale developed in this study seems to be an effective measurement model to analyze people's competencies in cross-cultural situations. A promising study would be to investigate how the measurement model using the three competencies effectively distinguishes between high and ordinary performers in cross-cultural situations, along with further empirical examination of the experiential model of cross-cultural learning skills. Finally, as discussed earlier, it seems important that a future study reexamine the experiential model of cross-cultural learning skills to see whether it holds two different dimensions of cross-cultural learning abilities and cross-cultural learning skills. Such future studies will continue to contribute to the development of cross-cultural psychology for research on international assignees who need to adapt to different cultural situations.

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